

# Product Catalog for Distribution



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Never stop thinking

**Edition July 2006**

**Published by  
Infineon Technologies AG  
81726 München, Germany**

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We are pleased to present the updated Product Catalog for Distribution 2006/2007. This catalog outlines the full range of semiconductors available from Infineon Technologies through our distribution channel.

Reflecting the depth and range of our offering, this overview extends from communication devices and microcontrollers through power semiconductors and discretes to sensors and security solutions. For fast and easy reference, we have kept technical details to a minimum and added an overview of all device names and order codes at the back. Please refer to our data sheets, data books and user's manuals if you require in-depth technical data on a given product.

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- ▼ Newly included components
- Components not suitable for new design
- ◆ Products available through dedicated distributors
- SMD (**S**urface **M**ounted **D**eVICES)  
gray lines indicate SMDs
- ® Registered trademark
- ™ Trademark

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## Communication

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| Type                                        | Ordering Code | Package       | Description                                                                                                                                                                                                                         |
|---------------------------------------------|---------------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Wired Communication Broadband Access</b> |               |               |                                                                                                                                                                                                                                     |
| <b>Symmetrical DSL</b>                      |               |               |                                                                                                                                                                                                                                     |
| ▼ PEF 21624 E V1.2-G                        | SP000054059   | P-LBGA-324-2  | SOCRATES® (SDFE-1): 2nd. generation symmetrical DSL front end with 1-channel for TDM applications, tray                                                                                                                             |
| ▼ PEF 22624 E V1.3-G                        | SP000081099   | PG-LBGA-324-2 | SOCRATES® (SDFE-2): 2nd. generation symmetrical DSL front end with 2-channel for TDM applications, tray                                                                                                                             |
| ▼ PEF 24624 E V2.1-G                        | SP000208961   | PG-LBGA-324-2 | SOCRATES® (SDFE-4): 2nd. generation symmetrical DSL front end with 4-channel for TDM applications, tray                                                                                                                             |
| ▼ PEF 24624 E V2.1-G                        | SP000223350   | PG-LBGA-324-2 | SOCRATES® (SDFE-4): 2nd. generation symmetrical DSL front end with 4-channel for TDM applications, tape & reel                                                                                                                      |
| ▼ PEF 24625 E V1.2-G                        | SP000054060   | PG-BGA-484-1  | SOCRATES® (SDC-16i): 2nd. generation symmetrical DSL controller for 16-channels and IMA (SDC-16i). Only available as part of SOCRATES®-16Bis chipset, which consists of 1 x PEF24625 (SDC-16i) + 4 x PEF 24624 (SDFE-4), tray       |
| ▼ PEF 24625 E V1.2-G                        | SP000223349   | PG-BGA-484-1  | SOCRATES® (SDC-16i): 2nd. generation symmetrical DSL controller for 16-channels and IMA (SDC-16i). Only available as part of SOCRATES®-16Bis chipset, which consists of 1x PEF24625 (SDC-16i) + 4 x PEF 24624 (SDFE-4), tape & reel |
| ▼ PEF 21628 E V1.1-G                        | SP000213076   | PG-LBGA-324-2 | SOCRATES® (SOCRATES®-1e): 3rd. generation EFM-(Ethernet First Mile) symmetrical DSL transceiver with 1-channel for IP, ATM, TDM applications, tray                                                                                  |
| ▼ PEF 22628 E V1.1-G                        | SP000213077   | PG-LBGA-324-2 | SOCRATES® (SOCRATES®-2e): 3rd. generation EFM-(Ethernet First Mile) symmetrical DSL transceiver with 2-channel for IP, ATM, TDM applications, tray                                                                                  |
| ▼ PEF 24628 E V1.1-G                        | SP000085010   | PG-LBGA-324-2 | SOCRATES® (SOCRATES®-4e): 3rd. generation EFM-(Ethernet First Mile) symmetrical DSL transceiver with 4-channel for IP, ATM, TDM applications, tray                                                                                  |
| ▼ PEF 21627 E V1.1-G                        | SP000218166   | PG-LBGA-324-2 | SOCRATES® (SOCRATES®-1U): 3rd. generation symmetrical DSL front end with 1-channel for ATM, TDM, IP applications, tray                                                                                                              |
| ▼ PEF 22627 E V1.1-G                        | SP000218168   | PG-LBGA-324-2 | SOCRATES® (SOCRATES®-2U): 3rd. generation symmetrical DSL front end with 2-channel for ATM, TDM, IP applications, tray                                                                                                              |
| ▼ PEF 24627 E V1.1-G                        | SP000208962   | PG-LBGA-324-2 | SOCRATES® (SOCRATES®-4U): 3rd. generation symmetrical DSL front end with 4-channel for ATM, TDM, IP applications, tray                                                                                                              |
| ▼ EASY SDFE-2                               | SP000008138   | —             | SOCRATES® (SDFE-2): Evaluation board for PEF 22624 (SDFE-2)                                                                                                                                                                         |
| ▼ EASY SDFE-4                               | SP000008101   | —             | SOCRATES® (SDFE-4): Evaluation board for PEF 24624 (SDFE-4)                                                                                                                                                                         |
| ▼ EASY 24624 MII                            | SP000008100   | —             | SOCRATES® (SDC-16i): Evaluation board for PEF 24625 (SDC16i)                                                                                                                                                                        |
| ▼ EASY 24624 TDM                            | SP000007925   | —             | SOCRATES®: TDM module for EASY 24624 MII. This optional board gives TDM connection to EASY 24624 MII for testing purposes                                                                                                           |
| ▼ EASY 24628 MII                            | SP000089850   | —             | SOCRATES® (SOCRATES®-4e): Evaluation board for PEF 24628                                                                                                                                                                            |
| ▼ EASY 24628 UTOPIA                         | SP000244336   | —             | SOCRATES® (SOCRATES®-4e): Evaluation board for PEF 24628                                                                                                                                                                            |

SMD = Surface Mounted Device

| Type | Ordering Code | Package | Description |
|------|---------------|---------|-------------|
|------|---------------|---------|-------------|

## Wired Communication Broadband Access

### ADSL

|                       |             |                |                                                                                                                                                   |
|-----------------------|-------------|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| ▼ PSB 50510 E V1.3-G  | SP000068030 | PG-LBGA-256-1  | AMAZON-M: Single Chip ADSL/2/2+ cpe solution with integrated analog front end (AFE) and line driver (LD). 3-port switch, PCI, 1xMII, 1 x TP, tray |
| ▼ PSB 50505 E V1.3-G  | SP000223783 | PG-LBGA-256-1  | AMAZON-ME: Single Chip ADSL/2/2+ cpe solution with integrated analog front end (AFE) and line driver (LD). 3-port switch, PCI, 2xMII, tape & reel |
| ▼ PSB 50505 E V1.3-G  | SP000068029 | PG-LBGA-256-1  | AMAZON-ME: Single Chip ADSL/2/2+ cpe solution with integrated analog front end (AFE) and line driver (LD). 3-port switch, PCI, 2xMII, tray        |
| ▼ PSB 50501 EL V1.2-G | SP000053494 | PG-LFBGA-200-1 | AMAZON-E: Two Chip ADSL/2/2+ solution PSB 50530 (AFE) + PSB 50501 (DFE). 3-port switch, 2xMII, tray                                               |
| ▼ PSB 50530 F V1.2    | SP000017986 | PG-TQFP-64-1   | AMAZON-E: Two Chip ADSL/2/2+ cpe solution PSB 50530 (AFE) + PSB 50501 (DFE). 3-port switch, 2xMII, tray                                           |
| ▼ EASY50505 A V3.0    | SP000234787 | —              | AMAZON-ME: Evaluation board for PSB 50505, annex A                                                                                                |
| ▼ EASY50505 B V3.0    | SP000234788 | —              | AMAZON-ME: Evaluation board for PSB 50505, annex B                                                                                                |
| ▼ EASY50501 A         | SP000069367 | —              | AMAZON-E: Evaluation board for PSB 50501 + PSB 50530, annex A                                                                                     |
| ▼ EASY50501 B         | SP000069368 | —              | AMAZON-E: Evaluation board for PSB 50501 + PSB 50530, annex B                                                                                     |

### VDSL2

|                       |             |               |                                                                                                       |
|-----------------------|-------------|---------------|-------------------------------------------------------------------------------------------------------|
| ▼ PEB 83000 E V1.3-G  | SP000201760 | PG-LBGA-483-1 | VINAX-CPE: Single chip VDSL2 cpe solution with integrated analog front end (AFE) and line driver (LD) |
| ▼ EASY 83000 CPE      | SP000215341 | —             | VINAX-CPE: Evaluation board for PEB 83000                                                             |
| ▼ EASY 83000 HOSTLESS | SP000104531 | —             | VINAX-CPE: Evaluation board for PEB 83000                                                             |

SMD = Surface Mounted Device

| Type | Ordering Code | Package | Description |
|------|---------------|---------|-------------|
|------|---------------|---------|-------------|

## Wired Communication Core Access T/E Carrier

### E1/T1/J1

|                      |             |               |                                                                                                                                            |
|----------------------|-------------|---------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| ▼ PEF 2256 H V2.2-G  | SP000057074 | PG-LBGA-81-1  | FALC56®: Single channel T1/E1/J1 framer, line interface unit (LIU) and signaling controller for long- and short- haul applications, tray   |
| ▼ PEF 22552 E V1.1-G | SP000065628 | PG-LBGA-160-1 | DualFALC®: Dual channel E1/T1/J1 framer, line interface unit (LIU) and signaling controller for long- and short- haul applications, tray   |
| ▼ PEF 22554 E V3.1-G | SP000074240 | PG-LBGA-160-1 | QuadFALC®: Quad channel E1/T1/J1 framer, line interface unit (LIU) and signaling controller for long- and short- haul applications, tray   |
| ▼ PEF 22554 HT V3.1  | SP000064070 | PG-TQFP-144-2 |                                                                                                                                            |
| PEF 22558 E V1.1-G   | SP000008139 | PG-LBGA-256-1 | OctalFALC®: Octal channel E1/T1/J1 framer, line interface unit (LIU) and signaling controller for long- and short- haul applications, tray |
| ▼ PEF 22504 E V2.1-G | SP000081770 | PG-LBGA-160-1 | QuadLIU™: Quad channel E1/T1/J1 line interface unit (LIU) for long- and short- haul applications, tray                                     |
| ▼ PEF 22504 HT V2.1  | SP000209867 | PG-TQFP-144-2 |                                                                                                                                            |
| ▼ PEF 22508 E V1.1-G | SP000029953 | PG-LBGA-256-1 | OctalLIU™: Octal channel E1/T1/J1 line interface unit (LIU) for long- and short- haul applications, tray                                   |
| ▼ PEF 22508 E V1.1-G | SP000223351 | PG-LBGA-256-1 | OctalLIU™: Octal channel E1/T1/J1 line interface unit (LIU) for long- and short- haul applications, tape & reel                            |
| ▼ PEF 22557 E V1.1-G | SP000055478 | PG-LBGA-256-1 | OctalFRAMER™: Octal channel E1/T1/J1 framer, tray                                                                                          |
| ▼ EASY 2256 E V2.2   | SP000106013 | —             | FALC56®: Evaluation board for PEF 2256                                                                                                     |
| ▼ EASY 22552         | SP000202849 | —             | DualFALC®: Evaluation board for PEF 22552                                                                                                  |
| EASY 22554 V3.1      | SP000007919 | —             | QuadFALC®: Evaluation board for PEF 22554                                                                                                  |
| EASY 22558           | SP000053860 | —             | OctalFALC®: Evaluation board for PEF 22558                                                                                                 |
| ▼ EASY 22504         | on request  | —             | QuadLIU™: Evaluation board for PEF 22504                                                                                                   |
| ▼ EASY 22508         | SP000202361 | —             | OctalLIU™: Evaluation board for PEF 22508                                                                                                  |

### E3/T3

|                     |             |              |                                                                                                               |
|---------------------|-------------|--------------|---------------------------------------------------------------------------------------------------------------|
| ▼ PEB 3445 E V2.1-G | SP000226333 | PG-BGA-272-1 | TE3-MUX: DS3 framer with M13 multiplexer, 0°C to 70°C, tray                                                   |
| ▼ PEF 3445 E V2.1-G | SP000226334 | PG-BGA-272-1 | TE3-MUX: DS3 framer with M13 multiplexer, -40°C to 85°C, tray                                                 |
| ▼ PEF 3460 E V1.2-G | SP000088005 | PG-BGA-272-4 | TE3-FALC®: Integrated DS3/E3 framer and T3/E3 line interface unit (LIU) for ATM, Frame Relay and PPP/IP, tray |
| PEF 3452 H V1.3     | SP000007643 | PG-MQFP-44-2 | TE3-LIU™: Single channel line interface unit (LIU) for DS3, STS-1 and E3 applications, tray                   |
| ▼ EASY 3445 V1.2    | SP000007930 | —            | TE3-MUX: Evaluation board for PEB/PEF 3445 (TE3-MUX)                                                          |
| ▼ EASY 3460         | SP000007932 | —            | TE3-FALC®: Evaluation board for PEF 3460 (TE3-FALC®)                                                          |
| ▼ EASY 3452 V1.2    | SP000007947 | —            | TE3-LIU™: Evaluation board for PEF 3452 (TE3-LIU™)                                                            |

SMD = Surface Mounted Device

| Type | Ordering Code | Package | Description |
|------|---------------|---------|-------------|
|------|---------------|---------|-------------|

## Wired Communication Core Access

### HDLC Controller

|                     |             |               |                                                                                                                                                                                                                           |
|---------------------|-------------|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PEB 20525 F V1.3    | SP000007591 | PG-TQFP-100-1 | SEROCCO-H: Two channel serial optimized communication controller for HDLC and PPP. Full duplex data rates on each channel up to 12.5 Mbit/s, 0°C to 85°C, tray                                                            |
| ▼ PEF 20525 F V1.3  | SP000225720 | PG-TQFP-100-1 | SEROCCO-H: Two channel serial optimized communication controller for HDLC and PPP. Full duplex data rates on each channel up to 12.5 Mbit/s, -40°C to 85°C, tape & reel                                                   |
| PEF 20525 F V1.3    | SP000007592 | PG-TQFP-100-1 | SEROCCO-H: Two channel serial optimized communication controller for HDLC and PPP. Full duplex data rates on each channel up to 12.5 Mbit/s, -40°C to 85°C, tray                                                          |
| PEB 20532 F V1.3    | SP000007512 | PG-TQFP-100-1 | SEROCCO-M: Two channel serial optimized communication controller for HDLC and PPP. Full duplex data rates on each channel up to 12.5 Mbit/s, 0°C to 85°C, tray                                                            |
| PEF 20532 F V1.3    | SP000007511 | PG-TQFP-100-1 | SEROCCO-M: Two channel serial optimized communication controller for HDLC and PPP. Full duplex data rates on each channel up to 12.5 Mbit/s, -40°C to 85°C, tray                                                          |
| PEB 20542 F V1.3    | SP000007633 | PG-TQFP-144-2 | SEROCCO-D: Two channel serial optimized communication controller for HDLC and PPP. Full duplex data rates on each channel up to 16 Mbit/s. Integrated DMA controller with 4 independent DMA channels, 0°C to 85°C, tray   |
| PEF 20542 F V1.3    | SP000007634 | PG-TQFP-144-2 | SEROCCO-D: Two channel serial optimized communication controller for HDLC and PPP. Full duplex data rates on each channel up to 16 Mbit/s. Integrated DMA controller with 4 independent DMA channels, -40°C to 85°C, tray |
| ▼ PEB 20256 E V2.2  | SP000205442 | PG-BGA-388-2  | MUNICH256: Multichannel network interface controller for HDLC/PPP with 256 channels and on-chip data management unit, tray                                                                                                |
| EASY 20525 V1.1     | SP000007914 | —             | SEROCCO-H: Evaluation board for PEB/PEF 20525                                                                                                                                                                             |
| EASY 20532 V1.1     | SP000007915 | —             | SEROCCO-M: Evaluation board for PEB/PEF 20532                                                                                                                                                                             |
| EASY 20542 V1.1     | SP000007916 | —             | SEROCCO-D: Evaluation board for PEB/PEF 20542                                                                                                                                                                             |
| EASY 256 V1.1       | SP000007944 | —             | MUNICH256: Evaluation board for PEB 20256                                                                                                                                                                                 |
| EASY 256 E 1T1 V1.1 | SP000007945 | —             | MUNICH256: Reference design for PEB 20256 and PEF 22554 (MUNICH256/QuadFALC®)                                                                                                                                             |

### Interworking Products ATM to Time Slot

|                     |             |              |                                                                             |
|---------------------|-------------|--------------|-----------------------------------------------------------------------------|
| PXB 4219 E V3.4-G   | SP000223294 | PG-BGA-256-1 | IWE8® CMAP: Interworking element between 8 E1/T1 lines and ATM, tray        |
| ▼ PXB 4220 E V3.4-G | SP000017873 | PG-BGA-256-1 | IWE8®: Interworking element between 8 E1/T1 lines and ATM, tray             |
| ▼ PXB 4221 E V3.4-G | SP000017875 | PG-BGA-256-1 |                                                                             |
| ▼ PXF 4222 E V1.3-G | SP000017876 | PG-BGA-388-2 | IWORX®-P: Next generation interworking controller between ATM and PDH, tray |
| ▼ PXF 4225 E V1.3-G | SP000017877 | PG-BGA-388-2 | IWORX®: Interworking controller between ATM and PDH, tray                   |
| EASY 4220           | on request  | —            | IWE8®: Reference design for PXF 4220                                        |
| EASY 4222           | on request  | —            | IWORX-P®: Reference design for PXF 4222                                     |
| EASY 4225           | on request  | —            | IWORX®: Reference design for PXF 4225                                       |

SMD = Surface Mounted Device

| Type | Ordering Code | Package | Description |
|------|---------------|---------|-------------|
|------|---------------|---------|-------------|

## Wired Communication Voice Access

### VoIP

|                       |             |               |                                                                                                                                                                                                       |
|-----------------------|-------------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ▼ PEB 3331 HT V2.1    | SP000232901 | PG-TQFP-100-1 | VINETIC®-1CPE: Single channel codec and VoIP DSP, G.729, G.723.1, iLBC, LEC, T.38, RTP (with patent indemnification fees for vocoders), 0°C to 85°C, tray                                             |
| ▼ PEB 3331 HT V2.1    | SP000083520 | PG-TQFP-100-1 | VINETIC®-1CPE: Single channel codec and VoIP DSP, G.729, G.723.1, iLBC, LEC, T.38, RTP (without patent indemnification fees for vocoders), 0°C to 85°C, tray                                          |
| ▼ PEB 3331 F V2.1     | SP000083521 | PG-TQFP-64-1  | VINETIC®-1CPE: Single channel codec and VoIP DSP, G.729, G.723.1, iLBC, LEC, T.38, RTP (without patent indemnification fees for vocoders), 0°C to 85°C, tape & reel                                   |
| ▼ PEB 3332 F V2.1     | SP000065273 | PG-TQFP-64-1  | VINETIC®-2CPE: Single channel codec and VoIP DSP, G.729, G.723.1, iLBC, LEC, T.38, RTP (without patent indemnification fees for vocoders), 0°C to 85°C, tray                                          |
| ▼ PEB 3332 HT V2.1    | SP000224283 | PG-TQFP-100-1 | VINETIC®-2CPE: Single channel codec and VoIP DSP, G.729, G.723.1, iLBC, LEC, T.38, RTP (without patent indemnification fees for vocoders), 0°C to 85°C, tape & reel                                   |
| ▼ PEF 3332 HT V2.1    | SP000229576 | PG-TQFP-100-1 | VINETIC®-2CPE: Single channel codec and VoIP DSP, G.729, G.723.1, iLBC, LEC, T.38, RTP (with patent indemnification fees for vocoders), -40°C to 85°C, tray                                           |
| ▼ PEB 3332 F V2.1     | SP000065272 | PG-TQFP-64-1  | VINETIC®-2CPE: Single channel codec and VoIP DSP, G.729, G.723.1, iLBC, LEC, T.38, RTP (without patent indemnification fees for vocoders), 0°C to 85°C, tape & reel                                   |
| ▼ PEB 3342 HT V2.1    | SP000201618 | PG-TQFP-100-9 | VINETIC®-2ATA: Dual channel codec and VoIP DSP, G.729, G.723.1, iLBC, LEC, T.38, RTP (without patent indemnification fees for vocoders), 0°C to 85°C, tray                                            |
| PEB 3324 E V1.4-G     | SP000108018 | PG-LBGA-176-3 | VINETIC®-4VIP: Four channel codec and VoIP DSP, G.723, G.729, G.728, T.38 fax relay, LEC, AAL2 and RTP (without patent indemnification fees for vocoders), 0°C to 85°C, tray                          |
| PEB 3324 HL V1.4      | SP000008031 | PG-LQFP-176-2 |                                                                                                                                                                                                       |
| ▼ PEB 3324 HL V1.4 PE | SP000017214 | PG-LQFP-176-2 | VINETIC®-4VIP: Four channel codec and VoIP DSP, G.723, G.729, G.728, T.38 fax relay, LEC, AAL2 and RTP (with patent indemnification fees for vocoders), large packing unit 240 pcs, 0°C to 85°C, tray |
| ▼ PEB 3324 HL V1.4 PE | SP000017208 | PG-LQFP-176-2 | VINETIC®-4VIP: Four channel codec and VoIP DSP, G.723, G.729, G.728, T.38 fax relay, LEC, AAL2 and RTP (with patent indemnification fees for vocoders), large packing unit 40 pcs, 0°C to 85°C, tray  |
| ▼ PEB 3340 HT V2.1    | SP000201482 | PG-TQFP-100-9 | VINETIC®-CL: Two channel VoIP DSP with PCM interface, G.729, G.723.1, iLBC, LEC, T.38, RTP (without patent indemnification fees for vocoders), 0°C to 85°C, tray                                      |
| ▼ PEF 3314 HL V2.2    | SP000018270 | PG-LQFP-176-2 | VINETIC®-4M: Four channel codec with VoIP DSP for G.728, AAL2 and RTP (without patent indemnification fees for vocoders), -40°C to 85°C, tray                                                         |
| ▼ PEF 3314 EL V2.2-G  | SP000053926 | PG-LBGA-144-1 |                                                                                                                                                                                                       |
| ▼ PEF 3314 E V2.2-G   | SP000068753 | PG-LBGA-176-2 |                                                                                                                                                                                                       |
| EASY 334              | SP000007929 | —             | VINETIC®-4VIP: Evaluation board for PEB 3324. Evaluation board includes 1 x EASY 334 + 2 x SMART 4265 (SLIC-E)                                                                                        |

### SLIC + Codec

|                      |             |               |                                                                                                                                                  |
|----------------------|-------------|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| ▼ PEF 3394 HL V2.2   | SP000231959 | PG-LQFP-176-2 | VINETIC®-4C: Fully programmable 4-channel CODEC with voice processing DSP, enhanced feature set, large packing unit 240 pcs, -40°C to 85°C, tray |
| ▼ PEF 3394 HL V2.2   | SP000018278 | PG-LQFP-176-2 | VINETIC®-4C: Fully programmable 4-channel CODEC with voice processing DSP, enhanced feature set, large packing unit 40 pcs, -40°C to 85°C, tray  |
| ▼ PEF 3394 EL V2.2-G | SP000212320 | PG-LBGA-144-1 | VINETIC®-4C: Fully programmable 4-channel CODEC with voice processing DSP, enhanced feature set, large packing unit 160 pcs, -40°C to 85°C, tray |
| ▼ PEF 3394 EL V2.2-G | SP000053927 | PG-LBGA-144-1 | VINETIC®-4C: Fully programmable 4-channel CODEC with voice processing DSP, enhanced feature set, large packing unit 960 pcs, -40°C to 85°C, tray |

SMD = Surface Mounted Device

| Type                                    | Ordering Code | Package       | Description                                                                                                                                         |
|-----------------------------------------|---------------|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Wired Communication Voice Access</b> |               |               |                                                                                                                                                     |
| <b>SLIC + Codec</b><br>(cont'd)         |               |               |                                                                                                                                                     |
| ▼ PEF 3304 EL V2.1-G                    | SP000223348   | PG-LBGA-144-1 | VINETIC®-4S: Fully programmable 4-channel CODEC with voice processing DSP, standard feature set, -40°C to 85°C, tape & reel                         |
| ▼ PEF 3304 EL V2.1-G                    | SP000054559   | PG-LBGA-144-1 | VINETIC®-4S: Fully programmable 4-channel CODEC with voice processing DSP, standard feature set, -40°C to 85°C, tray                                |
| ▼ PEF 3304 HL V2.1                      | SP000053496   | PG-LQFP-176-2 |                                                                                                                                                     |
| ▼ PEF 3304 E V2.1-G                     | SP000053495   | PG-LBGA-176-3 |                                                                                                                                                     |
| ▼ PEB 3165 F V1.1                       | SP000008162   | PG-TQFP-64-1  | SLICOFI®-1 (DuSLIC®): Single channel subscriber line interface codec filter, enhanced feature set, 0°C to 85°C, tape & reel                         |
| ▼ PEB 3164 F V1.1                       | SP000222941   | PG-TQFP-64-1  | SLICOFI®-1S (DuSLIC®): Single channel subscriber line interface codec filter, enhanced feature set, 0°C to 85°C, tape & reel                        |
| ▼ PEB 3164 F V1.1                       | SP000008146   | PG-TQFP-64-1  | SLICOFI®-1S (DuSLIC®): Single channel subscriber line interface codec filter, enhanced feature set, 0°C to 85°C, tray                               |
| PEB 3265 F V1.5                         | SP000007818   | PG-TQFP-64-1  | SLICOFI®-2 (DuSLIC®): Single channel subscriber line interface codec filter, enhanced feature set, 0°C to 85°C, tape & reel                         |
| PEB 3265 F V1.5                         | SP000007817   | PG-TQFP-64-1  | SLICOFI®-2 (DuSLIC®): Single channel subscriber line interface codec filter, enhanced feature set, 0°C to 85°C, tray                                |
| PEB 3264 F V1.4                         | SP000007820   | PG-TQFP-64-1  | SLICOFI®-2S (DuSLIC®): Single channel subscriber line interface codec filter, enhanced feature set, 0°C to 85°C, tape & reel                        |
| PEB 3264 F V1.4                         | SP000007819   | PG-TQFP-64-1  | SLICOFI®-2S (DuSLIC®): Single channel subscriber line interface codec filter, enhanced feature set, 0°C to 85°C, tray                               |
| ▼ PEB 2466 H V2.2                       | SP000007516   | PG-MQFP-64-1  | SICOFI®-4μC (SICOFI® + FlexiSLIC™): Four channel codec filter with PCM and microcontroller interface, large packing unit 84 pcs, 0°C to 85°C, tray  |
| PEB 2466 H V2.2                         | SP000007517   | PG-MQFP-64-1  | SICOFI®-4μC (SICOFI® + FlexiSLIC™): Four channel codec filter with PCM and microcontroller interface, 0°C to 85°C, tape & reel                      |
| PEF 2466 H V2.2                         | SP000007776   | PG-MQFP-64-1  | SICOFI®-4μC (SICOFI® + FlexiSLIC™): Four channel codec filter with PCM and microcontroller interface, -40°C to 85°C, tape & reel                    |
| ▼ PEB 2466 H V2.2                       | SP000007515   | PG-MQFP-64-1  | SICOFI®-4μC (SICOFI® + FlexiSLIC™): Four channel codec filter with PCM and microcontroller interface, large packing unit 504 pcs, 0°C to 85°C, tray |
| PBL 38620/2 SOA                         | SP000017252   | PG-DSO-24-8   | PBL38620 (SICOFI® + FlexiSLIC™): Subscriber line interface circuit (SICOFI-4μC + PBL 38620), -40°C to 85°C, tape & reel                             |
| PBL 38620/2 SHA                         | SP000007870   | P-SSOP-24-1   |                                                                                                                                                     |
| PBL 38620/2 SOT                         | SP000007890   | PG-DSO-24-8   |                                                                                                                                                     |
| PBL 38620/2 QNA                         | SP000017950   | PG-LCC-28-3   |                                                                                                                                                     |
| PBL 38621/2 SOA                         | SP000016951   | P-DSO-24-8    | PBL38621 (SICOFI® + FlexiSLIC™): Subscriber line interface circuit (SICOFI-4μC + PBL 38621), -40°C to 85°C, tape & reel                             |
| PBL 38621/2 SHA                         | SP000007871   | PG-SSOP-24-1  |                                                                                                                                                     |
| PBL 38621/2 SOT                         | SP000007895   | P-DSO-24-8    |                                                                                                                                                     |
| PBL 38621/2 QNA                         | SP000017951   | P-LCC-28-3    |                                                                                                                                                     |
| PBL 38621/2 QNS                         | SP000007891   | P-LCC-28-2    | PBL38621 (SICOFI®+FlexiSLIC™): Subscriber line interface circuit (SICOFI-4μC + PBL 38621), -40°C to 85°C, pre-pack                                  |
| PBL 38630/2 SOA                         | SP000017739   | P-DSO-24-8    | PBL38630 (SICOFI® + FlexiSLIC™): Subscriber line interface circuit (SICOFI-4μC + PBL 38630), -40°C to 85°C, tape & reel                             |
| PBL 38630/2 SOT                         | SP000007899   | P-DSO-24-8    |                                                                                                                                                     |
| PBL 38630/2 QNA                         | SP000017952   | P-LCC-28-3    |                                                                                                                                                     |
| PBL 38630/2 QNT                         | SP000007897   | P-LCC-28-3    |                                                                                                                                                     |
| PBL 38630/2 SOS                         | SP000007898   | P-DSO-24-8    | PBL38630 (SICOFI® + FlexiSLIC™): Subscriber line interface circuit (SICOFI-4μC + PBL 38630), -40°C to 85°C, pre-pack                                |
| PBL 38640/2 SOA                         | SP000016952   | P-DSO-24-8    | PBL38640 (SICOFI® + FlexiSLIC™): Subscriber line interface circuit (SICOFI-4μC + PBL 38640), -40°C to 85°C, tape & reel                             |
| PBL 38640/2 SOT                         | SP000007903   | P-DSO-24-8    |                                                                                                                                                     |
| PBL 38640/2 QNT                         | SP000007901   | P-LCC-28-3    |                                                                                                                                                     |
| PBL 38640/2 QNA                         | SP000017953   | P-LCC-28-3    |                                                                                                                                                     |
| PBL 38650/2 QNT                         | SP000007905   | P-LCC-28-3    | PBL38650 (SICOFI® + FlexiSLIC™): Subscriber line interface circuit (SICOFI-4μC + PBL 38650), -40°C to 85°C, tape & reel                             |
| PBL 38650/2 QNA                         | SP000017954   | P-LCC-28-3    | PBL38650 (SICOFI® + FlexiSLIC™): Subscriber line interface circuit (SICOFI-4μC + PBL 38650), -40°C to 85°C, pre-pack                                |
| PBL 38650/2 QNS                         | SP000007904   | P-LCC-28-3    |                                                                                                                                                     |

SMD = Surface Mounted Device

| Type                                    | Ordering Code | Package       | Description                                                                                                                                 |
|-----------------------------------------|---------------|---------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Wired Communication Voice Access</b> |               |               |                                                                                                                                             |
| <b>SLIC + Codec</b><br>(cont'd)         |               |               |                                                                                                                                             |
| ▼ PEB 4265 T V2.1                       | SP000101234   | PG-DSO-20-5   | SLIC-E (DuSLIC®): Subscriber line interface circuit, enhanced feature set, -40°C to 85°C, tape & reel                                       |
| ▼ PEB 4265 V V2.1                       | SP000101233   | PG-VQFN-48-4  |                                                                                                                                             |
| ▼ PEB 4265-2 V T V2.1                   | SP000206901   | PG-DSO-20-5   | SLIC-E2 (DuSLIC®): Subscriber line interface circuit, enhanced feature set, -40°C to 85°C, tape & reel                                      |
| ▼ PEB 4265-2 V V2.1                     | SP000102911   | PG-VQFN-48-4  |                                                                                                                                             |
| PEF 4268 F V1.2                         | SP000211403   | PG-TQFP-48-1  | SLIC-DC (DuSLIC®): Subscriber line interface circuit, with integrated DC/DC converter, -40°C to 85°C, tape & reel                           |
| PEF 4268 F V1.2                         | SP000063679   | PG-TQFP-48-1  | SLIC-DC (DuSLIC®): Subscriber line interface circuit, with integrated DC/DC converter, -40°C to 85°C, tray                                  |
| PEF 4268 T V1.2                         | SP000063678   | PG-DSO-24-8   | SLIC-DC (DuSLIC®): Subscriber line interface circuit, with integrated DC/DC converter, -40°C to 85°C, tape & reel                           |
| PEB 4266 V V1.2                         | SP000007763   | PG-VQFN-48-4  | SLIC-P (DuSLIC®): Subscriber line interface circuit, enhanced power management, 0°C to 85°C, tape & reel                                    |
| PEB 4266 T V1.2                         | SP000007528   | PG-DSO-20-5   |                                                                                                                                             |
| ▼ PEF 4264 V V2.1                       | SP000231488   | PG-VQFN-48-4  | SLIC-S (DuSLIC®): Subscriber line interface circuit, standard feature set, -40°C to 85°C, tape & reel                                       |
| ▼ PEF 4264 T V2.1                       | SP000231489   | PG-DSO-20-5   |                                                                                                                                             |
| ▼ PEF 4264-2 V V2.1                     | SP000231405   | PG-VQFN-48-4  | SLIC-S2 (DuSLIC®): Subscriber line interface circuit, enhanced feature set, -40°C to 85°C, tape & reel                                      |
| ▼ PEB 4264-2 T V2.1                     | SP000231490   | PG-DSO-20-5   |                                                                                                                                             |
| ▼ PEF 4365 T V2.1                       | SP000099015   | PG-DSO-36-15  | TSLIC-E (DuSLIC®): Twin subscriber line interface circuit, enhanced feature set, -40°C to 85°C, tape & reel                                 |
| PEB 4364 T V1.2                         | SP000007727   | P-DSO-36-15   | TSLIC-S (DuSLIC®): Twin subscriber line interface circuit, standard feature set, 0°C to 85°C, tube                                          |
| PEB 4364 T V1.2                         | SP000007728   | P-DSO-36-15   | TSLIC-S (DuSLIC®): Twin subscriber line interface circuit, standard feature set, 0°C to 85°C, tape & reel                                   |
| ▼ PEB 4262 V V1.1                       | SP000008052   | PG-VQFN-48-4  | SLIC-LCP (DuSLIC®): Subscriber line interface circuit, for US market, 0°C to 85°C, tape & reel                                              |
| ▼ PEB 3268 F V1.1                       | SP000089806   | PG-TQFP-100-9 | DuSLIC®-SP: Dual channel subscriber line interface circuit in a single package, 0°C to 85°C, tray                                           |
| EASY 3265                               | SP000008002   | —             | DuSLIC®: Tool package for DuSLIC® family. Tool package includes: 1 x SMART 3265 + 1 x SMART 4265 + 1 x SMART 2000                           |
| SMART 3265                              | SP000007987   | —             | DuSLIC®: Evaluation board for DuSLIC® family. Evaluation board includes: 1 x SMART 3265 + 1 x SMART 4265                                    |
| EASY 2466                               | SP000055577   | —             | SICOFI® + FlexiSLIC™: Tool package for SICOFI® + FlexiSLIC™ family. Tool package includes: 1 x SMART 2466 + 2 x SMART 386x + 1 x SMART 2000 |
| ▼ SMART 4262                            | SP000008102   | —             | SLIC-LCP (DuSLIC®): Evaluation board for PEB 4262                                                                                           |
| SMART 4265 P-VQFN-48                    | SP000007989   | —             | SLIC-E/SLIC-P/SLIC-S (DuSLIC®): Evaluation board for PEF 4265 or PEF 4266 or PEF 4264. PEF 4265 soldered on board                           |
| SMART 4265 P-DSO-20                     | SP000007988   | —             |                                                                                                                                             |
| SMART 4268                              | SP000008156   | —             | SLIC-DC (DuSLIC®): Evaluation board for PEF 4268                                                                                            |
| SMART 4365 P-DSO-36                     | SP000007990   | —             | TSLIC-E/TSLIC-S (DuSLIC®): Evaluation board for PEB 4365 and PEB 4364. PEF 4365 soldered on board                                           |
| ▼ EASY 3268                             | SP000204383   | —             | DuSLIC®-SP: Tool package for PEB 3268. Tool package includes: 1 x SMART 3268 + 1 x SMART 2000                                               |
| ▼ SMART 3268                            | SP000204343   | —             | DuSLIC®-SP: Evaluation board for PEB 3268. Evaluation board includes: 1 x SMART 3268                                                        |

SMD = Surface Mounted Device

| Type                                           | Ordering Code | Package      | Description                                                                                                                                                                                               |
|------------------------------------------------|---------------|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Wired Communication Voice Access</b>        |               |              |                                                                                                                                                                                                           |
| <b>ISDN S/T and U<sub>pn</sub> Transceiver</b> |               |              |                                                                                                                                                                                                           |
| PEB 3081 F V1.4                                | SP000007636   | PG-TQFP-48-1 | SBCX-X: Full duplex 2B + D S/T interface transceiver according to ITU-T I.430, tape & reel                                                                                                                |
| PEB 3081 H V1.4                                | SP000007583   | PG-MQFP-44-1 |                                                                                                                                                                                                           |
| PEB 3081 F V1.4                                | SP000007637   | PG-TQFP-48-1 | SBCX-X: Full duplex 2B + D S/T interface transceiver according to ITU-T I.430, tray                                                                                                                       |
| ▼ PEB 3081 H V1.4                              | SP000007584   | PG-MQFP-44-1 |                                                                                                                                                                                                           |
| PEB 3086 F V1.4                                | SP000007571   | PG-TQFP-64-1 | ISAC <sup>®</sup> -SX: Full duplex 2B + D S/T interface transceiver according to ITU-T I.430 with one D-channel HDLC controller and one B-channel HDLC controller with reduced functionality, tray        |
| PEB 3086 H V1.4                                | SP000007567   | PG-MQFP-44-1 |                                                                                                                                                                                                           |
| PEB 3086 F V1.4                                | SP000007572   | PG-TQFP-64-1 | ISAC <sup>®</sup> -SX: Full duplex 2B + D S/T interface transceiver according to ITU-T I.430 with one D-channel HDLC controller and one B-channel HDLC controller with reduced functionality, tape & reel |
| PEB 3086 H V1.4                                | SP000007569   | PG-MQFP-44-1 |                                                                                                                                                                                                           |
| PSB 3186 F V1.4                                | SP000007585   | PG-TQFP-64-1 | ISAC <sup>®</sup> -SX-TE: ISDN subscriber access controller for terminals, full duplex 2B + D S/T interface transceiver according to ITU-T I.430, tray                                                    |
| PSB 3186 H V1.4                                | SP000007610   | PG-MQFP-44-1 |                                                                                                                                                                                                           |
| ▼ PSB 3186 F V1.4                              | SP000007586   | PG-TQFP-64-1 | ISAC <sup>®</sup> -SX-TE: ISDN subscriber access controller for terminals, full duplex 2B + D S/T interface transceiver according to ITU-T I.430, tape & reel                                             |
| PSB 21150 F V1.4                               | SP000007575   | PG-TQFP-64-1 | IPAC-X: ISDN PC adapter circuit extended, full duplex 2B + D S/T interface transceiver according to ITU-T I.430, tray                                                                                     |
| PSB 21150 H V1.4                               | SP000007578   | PG-MQFP-64-1 |                                                                                                                                                                                                           |
| ▼ PSB 21150 F V1.4                             | SP000007577   | PG-TQFP-64-1 | IPAC-X: ISDN PC adapter circuit extended, full duplex 2B + D S/T interface transceiver according to ITU-T I.430, tape & reel                                                                              |
| PSF 21150 F V1.4                               | SP000007576   | PG-TQFP-64-1 | IPAC-X: ISDN PC adapter circuit extended, full duplex 2B + D S/T interface transceiver according to ITU-T I.430, -40°C to 85°C, tray                                                                      |
| PEB 20590 H V2.2                               | SP000007249   | PG-MQFP-80-1 | VIP: Versatile ISDN port. Eight ISDN interfaces with up to four S/T and four U <sub>pn</sub> or eight U <sub>pn</sub> interfaces, large packing unit 504 pcs, tray (only available with DELIC-LC/-PB)     |
| PEB 20590 H V2.2                               | SP000007251   | PG-MQFP-80-1 |                                                                                                                                                                                                           |
| PEB 20591 H V2.2                               | SP000007600   | PG-MQFP-80-1 | VIP-8: Versatile ISDN port. Eight ISDN interfaces with up to eight S/T or eight U <sub>pn</sub> interfaces, tray (only available with DELIC-LC/-PB)                                                       |
| ▼ PEB 20591 H V2.2                             | SP000240128   | PG-MQFP-80-1 | VIP-8: Versatile ISDN port. Eight ISDN interfaces with up to eight S/T or eight U <sub>pn</sub> interfaces, tape & reel (only available with DELIC-LC/-PB)                                                |
| SMART 3081                                     | on request    | —            | SBCX-X: Evaluation board for the PEB 3081. Additional tool: SMART 2000                                                                                                                                    |
| SMART 3086                                     | SP000007986   | —            | ISAC <sup>®</sup> -SX, ISAC <sup>®</sup> -SX TE: Evaluation board for the PEB 3086 and PSB 3186. Additional tool: SMART 2000                                                                              |
| SMART 21150                                    | SP000007975   | —            | IPAC-X: Evaluation board for the PSB 21150. Additional tool: SMART 2000                                                                                                                                   |
| SMART 2057                                     | SP000007973   | —            | VIP: Evaluation board for PEB 20570 / PEB/PEF 20571 and PEB 20590 (evaluation board includes: DELIC-PB + VIP). Additional tool: SMART 2000                                                                |
| SMART 2000 MAINBOARD                           | SP000007972   | —            | SMART 2000: Mainboard                                                                                                                                                                                     |

SMD = Surface Mounted Device

| Type | Ordering Code | Package | Description |
|------|---------------|---------|-------------|
|------|---------------|---------|-------------|

## Wired Communication Voice Access

### ISDN PBX Controller

|                      |             |               |                                                                                                                                                   |
|----------------------|-------------|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| PEB 20570 F V3.1     | SP000007243 | PG-TQFP-100-1 | DELIC-LC: Line card controller, supporting up to three VIP/VIP-8 (24 ISDN channels), large packing unit 90 pcs, tray                              |
| ▼ PEB 20570 F V1.3   | SP000007242 | PG-TQFP-100-1 | DELIC-LC: Line card controller, supporting up to three VIP/VIP-8 (24 ISDN channels), large packing unit 540 pcs, tray                             |
| PEB 20571 F V3.1     | SP000007541 | PG-TQFP-100-1 | DELIC-PB: PBX controller with integrated DSP, supporting up to three VIP/VIP-8 (24 ISDN channels), large packing unit 1400 pcs, tape & reel       |
| PEB 20571 F V3.1     | SP000007540 | PG-TQFP-100-1 | DELIC-PB: PBX controller with integrated DSP, supporting up to three VIP/VIP-8 (24 ISDN channels), large packing unit 90 pcs, tray                |
| ▼ PEB 20571 F V3.1   | SP000007539 | PG-TQFP-100-1 | DELIC-PB: PBX controller with integrated DSP, supporting up to three VIP/VIP-8 (24 ISDN channels), large packing unit 540 pcs, tray               |
| PEF 20571 F V3.1     | SP000008000 | PG-TQFP-100-1 | DELIC-PB: PBX controller with integrated DSP, supporting up to three VIP/VIP-8 (24 ISDN channels), -40°C to 85°C, tray                            |
| SMART 2057           | SP000007973 | —             | DELIC-PB/LC: Evaluation board for PEB 20570/ PEB/PEF 20571 and PEB 20590 (evaluation board includes: DELIC-PB + VIP). Additional tool: SMART 2000 |
| SMART 2000 MAINBOARD | SP000007972 | —             | SMART 2000: Mainboard                                                                                                                             |

### ISDN Echo Cancellation Circuit

|                      |             |              |                                                                                                                                                                                                   |
|----------------------|-------------|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PEF 24902 H V2.1     | SP000007489 | PG-MQFP-64-1 | AFE: 4-channel ISDN echocancellation circuit for 4B3T / 2B1Q line code, -40°C to 85°C, large packing unit 504 pcs, (only available as chipset IEC4-T/Q), tray                                     |
| PEF 24902 H V2.1     | SP000007490 | PG-MQFP-64-1 | AFE: 4-channel ISDN echocancellation circuit for 4B3T / 2B1Q line code, -40°C to 85°C, large packing unit 84 pcs, (only available as chipset IEC4-T/Q), tray                                      |
| PEF 24902 H V2.1     | SP000007491 | PG-MQFP-64-1 | AFE: 4-channel ISDN echocancellation circuit for 4B3T / 2B1Q line code, -40°C to 85°C, (only available as chipset IEC4-T/Q), tape & reel                                                          |
| ▼ PEB 24902 H V2.1   | SP000007347 | PG-MQFP-64-1 | AFE: 4-channel ISDN echocancellation circuit for 4B3T / 2B1Q line code, 0°C to 85°C, large packing unit 504 pcs, (only available as chipset IEC4-T/Q), tray                                       |
| PEB 24902 H V2.1     | SP000007348 | PG-MQFP-64-1 | AFE: 4-channel ISDN echocancellation circuit for 4B3T / 2B1Q line code, 0°C to 85°C, large packing unit 84 pcs, (only available as chipset IEC4-T/Q), tray                                        |
| PEB 24902 H V2.1     | SP000007349 | PG-MQFP-64-1 | AFE: 4-channel ISDN echocancellation circuit for 4B3T / 2B1Q line code, 0°C to 85°C, (only available as chipset IEC4-T/Q), tape & reel                                                            |
| PEF 24901 H V2.2     | SP000007535 | PG-MQFP-64-1 | DFE-T: 4-channel ISDN echocancellation circuit for 4B3T line code, -40°C to 85°C, (only available as chipset IEC4-T), tray                                                                        |
| ▼ PEF 24901 H V2.2   | SP000007536 | PG-MQFP-64-1 | DFE-T: 4-channel ISDN echocancellation circuit for 4B3T line code, -40°C to 85°C, (only available as chipset IEC4-T), tape & reel                                                                 |
| PEF 24911 H V2.2     | SP000008078 | PG-MQFP-64-1 | DFE-Q: 4-channel ISDN echocancellation circuit for 2B1Q line code, -40°C to 85°C, (only available as chipset IEC4-Q), tray                                                                        |
| ▼ PEF 24911 H V2.2   | SP000008079 | PG-MQFP-64-1 | DFE-Q: 4-channel ISDN echocancellation circuit for 2B1Q line code, -40°C to 85°C, (only available as chipset IEC4-Q), tape & reel                                                                 |
| ▼ SMART 24901        | on request  | —            | IEC4-T (PEB/PEF 24902 + 24901): Evaluation board for IEC4-T, Europe version, 4B3T line coding (evaluation board includes: Quad AFE + DFE-T + ELIC + IHPC). Additional tool: SMART 2000            |
| ▼ SMART 24911        | on request  | —            | IEC4-Q (PEB/PEF 24902 + 24911): Evaluation board for IEC4-Q chipset, USA/Japan version, 2B1Q line coding (evaluation board includes: Quad AFE + DFE-Q + ELIC + IHPC). Additional tool: SMART 2000 |
| SMART 2000 MAINBOARD | SP000007972 | —            | SMART 2000: Mainboard                                                                                                                                                                             |

SMD = Surface Mounted Device

| Type | Ordering Code | Package | Description |
|------|---------------|---------|-------------|
|------|---------------|---------|-------------|

## Wired Communication Voice Access

### ISDN/SHDSL Power Controller

|                      |             |              |                                                                                                                                                                    |
|----------------------|-------------|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ▼ PEF 2026 T-S V1.1  | SP000007176 | PG-DSO-20-6  | IHPC: Single ISDN /SHDSL high voltage power controller, -40°C to 85°C, tube                                                                                        |
| ▼ PEF 2026 T-S V1.1  | SP000007178 | PG-DSO-20-6  | IHPC: Single ISDN/SHDSL high voltage power controller, -40°C to 85°C, tape & reel                                                                                  |
| PEF 2026 T-P V1.1    | SP000007174 | P-DSO-20-6   | IHPC: Single ISDN/SHDSL high voltage power controller, -40°C to 85°C, tube                                                                                         |
| ▼ PEB 2026 T-S V1.1  | SP000007175 | PG-DSO-20-6  | IHPC: Single ISDN/SHDSL high voltage power controller, 0°C to 85°C, tube                                                                                           |
| PEB 2026 T-S V1.1    | SP000007177 | P-DSO-20-6   | IHPC: Single ISDN/SHDSL high voltage power controller, 0°C to 85°C, tape & reel                                                                                    |
| PEB 2026 T-P V1.1    | SP000007173 | P-DSO-20-6   | IHPC: Single ISDN/SHDSL high voltage power controller, 0°C to 85°C, tape & reel                                                                                    |
| ▼ PEB 2026 T-P V1.1  | SP000007172 | P-DSO-20-6   | IHPC: Single ISDN/SHDSL high voltage power controller, 0°C to 85°C, large packing unit 155 pcs, tube                                                               |
| ▼ PEB 2026 T-P V1.1  | SP000007171 | P-DSO-20-6   | IHPC: Single ISDN/SHDSL high voltage power controller, 0°C to 85°C, large packing unit 1240 pcs, tube                                                              |
| ▼ PEF 2426 H V1.1 GD | SP000007499 | PG-MQFP-44-1 | QIHPC: Quad ISDN/SHDSL high voltage power controller, tape & reel                                                                                                  |
| ▼ PEF 2426 H V1.1 D  | SP000007497 | PG-MQFP-44-1 | QIHPC: Quad ISDN/SHDSL high voltage power controller, tray                                                                                                         |
| ▼ SMART 2426 USA/JPN | on request  | —            | QIHPC: Evaluation board for PEF 2426, USA/Japan version, 2B1Q line coding (evaluation board includes: Quad AFE + DFE-T + ELIC + IHPC). Additional tool: SMART 2000 |
| ▼ SMART 2426 EURO    | on request  | —            | QIHPC: Evaluation board for PEF 2426, Europe version, 4B3T line coding (evaluation board includes: Quad AFE + DFE-Q + ELIC + IHPC). Additional tool: SMART 2000    |
| SMART 2000 MAINBOARD | SP000007972 | —            | SMART 2000: Mainboard                                                                                                                                              |

### PCM Interface Controller

|                    |             |              |                                                                                                                                                                                  |
|--------------------|-------------|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ▼ PEF 2054 N V2.1  | SP000075438 | PG-LCC-44-1  | EPIC <sup>®</sup> -S: Extended PCM interface controller (16 ISDN or 32 analog subscribers), tape & reel                                                                          |
| PEF 2054 N V2.1    | SP000007790 | P-LCC-44-1   |                                                                                                                                                                                  |
| ▼ PEF 2054 N V2.1  | SP000057916 | PG-LCC-44-1  | EPIC <sup>®</sup> -S: Extended PCM interface controller (16 ISDN or 32 analog subscribers), tube                                                                                 |
| ▼ PEF 2055 N V2.1  | SP000075706 | PG-LCC-44-1  | EPIC <sup>®</sup> -1: Extended PCM interface controller (32 ISDN or 64 analog subscribers), tube                                                                                 |
| PEF 2055 N V2.1    | SP000007791 | P-LCC-44-1   |                                                                                                                                                                                  |
| ▼ PEF 2055 N V2.1  | SP000075707 | PG-LCC-44-1  | EPIC <sup>®</sup> -1: Extended PCM interface controller (32 ISDN or 64 analog subscribers), tape & reel                                                                          |
| PEF 20550 H V2.1   | SP000007795 | PG-MQFP-80-1 | ELIC <sup>®</sup> : Extended line card interface controller (32 ISDN or 64 analog subscribers), tape & reel                                                                      |
| PEF 20550 H V2.1   | SP000007794 | P-MQFP-80-1  | ELIC <sup>®</sup> : Extended line card interface controller (32 ISDN or 64 analog subscribers), large packing unit 84 pcs, tray                                                  |
| ▼ PEF 20550 H V2.1 | SP000007793 | PG-MQFP-80-1 | ELIC <sup>®</sup> : Extended line card interface controller (32 ISDN or 64 analog subscribers), large packing unit 504 pcs, tray                                                 |
| ▼ SMART 24901      | on request  | —            | ELIC <sup>®</sup> : Evaluation board for PEF 20550, Europe version, 4B3T line coding (evaluation board includes: Quad AFE + DFE-T + ELIC + IHPC). Additional tool: SMART 2000    |
| ▼ SMART 24911      | on request  | —            | ELIC <sup>®</sup> : Evaluation board for PEF 20550, USA/Japan version, 2B1Q line coding (evaluation board includes: Quad AFE + DFE-Q + ELIC + IHPC). Additional tool: SMART 2000 |

SMD = Surface Mounted Device

| Type | Ordering Code | Package | Description |
|------|---------------|---------|-------------|
|------|---------------|---------|-------------|

**Wired Communication Voice Access****ISDN Network Termination Controller (NT1, iNT)**

|                    |             |              |                                                                                                              |
|--------------------|-------------|--------------|--------------------------------------------------------------------------------------------------------------|
| PEF 80902 H V1.1   | SP000007563 | PG-MQFP-44-2 | T-SMINT <sup>®</sup> -O: 4B3T second generation modular ISDN NT (ordinary), tape & reel                      |
| PEF 80902 H V1.1   | SP000007562 | PG-MQFP-44-2 | T-SMINT <sup>®</sup> -O: 4B3T second generation modular ISDN NT (ordinary), tray                             |
| PEF 82902 F V1.1   | SP000007565 | PG-TQFP-64-1 | T-SMINT <sup>®</sup> -I: 4B3T second generation modular ISDN NT (intelligent), tray                          |
| ▼ PEF 82902 F V1.1 | SP000007566 | PG-TQFP-64-1 | T-SMINT <sup>®</sup> -I: 4B3T second generation modular ISDN NT (intelligent), tape & reel                   |
| ▼ PEF 81902 F V1.1 | SP000007564 | PG-TQFP-64-1 | T-SMINT <sup>®</sup> -IX: 4B3T second generation modular ISDN NT (intelligent extended), tray                |
| PEF 80912 H V1.4   | SP000007554 | PG-MQFP-44-2 | Q-SMINT <sup>®</sup> -O: 2B1Q second generation modular ISDN NT (ordinary), large packing unit 96 pcs, tray  |
| ▼ PEF 80912 H V1.4 | SP000007553 | PG-MQFP-44-2 | Q-SMINT <sup>®</sup> -O: 2B1Q second generation modular ISDN NT (ordinary), large packing unit 576 pcs, tray |
| ▼ PEF 80912 H V1.4 | SP000007555 | PG-MQFP-44-2 | Q-SMINT <sup>®</sup> -O: 2B1Q second generation modular ISDN NT (ordinary), tape & reel                      |
| PEF 82912 F V1.4   | SP000007558 | PG-TQFP-64-1 | Q-SMINT <sup>®</sup> -I: 2B1Q second generation modular ISDN NT (intelligent), tray                          |
| ▼ PEF 82912 F V1.4 | SP000007559 | PG-TQFP-64-1 | Q-SMINT <sup>®</sup> -I: 2B1Q second generation modular ISDN NT (intelligent), tape & reel                   |
| SIP 80912          | SP000007970 | —            | Q-SMINT <sup>®</sup> -O: Evaluation board for PEF 80912                                                      |
| ▼ SIP 82912        | on request  | —            | Q-SMINT <sup>®</sup> -I: Evaluation board for PEF 82912                                                      |

**16-Bit Microcontroller for ISDN**

|                        |             |               |                                                                                                       |
|------------------------|-------------|---------------|-------------------------------------------------------------------------------------------------------|
| SAF C161U-LF V1.3      | SP000007502 | PG-TQFP-100-1 | C161U: 16-bit microcontroller with USB, tray                                                          |
| SAF C165H-LF V1.3      | SP000007668 | P-TQFP-144-2  | C165U: 16-bit microcontroller with HDLC and IOM <sup>®</sup> -2, large packing unit 60 pcs, tray      |
| ▼ SAF C165H-LF V1.3    | SP000007667 | PG-TQFP-144-2 | C165U: 16-bit microcontroller with HDLC and IOM <sup>®</sup> -2, large packing unit 360 pcs, tray     |
| ▼ SAF C165H-LF V1.3    | SP000007669 | PG-TQFP-144-2 | C165H: 16-bit microcontroller with HDLC and IOM <sup>®</sup> -2, tape & reel                          |
| SAF C165UTAH-LF V1.3   | SP000007475 | PG-TQFP-144-2 | UTAH: 16-bit microcontroller with USB, HDLC and IOM <sup>®</sup> -2, large packing unit 60 pcs, tray  |
| ▼ SAF C165UTAH-LF V1.3 | SP000007474 | PG-TQFP-144-2 | UTAH: 16-bit microcontroller with USB, HDLC and IOM <sup>®</sup> -2, large packing unit 360 pcs, tray |
| SAF C165UTAH-LF V1.3   | SP000007476 | PG-TQFP-144-2 | UTAH: 16-bit microcontroller with USB, HDLC and IOM <sup>®</sup> -2, tape & reel                      |
| EASY C161U             | SP000007940 | —             | C161U: Evaluation board for SAF-C161U                                                                 |
| EASY UTAH              | SP000007941 | —             | UTAH: Evaluation board for SAF-C165UTAH/SAF-C165H                                                     |

**VoIP Terminals**

|                      |             |               |                                                                                                           |
|----------------------|-------------|---------------|-----------------------------------------------------------------------------------------------------------|
| ▼ PSB 21553 E V1.4-G | SP000017644 | PG-LBGA-324-3 | INCA <sup>®</sup> -IPs: Single-chip IP-phone solution with integrated 3-port ethernet switch, tape & reel |
| ▼ PSB 21553 E V1.4-G | SP000056178 | PG-LBGA-324-3 | INCA <sup>®</sup> -IPs: Single-chip IP-phone solution with integrated 3-port ethernet switch, tray        |
| ▼ PSB 21521 E V1.4-G | SP000007840 | PG-LBGA-324-3 | INCA <sup>®</sup> -IPc: Single-chip IP-phone solution with single 10/100BaseT ethernet port, tape & reel  |
| ▼ PSB 21521 E V1.4-G | SP000226522 | PG-LBGA-324-3 | INCA <sup>®</sup> -IPc: Single-chip IP-phone solution with single 10/100BaseT ethernet port, tray         |
| ▼ EASY 21553         | SP000007917 | —             | INCA <sup>®</sup> -IP: Evaluation board for PSB 21553                                                     |

SMD = Surface Mounted Device

| Type                                    | Ordering Code | Package       | Description                                                                                                                  |
|-----------------------------------------|---------------|---------------|------------------------------------------------------------------------------------------------------------------------------|
| <b>Wired Communication Voice Access</b> |               |               |                                                                                                                              |
| <b>ISDN Terminals</b>                   |               |               |                                                                                                                              |
| PSB 21382 H V1.3                        | SP000007373   | PG-MQFP-64-1  | SCOUT™-S: Siemens codec with S/T transceiver, tray                                                                           |
| PSB 21383 H V1.3                        | SP000007532   | PG-MQFP-44-1  | SCOUT™-SX: Siemens codec with S/T transceiver featuring speakerphone functionality, tape & reel                              |
| ▼ PSB 21383 H V1.3                      | SP000007531   | PG-MQFP-44-1  | SCOUT™-SX: Siemens codec with S/T transceiver featuring speakerphone functionality, large packing unit 96 pcs, tray          |
| ▼ PSB 21383 H V1.3                      | SP000007530   | PG-MQFP-44-1  | SCOUT™-SX: Siemens codec with S/T transceiver featuring speakerphone functionality, large packing unit 576 pcs, tray         |
| PSB 21384 H V1.3                        | SP000007374   | PG-MQFP-64-1  | SCOUT™-SX: Siemens codec with S/T transceiver featuring speakerphone functionality, tray                                     |
| ▼ PSB 21384 H V1.3                      | SP000007375   | PG-MQFP-64-1  | SCOUT™-SX: Siemens codec with S/T transceiver featuring speakerphone functionality, tape & reel                              |
| PSB 21373 H V1.1                        | SP000007602   | PG-MQFP-44-1  | SCOUT™-DX: Siemens codec with 2-wire data transceiver featuring speakerphone function, tape & reel                           |
| PSB 21391 H V1.3                        | SP000007376   | PG-MQFP-44-1  | SCOUT™-P: Siemens codec with Upn transceiver, tray                                                                           |
| ▼ PSB 21391 H V1.3                      | SP000007377   | PG-MQFP-44-1  | SCOUT™-P: Siemens codec with Upn transceiver, tape & reel                                                                    |
| PSB 21393 H V1.3                        | SP000007533   | PG-MQFP-44-1  | SCOUT™-PX: Siemens codec with Upn transceiver featuring speakerphone functionality, tray                                     |
| PSB 21393 H V1.3                        | SP000007534   | PG-MQFP-44-1  | SCOUT™-PX: Siemens codec with Upn transceiver featuring speakerphone functionality, tape & reel                              |
| ▼ PSB 21493 H V1.7                      | SP000007996   | P-MQFP-144-1  | INCA®-P: Infineon codec with Upn transceiver and embedded microcontroller featuring acoustic echo cancellation, tape & reel  |
| ▼ PSB 21493 H V1.7                      | SP000103945   | P-MQFP-144-1  | INCA®-P: Infineon codec with Upn transceiver and embedded microcontroller featuring acoustic echo cancellation, tray         |
| PSB 21483 F V1.7                        | SP000007699   | PG-TQFP-144-1 | INCA®-S: Infineon codec with S/T transceiver and embedded microcontroller featuring acoustic echo cancellation, tray         |
| ▼ PSB 21473 F V1.3                      | SP000007701   | PG-TQFP-144-1 | INCA®-D: Infineon codec with DASL transceiver and embedded microcontroller featuring acoustic echo cancellation, tape & reel |
| ▼ PSB 21473 F V1.3                      | SP000007700   | PG-TQFP-144-1 | INCA®-D: Infineon codec with DASL transceiver and embedded microcontroller featuring acoustic echo cancellation, tray        |
| SMART 21384                             | SP000007976   | —             | SCOUT™-S/-SX: Evaluation board for PSB 21382/84. Additional tool: SMART 2000                                                 |
| ▼ SMART 21383                           | on request    | —             | SCOUT™-SX: Evaluation board for PSB 21383. Additional tool: SMART 2000                                                       |
| SMART 21393 EURO                        | SP000007977   | —             | SCOUT™-P/-PX: Evaluation board for PSB 21391/93 Europe version. Additional tool: SMART 2000                                  |
| ▼ SMART 21393 USA                       | on request    | —             | SCOUT™-P/-PX: Evaluation board for PSB 21391/93 USA version. Additional tool: SMART 2000                                     |
| SIPB 21493                              | SP000007967   | —             | INCA-P®: Evaluation board for 21493                                                                                          |
| ▼ SIPB 21483                            | on request    | —             | INCA®-S: Evaluation board for PSB 21483                                                                                      |
| ▼ SIPB 21486                            | on request    | —             | INCA®-P; INCA®-S: Acoustic box (20 Ohm) for PSB 21493 and PSB 21483                                                          |
| SMART 2000 MAINBOARD                    | SP000007972   | —             | SMART 2000: Mainboard                                                                                                        |

SMD = Surface Mounted Device

| Type | Ordering Code | Package | Description |
|------|---------------|---------|-------------|
|------|---------------|---------|-------------|

## Wired Communication Broadband CPE

### Network Processor

|                    |             |               |                                                                                                   |
|--------------------|-------------|---------------|---------------------------------------------------------------------------------------------------|
| ADM 5120 X AB T2-G | SP000078983 | PG-BGA-324-1  | Network Processor: System-on-chip home gateway controller, USB 1.1, PCI, 5TP+GMII, tray           |
| ADM 5120 PX AB T2  | SP000081012 | PG-FQFP-208-9 | Network Processor: System-on-chip home gateway controller, USB 1.1, 5TP+MII, tray                 |
| EASY 5120-RT       | SP000017922 | —             | Network Processor: Evaluation board for ADM5120 (X) (Wireless VoIP router reference package)      |
| EASY 5120-WVOIP RT | SP000017943 | —             | Network Processor: Evaluation board for ADM5120 (X) (2-channel ATA VoIP router reference package) |

### Wireless System On-Chip (SoC)

|                     |             |              |                                                                                                          |
|---------------------|-------------|--------------|----------------------------------------------------------------------------------------------------------|
| ▼ ADM 8668 FX A12-G | SP000208946 | PG-BGA-352-1 | Wildpass: Wireless network bridging system-on-chip, WLAN (WMAC+BBP), USB 2.0, 1TP+1MII                   |
| ▼ ADM 8668 TX A12   | SP000208947 | PG-BGA-289-1 | Wildpass: Wireless network bridging system-on-chip, WLAN (WMAC+BBP), USB 2.0, 1TP+1MII, PCI bridge, tray |
| ▼ EASY 8668 F       | SP000068129 | —            | Wildpass: Evaluation board for ADM 8668 F(X)                                                             |

### Network Interface Card (NIC)

|                    |             |               |                                                            |
|--------------------|-------------|---------------|------------------------------------------------------------|
| AN 983 BX BG TV1   | SP000075554 | PG-MQFP-128-2 | NIC: PCI to fast ethernet NIC controller, tray             |
| ▼ AN 983 BX BG TV3 | SP000103413 | PG-MQFP-128-2 |                                                            |
| AN 983 BLX BG TV1  | SP000076446 | PG-LQFP-128-1 |                                                            |
| ▼ AN 983X AH T 21  | SP000078897 | PG-MQFP-128-2 |                                                            |
| ▼ AN 983X AH T 22  | SP000078898 | PG-MQFP-128-2 |                                                            |
| ▼ AN 985 BX BG TV1 | SP000076447 | PG-LQFP-128-1 | NIC: Cardbus to fast ethernet NIC controller, tray         |
| ADM 8511 X CC T1   | SP000076521 | PG-LQFP-100-1 | NIC: USB 1.1 to fast ethernet NIC controller, tray         |
| ADM 8513 X AD T1   | SP000077769 | PG-LQFP-48-1  | NIC: USB 1.1 to fast ethernet NIC controller, tray         |
| ▼ ADM 8515X AC T1  | SP000064377 | PG-LQFP-100-1 | NIC: USB 2.0 to ethernet NIC controller, tray              |
| ▼ EASY 7001 NIC    | SP000018110 | —             | NIC: Evaluation board for AN 983 B(X) (including ADM 7001) |
| ▼ EASY 8511        | SP000067472 | —             | NIC: Evaluation board for ADM 8511 (X)                     |
| EASY 8515          | SP000017920 | —             | NIC: Evaluation board for ADM 8515 (X)                     |

### Switch/Phy

|                      |             |               |                                                                                                                                |
|----------------------|-------------|---------------|--------------------------------------------------------------------------------------------------------------------------------|
| ADM 6992 X AD T1     | SP000076445 | PG-MQFP-128-2 | Ninja: Fiber-to-fast ethernet converter, tray                                                                                  |
| ▼ ADM 6992 SX AB T1  | SP000223283 | PG-TQFP-64-4  |                                                                                                                                |
| ▼ ADM 6992 CX AB T1  | SP000076431 | PG-TQFP-64-4  | Ninja: Two port fiber-to-fast ethernet converter bridge, tray                                                                  |
| ▼ ADM 6992 FX AB T1  | SP000077768 | PG-MQFP-128-2 | Ninja: Fiber-to-fast ethernet converter with OAM engine for TS-1000 protocol conversion, tray                                  |
| ▼ ADM 6992 KX AB T1  | SP000076432 | PG-TQFP-64-4  |                                                                                                                                |
| ▼ EASY 6992 C        | SP000017946 | —             | Ninja: Evaluation board for ADM 6992 C(X)                                                                                      |
| EASY 6992 F          | SP000017947 | —             | Ninja: Evaluation board for ADM 6992 F(X)                                                                                      |
| EASY 6992 K          | SP000017944 | —             | Ninja: Evaluation board for ADM 6992 K(X)                                                                                      |
| ▼ ADM 6993 X AD T1   | SP000076438 | PG-MQFP-128-2 | Ninja: Fiber-to-fast ethernet converter with integrated three port L2 switch, tray                                             |
| ▼ ADM 6993 FX AD T1  | SP000016437 | PG-MQFP-128-2 | Ninja: Fiber-to-fast-ethernet converter with integrated three port L2 switch, OAM engine for TS-1000 protocol conversion, tray |
| ▼ EASY 6993 F        | SP000017919 | —             | Ninja: Evaluation board for ADM 6993 F(X)                                                                                      |
| ▼ ADM 6995 LCX AD T1 | SP000219864 | PG-MQFP-128-2 | Samurai: Five port L2 ethernet switch controller, 5TP, MDC/MDIO, tray                                                          |
| ▼ ADM 6996 FCX AD T1 | SP000219863 | PG-MQFP-128-2 | Samurai: Six port L2 ethernet switch controller, 4TP+2MII, MDC/MDIO, tray                                                      |
| ▼ ADM 6996 FCX AD R1 | SP000229744 | PG-MQFP-128-2 | Samurai: Six port L2 ethernet switch controller, 4TP+2MII, MDC/MDIO, tape & reel                                               |
| ▼ ADM 6996 IX AD T1  | SP000219861 | PG-MQFP-128-2 | Samurai: Six port L2 ethernet switch controller, 5TP+1MII, extra function on IGMP, QOS, tray                                   |

SMD = Surface Mounted Device

| Type                                     | Ordering Code | Package       | Description                                                                                                  |
|------------------------------------------|---------------|---------------|--------------------------------------------------------------------------------------------------------------|
| <b>Wired Communication Broadband CPE</b> |               |               |                                                                                                              |
| <b>Switch/Phy</b><br>(cont'd)            |               |               |                                                                                                              |
| ▼ ADM 6996 LCX AD R1                     | SP000228446   | PG-MQFP-128-2 | Samurai: Six port L2 ethernet switch controller, 5TP+1MII, tape & reel                                       |
| ▼ ADM 6996 LCX AD T1                     | SP000219862   | PG-MQFP-128-2 | Samurai: Six port L2 ethernet switch controller, 5TP+1MII, MDC/MDIO, tray                                    |
| ▼ ADM 6996 MX AD T1                      | SP000210310   | PG-MQFP-128-2 | Samurai: Six port L2 ethernet switch controller, 4TP+2MII, MDC/MDIO, extra function on IGMP, QOS, tray       |
| ▼ ADM 6996 HX AD T1                      | SP000220561   | PG-MQFP-128-2 | Samurai: Six port L2 ethernet switch controller, 4TP+1MII+1HDLC, MDC/MDIO, extra function on IGMP, QOS, tray |
| EASY 6996 FC                             | SP000062347   | —             | Samurai: Evaluation board for ADM 6996 FC(X)                                                                 |
| ▼ EASY 6996 I                            | SP000062345   | —             | Samurai: Evaluation board for ADM 6996 I(X)                                                                  |
| EASY 6996 I CPU                          | SP000084733   | —             | Samurai: Evaluation board for ADM 6996 I(X) with CPU                                                         |
| EASY 6996 LC                             | SP000062346   | —             | Samurai: Evaluation board for ADM 6996 LC(X)                                                                 |
| EASY 6996 M                              | SP000062344   | —             | Samurai: Evaluation board for ADM 6996 M(X)                                                                  |
| ▼ EASY 6996 M CPU                        | SP000084732   | —             | Samurai: Evaluation board for ADM 6996 M(X) with CPU                                                         |
| ADM 6999 X A2 T1                         | SP000076443   | PG-MQFP-128-2 | Switch: Nine-port L2 ethernet switch controller, 8TP+1MII, tray                                              |
| ▼ ADM 6999 GX A2 T1                      | SP000076440   | PG-MQFP-128-2 | Switch: Nine-port L2 switch controller, 8TP+1GMII, tray                                                      |
| ▼ ADM 6999 UX A2 T1                      | SP000076439   | PG-MQFP-128-2 | Switch: Nine-port L2 ethernet switch controller, 8TP+1.6GMII, tray                                           |
| EASY 6999                                | SP000018106   | —             | Switch: Evaluation board for ADM 6999 (X)                                                                    |
| EASY 6999 U                              | SP000018108   | —             | Switch: Evaluation board for ADM 6999 U(X)                                                                   |
| ▼ EASY 6999 G                            | SP000018107   | —             | Switch: Evaluation board for ADM 6999 G(X)                                                                   |
| ADM 7001 X AC T1                         | SP000076255   | PG-LQFP-48-1  | Phy: One-port 10/100Mbit/s phy, tray                                                                         |
| ▼ ADM 7001 X AC R1                       | SP000083260   | PG-LQFP-48-1  | Phy: One-port 10/100Mbit/s phy, tape & reel                                                                  |
| EASY 7001 MII                            | SP000018109   | —             | Phy: Evaluation board for ADM 7001 (X)                                                                       |

SMD = Surface Mounted Device

| Type | Ordering Code | Package | Description |
|------|---------------|---------|-------------|
|------|---------------|---------|-------------|

## Wireless Communication

### WLAN

|                    |             |               |                                                                                                                      |
|--------------------|-------------|---------------|----------------------------------------------------------------------------------------------------------------------|
| ▼ ADM 8262 X AC T1 | SP000208914 | PG-LQFP-128-1 | Wildcard G: Wireless Lan 802.11a/b/g MAC + BBP single chip controller with PCI, mini-PCI and Cardbus interface, tray |
| ▼ ADM 8266 A21     | SP000098969 | PG-LQFP-128-1 | Wildcard USB: 802.11a/b/g MAC + BBP single chip WiFi Controller with USB interface, tray                             |
| ▼ ADM 8266M A21    | SP000098970 | PG-LQFP-128-1 |                                                                                                                      |
| ▼ PEF 8820 V       | SP000054913 | PG-VQFN-48-1  | Lucky Warp: 802.11 a/b/g RF transceiver, tape & reel                                                                 |
| EASY 8262 MINI PCI | SP000018113 | —             | Wildcard G: Evaluation board for ADM 8262                                                                            |
| EASY 8262 CARDBUS  | SP000018111 | —             |                                                                                                                      |
| ▼ EASY 8266 USB    | SP000054643 | —             | Wildcard USB: Evaluation board for ADM 8266 (Dongle)                                                                 |
| ▼ EASY 8266 COMBO  | on request  | —             | Wildcard G: Evaluation board for ADM 8266 (memory stick combo)                                                       |

### Bluetooth®

|                                          |             |              |                                                                                                                |
|------------------------------------------|-------------|--------------|----------------------------------------------------------------------------------------------------------------|
| ◆▼ PMB 8761 G V3.29                      | SP000095537 | PG-VQFN-48-1 | BlueMoon Single Cellular: Bluetooth® 1.2 HCI single chip, tape & reel                                          |
| ◆▼ PMB 8753 J V2.07                      | SP000226865 | PG-WFSGA-65  | BlueMoon Single Cellular: CF-Card for PMB 8761 (BlueMoon Single Cellular), tape & reel                         |
| ◆▼ PMB 8753 A V2.07                      | SP000226864 | PG-WFSGA-65  |                                                                                                                |
| ◆▼ PBA 31307/1R2A                        | SP000009862 | L-MLGA-72    | Single Stone Module: Bluetooth® 1.2 HCI based module, tape & reel                                              |
| ◆▼ PBA 31308                             | SP000209746 | P-MODUL-1    | Uni Stone Module: Bluetooth® 2.0 HCI based module with Enhanced Data Rate (EDR), tape & reel                   |
| ◆▼ BlueMoon Single Cellular Kit          | on request  | —            | BlueMoon Single Cellular: Evaluation board for PMB 8761<br>Evaluation kit includes: 2 x mainboard and 2 x card |
| ◆▼ BlueMoon Single Cellular CF-Card      | on request  | —            | BlueMoon Single Cellular: CF-Card for PMB 8761                                                                 |
| ◆▼ BlueMoon Uni Cellular Kit             | on request  | —            | BlueMoon Uni Cellular: Evaluation board for PMB 8761<br>Evaluation kit includes: 2 x mainboard and 2 x card    |
| ◆▼ BlueMoon Uni Cellular CF-Card         | on request  | —            | BlueMoon Uni Cellular: CF-Card for PMB 8761                                                                    |
| ◆▼ BlueMoon Singlestone Cellular Kit     | on request  | —            | Singlestone Module: Evaluation board for PBA 31307<br>Evaluation kit includes: 2 x mainboard and 2 x card      |
| ◆▼ BlueMoon Singlestone Cellular CF-Card | on request  | —            | Singlestone Module: CF-Card for PBA 31307                                                                      |
| ◆▼ BlueMoon Unistone Cellular Kit        | on request  | —            | Unistone Module: Evaluation board for PBA 31308<br>Evaluation kit includes: 2 x mainboard and 2 x card         |
| ◆▼ BlueMoon Unistone Cellular CF-Card    | on request  | —            | Unistone Module: CF-Card for PBA 31308                                                                         |

### Digital Cordless Telephony (DECT)

|                         |             |               |                                                                                                |
|-------------------------|-------------|---------------|------------------------------------------------------------------------------------------------|
| PMB 6818 R V1.1         | SP000008828 | PG-TSSOP-10-1 | Dect: Power amplifier, tape & reel                                                             |
| PMB 6819 R V1.1         | SP000008753 | PG-TSSOP-10-1 | Dect: 2 V power amplifier, tape & reel                                                         |
| ▼ PMB 6610 R V2.1W      | SP000055958 | PG-TSSOP-38-1 | Dect: Low-IF transceiver for DECT, tape & reel                                                 |
| PMB 6610 R V2.1A        | SP000106609 | P-TSSOP-38-1  |                                                                                                |
| ▼ PMB 7610 R V1.1       | SP000008752 | PG-TSSOP-38-1 | Dect: Transceiver with improved density, tape & reel                                           |
| ▼ PMB 6723 F V1.4 FL    | SP000008714 | PG-TQFP-100-1 | Dect: Handset controller with handsfree capability, tape & reel                                |
| ▼ PMB 6723 F V1.423     | SP000217504 | PG-TQFP-100-1 |                                                                                                |
| ▼ PMB 7722 F V1.4 FL    | SP000008975 | PG-TQFP-100-1 | Dect: Handset controller with walkie-talkie function, large packing unit 1400 pcs, tape & reel |
| ▼ PMB 7722 F V1.4 FL    | SP000008974 | PG-TQFP-100-1 | Dect: Handset controller with walkie-talkie function, large packing unit 1000 pcs, tape & reel |
| ▼ PMB 5737 F V3.552 PCC | SP000008709 | P-TQFP-144-1  | Dect: Basestation controller with SMS functionality, tape & reel                               |
| ▼ PMB 5737 F V3.5       | SP000008707 | P-TQFP-144-1  |                                                                                                |
| ▼ PMB 6725 XF V1.5 FL   | SP000008732 | PG-TQFP-100-1 | Dect: Basestation controller with external ROM/RAM interface, tape & reel                      |
| ▼ PMB 6725 XF V1.565    | SP000008725 | PG-TQFP-100-1 |                                                                                                |
| PMB 6725 XF V1.592      | SP000008731 | P-TQFP-100-1  | Dect: Basestation controller with SMS functionality, tape & reel                               |
| ▼ PMB 7725 XF V1.3 FL   | SP000008907 | PG-TQFP-100-1 |                                                                                                |
| ▼ PMB 7725 H V1.3115    | SP000008906 | P-MQFP-64-1   |                                                                                                |

SMD = Surface Mounted Device

| Type | Ordering Code | Package | Description |
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## Wireless Communication

### 2.4-GHz WDCT

|                       |             |               |                                                                                  |
|-----------------------|-------------|---------------|----------------------------------------------------------------------------------|
| ▼ PMB 4823 R V1.1     | SP000008698 | PG-TSSOP-10-1 | Dect: WDCT power amplifier, tape & reel                                          |
| ▼ PMB 6823 R V1.1     | SP000008815 | PG-TSSOP-10-1 | Dect: WDCT 2 V power amplifier, tape & reel                                      |
| PMB 6618 R V2.1       | SP000009044 | PG-TSSOP-38-1 | Dect: Low-IF transceiver for 2.4-GHz WDCT, tape & reel                           |
| ▼ PMB 6724 F V1.4 FL  | SP000008716 | P-TQFP-100-1  | Dect: WDCT Handset Controller, tape & reel                                       |
| ▼ PMB 7724 F V1.406   | SP000079572 | PG-TQFP-100-1 | Dect: WDCT Handset Controller with walkie-talkie function, tape & reel           |
| ▼ PMB 7724 H V1.406   | SP000016802 | PG-MQFP-64-1  |                                                                                  |
| ▼ PMB 5736 U          | SP000065010 | P-TQFP-144-1  | Dect: WDCT Basestation Controller with integrated answering machine, tape & reel |
| ▼ PMB 6726 XF V1.5 FL | SP000008875 | P-TQFP-100-1  | Dect: WDCT Basestation Controller with external ROM-/RAM interface, tape & reel  |
| ▼ PMB 6726 XF V1.543  | SP000008877 | P-TQFP-100-1  |                                                                                  |
| ▼ PMB 7726 H V1.304   | SP000008953 | P-MQFP-64-1   | Dect: WDCT Basestation Controller with increased memory size, tape & reel        |

### RF Power GOLDMOS®

|                     |             |               |                                                                           |
|---------------------|-------------|---------------|---------------------------------------------------------------------------|
| ◆▼ PTF 040551E      | SP000082501 | H-30265-2-1   | High power RF LDMOSFET, 55 W, 450-MHz to 500-MHz bandwidth, tray          |
| ◆▼ PTF 041501E V1.0 | SP000064068 | H-30260-2-1   | High power RF LDMOSFET, 150 W, 450-MHz to 500-MHz bandwidth, tray         |
| ◆▼ PTF 080101M      | SP000082763 | PG-TSSOP-10-1 | High power RF LDMOSFET, 10 W, 860-MHz to 960-MHz bandwidth, tape & reel   |
| ◆ PTF 080101S V1.0  | SP000018181 | H-32259-2-1   | High power RF LDMOSFET, 10 W, 860-MHz to 960-MHz bandwidth, tray          |
| ◆ PTF 080901E V1.0  | SP000009921 | H-30248-2-1   | High power RF LDMOSFET, 90 W, 860-MHz to 960-MHz bandwidth, tray          |
| ◆ PTF 080901F V1.0  | SP000009922 | H-31248-2-1   |                                                                           |
| ◆ PTF 081301E V1.0  | SP000017347 | H-30248-2-1   | High power RF LDMOSFET, 130 W, 860-MHz to 960-MHz bandwidth, tray         |
| ◆ PTF 082001E V1.0  | SP000017756 | H-30260-2-1   | High power RF LDMOSFET, 200 W, 860-MHz to 960-MHz bandwidth, tray         |
| ◆▼ PTF 140451E V1.0 | SP000102183 | H-30265-2-1   | High power RF LDMOSFET, 45 W, 1450-MHz to 1500-MHz bandwidth, tray        |
| ◆▼ PTF 141501E V1.0 | SP000095458 | H-30260-2-1   | High power RF LDMOSFET, 150 W, 1450-MHz to 1500-MHz bandwidth, tray       |
| ◆▼ PTF 180101M V1.0 | SP000076951 | PG-TSSOP-10-1 | High power RF LDMOSFET, 10 W, 1800-MHz to 1900-MHz bandwidth, tape & reel |
| ◆ PTF 180101S V1.0  | SP000009989 | H-32259-2-1   |                                                                           |
| ◆▼ PTF 180301E V1.0 | SP000017754 | H-30265-2-1   | High power RF LDMOSFET, 30 W, 1800-MHz to 2000-MHz bandwidth, tray        |
| ◆ PTF 180901E V1.0  | SP000009918 | H-30248-2-1   | High power RF LDMOSFET, 90 W, 1800-MHz to 2000-MHz bandwidth, tray        |
| ◆ PTF 180901F V1.0  | SP000009917 | H-31248-2-1   |                                                                           |
| ◆ PTF 181301E V1.0  | SP000017571 | H-30260-2-1   | High power RF LDMOSFET, 130 W, 1800-MHz to 2000-MHz bandwidth, tray       |
| ◆ PTF 191601E V1.0  | SP000018182 | H-30260-2-1   | High power RF LDMOSFET, 160 W, 1800-MHz to 2000-MHz bandwidth, tray       |
| ◆▼ PTF 210101M V1.0 | SP000076952 | PG-TSSOP-10-1 | High power RF LDMOSFET, 20 W, 2100-MHz to 2170-MHz bandwidth, tape & reel |
| ◆ PTF 210301E V1.0  | SP000009913 | H-30265-2-1   | High power RF LDMOSFET, 30 W, 2110-MHz to 2170-MHz bandwidth, tray        |

SMD = Surface Mounted Device

| Type | Ordering Code | Package | Description |
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## Wireless Communication

### RF Power GOLDMOS®

(cont'd)

|                      |             |             |                                                                     |
|----------------------|-------------|-------------|---------------------------------------------------------------------|
| ◆ PTF 211301E V1.0   | SP000017750 | H-30260-2-1 | High power RF LDMOSFET, 130 W, 2110-MHz to 2170-MHz bandwidth, tray |
| ◆▼ PTF 240101S V1.0  | SP000082764 | H-32259-2-1 | High power RF LDMOSFET, 10 W, 2400-MHz to 2500-MHz bandwidth, tray  |
| ◆▼ PTFA 043002E V1.0 | SP000082722 | H-30275-4-1 | High power RF LDMOSFET, 300 W, 470-MHz to 860-MHz bandwidth, tray   |
| ◆▼ PTFA 191001E V1.0 | SP000056796 | H-30248-2-1 | High power RF LDMOSFET, 100 W, 1930-MHz to 1990-MHz bandwidth, tray |
| ◆▼ PTFA 210451E V1.0 | SP000082505 | H-30265-2-1 | High power RF LDMOSFET, 45 W, 2110-MHz to 2170-MHz bandwidth, tray  |
| ◆▼ PTFA 210601E V1.0 | SP000102489 | H-30265-2-1 | High power RF LDMOSFET, 60 W, 2110-MHz to 2170-MHz bandwidth, tray  |
| ◆▼ PTFA 211001E V1.0 | SP000064069 | H-30248-2-1 | High power RF LDMOSFET, 100 W, 2110-MHz to 2170-MHz bandwidth, tray |
| ◆▼ PTFA 211801E V1.0 | SP000065496 | H-30260-2-1 | High power RF LDMOSFET, 180 W, 2110-MHz to 2170-MHz bandwidth, tray |
| ◆▼ PTFA 211801F V1.0 | SP000075700 | H-31260-2-1 | High power RF LDMOSFET, 180 W, 2110-MHz to 2170-MHz bandwidth, tray |
| ◆▼ PTFA 212002E V1.0 | SP000074111 | H-30275-2-1 | High power RF LDMOSFET, 220 W, 2110-MHz to 2170-MHz bandwidth, tray |
| ◆▼ PTFA 240451E V1.0 | SP000063673 | H-30265-2-1 | High power RF LDMOSFET, 45 W, 2400-MHz to 2500-MHz bandwidth, tray  |
| ◆▼ PTFA 241301E V1.0 | SP000082766 | H-30260-2-1 | High power RF LDMOSFET, 130 W, 2400-MHz to 2500-MHz bandwidth, tray |
| ◆▼ PTFA 260451E V1.0 | SP000063672 | H-30265-2-1 | High power RF LDMOSFET, 45 W, 2620-MHz to 2680-MHz bandwidth, tray  |
| ◆▼ PTFA 261301E      | SP000086852 | H-30260-2-1 | High power RF LDMOSFET, 130 W, 2620-MHz to 2680-MHz bandwidth, tray |

### Tuner ICs

|                        |             |               |                                                                                                                                                                                                                    |
|------------------------|-------------|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| TUA 6020               | SP000012798 | PG-TSSOP-28-1 | Tuner: 2-band TV tuner mixer-oscillator-PLL with balanced IF-amplifier, for analog and stationary TV reception, tape & reel                                                                                        |
| TUA 6024-2             | SP000012767 | PG-TSSOP-28-1 | Tuner: 2-band TV tuner mixer-oscillator-PLL with unbalanced IF-amplifier, for analog TV reception, tape & reel                                                                                                     |
| KTS 6027-2             | SP000013185 | PG-TSSOP-28-1 | Tuner: 2-band TV tuner mixer-oscillator-PLL with unbalanced IF-amplifier, for analog TV reception, tape & reel                                                                                                     |
| KTS 6029-2             | SP000013186 | PG-TSSOP-28-1 | Tuner: WDCT Basestation Controller, for analog TV reception, tape & reel                                                                                                                                           |
| ▼ TUA 1030 DRYPACK     | SP000013616 | PG-TSSOP-24-1 | Tuner: WDCT Basestation Controller, for analog TV reception, tape & reel                                                                                                                                           |
| TUA 6030               | SP000012954 | PG-TSSOP-38-1 | Tuner: 3-band RF Tuner for PAL/NTSC, DVB-C, ATSC and DOCSIS with MOPLL (mixer, oscillator and digitally programmable PLL), for analog and stationary TV reception, tape & reel                                     |
| TUA 6034 T             | SP000013610 | PG-TSSOP-38-1 | Taifun: Full 3-band RF tuner for PAL/NTSC, DVB-T, DVB-C, ISDB-T, ATSC and OPEN CABLE standard with MOPLL (mixer, oscillator and digitally programmable PLL), for stationary and portable TV reception, tape & reel |
| TUA 6034 V             | SP000017969 | PG-VQFN-48-1  | Taifun: Full 3-band RF tuner for PAL/NTSC, DVB-T, DVB-C, ISDB-T, ATSC and OPEN CABLE standard with MOPLL (mixer, oscillator and digitally programmable PLL), for stationary and portable TV reception, tape & reel |
| TUA 6036 T             | SP000014627 | PG-TSSOP-38-1 | Taifun: Full 3-band RF tuner for PAL/NTSC, DVB-T, DVB-C, ISDB-T, ATSC and OPEN CABLE standard with MOPLL (mixer, oscillator and digitally programmable PLL), for stationary TV reception, tape & reel              |
| TDA 6190 T GEG DRYPACK | SP000012811 | PG-DSO-16-1   | Tuner: Digital TV mixer for QAM or QFDM modulated signals, for stationary TV reception, tape & reel                                                                                                                |
| TDA 6190 T GEG         | SP000012810 | PG-DSO-16-1   | Tuner: Digital TV mixer for QAM or QFDM modulated signals, for stationary TV reception, tape & reel                                                                                                                |
| TDA 6192 T DRYPACK     | SP000013410 | PG-TSSOP-16-1 | Tuner: Direct IF sampling amplifier, for stationary and portable TV reception, tape & reel                                                                                                                         |
| TDA 6192 T             | SP000013411 | PG-TSSOP-16-1 | Tuner: Direct IF sampling amplifier, for stationary and portable TV reception, tape & reel                                                                                                                         |
| TDA 6192 V             | SP000017968 | PG-VQFN-20-3  | Tuner: Direct IF sampling amplifier, for stationary and portable TV reception, tape & reel                                                                                                                         |
| ▼ TUA 6041             | SP000018085 | PG-VQFN-48-1  | Lighting: Digitally aligned, full 3-band, low power RF tuner IC, with integrated IF AGC, for portable TV reception, tape & reel                                                                                    |
| ▼ TUA 6045             | SP000018086 | PG-VQFN-48-1  | Taifun 3: Full 3-band, low power RF tuner IC with integrated AGC amplifier, for portable TV reception, tape & reel                                                                                                 |

SMD = Surface Mounted Device

| Type                                                                | Ordering Code | Package | Description                                                              |
|---------------------------------------------------------------------|---------------|---------|--------------------------------------------------------------------------|
| <b>Wireless Communication</b>                                       |               |         |                                                                          |
| <b>Tuner ICs</b><br>(cont'd)                                        |               |         |                                                                          |
| ▼ KTS 6027-2 Evaboard                                               | on request    | —       | Tuner: Evaluation board for KTS 6027-2                                   |
| ▼ KTS 6027-2 Ref Tuner                                              | on request    | —       | Tuner: Reference tuner board with KTS 6027-2                             |
| ▼ TDA 6190 T Evaboard                                               | on request    | —       | Taifun: Evaluation board for TDA 6190 T                                  |
| ▼ TDA 6192 T Evaboard                                               | on request    | —       | Taifun: Evaluation board for TDA 6192 T                                  |
| ▼ TUA 6020 Evaboard                                                 | on request    | —       | Tuner: Evaluation board for TUA 6020                                     |
| ▼ TUA 6024-2 Evaboard                                               | on request    | —       | Tuner: Evaluation board for TUA 6024-2                                   |
| ▼ TUA 6030 Evaboard                                                 | on request    | —       | Tuner: Evaluation board for TUA 6030                                     |
| ▼ TUA 6034 + TDA 6190 T<br>Low IF Half NIM                          | on request    | —       | Taifun: Low IF half NIM with TUA 6034 + TDA 6190 T                       |
| ▼ TUA 60342 V Mini Half<br>NIM                                      | on request    | —       | Taifun: Mini half NIM board with TUA 6034 V                              |
| ▼ TUA 6034 ATSC<br>Reference NIM LGE<br>Demod                       | on request    | —       | Taifun: Reference NIM board (ATSC) with LGE Demodulator with<br>TUA 6034 |
| ▼ TUA 6034 ATSC<br>Reference Tuner                                  | on request    | —       | Taifun: Reference tuner board with TUA 6034                              |
| ▼ TUA 6034 DVB-T<br>Reference NIM Micronas<br>Demod                 | on request    | —       | Taifun: Reference NIM (DVB-T) with Micronas Demodulator with<br>TUA 6034 |
| ▼ TUA 6034 DVB-T<br>Reference Tuner                                 | on request    | —       | Taifun: Reference tuner board with TUA 6034                              |
| ▼ TUA 6034 Evaboard                                                 | on request    | —       | Taifun: Evaluation board for TUA 6034                                    |
| ▼ TUA 6034 T+TDA 6192 T<br>HALF NIM                                 | on request    | —       | Taifun: Half NIM board with TUA 6034 T + TDA 6192 T                      |
| ▼ TUA 6034 T ATSC<br>Evaboard                                       | on request    | —       | Taifun: Evaluation board (ISDB-T) for TUA 6045                           |
| ▼ TUA 6034 T DVB<br>Reference NIM Cad Data<br>DVB-T with PNP PN2020 | on request    | —       | Taifun: Reference NIM board (DVB-T) with TUA 6045                        |
| ▼ TUA 6034 T ISDB-T<br>Evaboard                                     | on request    | —       | Taifun: Evaluation board (ISDB-T) for TUA 6034                           |
| ▼ TUA 6034 T ISDB -T<br>Reference Tuner                             | on request    | —       | Taifun: Reference tuner board (ISBD-T) with TUA 6034                     |
| ▼ TUA 6034 V Evaboard                                               | on request    | —       | Taifun: Evaluation board for TUA 6034 V                                  |
| ▼ TUA 6036 T Evaboard                                               | on request    | —       | Tuner: Evaluation board for TUA 6036 T                                   |
| ▼ TUA6041 Evaboard                                                  | on request    | —       | Lighting: Evaluation board for TUA 6041                                  |
| ▼ TUA6041 Ref Tuner UHF                                             | on request    | —       | Lighting: Reference tuner board (UHF) for TUA 6041                       |
| ▼ TUA6045 Evaboard<br>DVB-T                                         | on request    | —       | Taifun 3: Evaluation board (DVB-T) for TUA 6045                          |
| ▼ TUA6045 Evaboard<br>ISDB-T                                        | on request    | —       | Taifun 3: Evaluation board (ISDB-T) for TUA 6045                         |
| ▼ TUA6045 Evaboard<br>ATSC                                          | on request    | —       | Taifun 3: Evaluation board (ATSC) for TUA 6045                           |
| ▼ TUA6045 Evaboard<br>T-DMB                                         | on request    | —       | Taifun 3: Evaluation board (T-DMB) for TUA 6045                          |
| ▼ TUA6045 Ref Tuner<br>T-DMB/DAB (BAND III)                         | on request    | —       | Taifun 3: Reference tuner board (T-DMB/DAB Band III) with<br>TUA 6045    |

SMD = Surface Mounted Device

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## Microcontrollers

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|                                |    |
|--------------------------------|----|
| Microcontrollers, 32-bit ..... | 26 |
| Microcontrollers, 16-bit ..... | 28 |
| Microcontrollers, 8-bit .....  | 46 |

## Microcontrollers

| Type                             | Ordering Code | Package       | Description                                                                                                                                                                                                                                                                                                                                                                                                         |
|----------------------------------|---------------|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Microcontrollers, 32-bit</b>  |               |               |                                                                                                                                                                                                                                                                                                                                                                                                                     |
| ▼ SAF-TC1100-L100EB<br>BB-Step   | SP000099818   | P-LBGA-208-2  | Consumer class TriCore™ CPU with 4-stage pipeline, floating point unit, memory management unit, 144-Kbyte on-chip SRAM, multifunctional general purpose timer unit with three 32-bit timer/counters, one capture and compare unit 6 for PWM signal generation, 100-MHz clock frequency, –40°C to 85°C, tray                                                                                                         |
| ▼ SAF-TC1100-L100EB-G<br>BB-Step | SP000106546   | PG-LBGA-208-2 | SAF-TC1100-L100EB, tray                                                                                                                                                                                                                                                                                                                                                                                             |
| ▼ SAF-TC1100-L100EB<br>BB-Step   | SP000099817   | P-LBGA-208-2  | as SAF-TC1100-L100EB, tape & reel                                                                                                                                                                                                                                                                                                                                                                                   |
| ▼ SAF-TC1100-L100EB-G<br>BB-Step | SP000106545   | PG-LBGA-208-2 |                                                                                                                                                                                                                                                                                                                                                                                                                     |
| ▼ SAF-TC1100-L150EB<br>BB-Step   | SP000106548   | P-LBGA-208-2  | as SAF-TC1100-L100EB, 150-MHz clock frequency, tray                                                                                                                                                                                                                                                                                                                                                                 |
| ▼ SAF-TC1100-L150EB-G<br>BB-Step | SP000099816   | PG-LBGA-208-2 |                                                                                                                                                                                                                                                                                                                                                                                                                     |
| ▼ SAF-TC1100-L150EB<br>BB-Step   | SP000106547   | P-LBGA-208-2  | as SAF-TC1100-L100EB, 150-MHz clock frequency, tape & reel                                                                                                                                                                                                                                                                                                                                                          |
| ▼ SAF-TC1100-L150EB-G<br>BB-Step | SP000099815   | PG-LBGA-208-2 |                                                                                                                                                                                                                                                                                                                                                                                                                     |
| ▼ SAF-TC1115L-100EB<br>BB-Step   | SP000099814   | P-LBGA-208-2  | High performance TriCore™ CPU with 4-stage pipeline, floating point unit, memory management unit, 144-Kbyte on-chip SRAM, multifunctional general purpose timer unit with three 32-bit timer/counters, two capture and compare unit 6 for PWM signal generation, multiCAN module with four CAN nodes, 100-MHz clock frequency, –40°C to 85°C, tray                                                                  |
| ▼ SAF-TC1115L-100EB-G<br>BB-Step | SP000106544   | PG-LBGA-208-2 | as SAF-TC1115L-100EB, tray                                                                                                                                                                                                                                                                                                                                                                                          |
| ▼ SAF-TC1115L-100EB<br>BB-Step   | SP000099813   | P-LBGA-208-2  | as SAF-TC1115L-100EB, tape & reel                                                                                                                                                                                                                                                                                                                                                                                   |
| ▼ SAF-TC1115L-100EB-G<br>BB-Step | SP000106543   | PG-LBGA-208-2 |                                                                                                                                                                                                                                                                                                                                                                                                                     |
| ▼ SAF-TC1115L-150EB<br>BB-Step   | SP000106542   | P-LBGA-208-2  | as SAF-TC1115L-100EB, 150-MHz clock frequency, tray                                                                                                                                                                                                                                                                                                                                                                 |
| ▼ SAF-TC1115L-150EB-G<br>BB-Step | SP000099812   | PG-LBGA-208-2 |                                                                                                                                                                                                                                                                                                                                                                                                                     |
| ▼ SAF-TC1115L-150EB<br>BB-Step   | SP000106541   | P-LBGA-208-2  | as SAF-TC1115L-100EB, 150-MHz clock frequency, tape & reel                                                                                                                                                                                                                                                                                                                                                          |
| ▼ SAF-TC1115L-150EB-G<br>BB-Step | SP000099811   | PG-LBGA-208-2 |                                                                                                                                                                                                                                                                                                                                                                                                                     |
| ▼ SAF-TC1130L-100EB<br>BB-Step   | SP000099810   | P-LBGA-208-2  | Industrial communication controller, TriCore™ CPU with 4-stage pipeline, floating point unit, memory management unit, 144-Kbyte on-chip SRAM, fast Ethernet controller with 10/100-Mbit/s, multifunctional general purpose timer unit with three 32-bit timer/counters, two capture and compare unit 6 for PWM signal generation, multiCAN module with four CAN nodes, 100-MHz clock frequency, –40°C to 85°C, tray |
| ▼ SAF-TC1130L-100EB-G<br>BB-Step | SP000106540   | PG-LBGA-208-2 | as SAF-TC1130L-100EB, tray                                                                                                                                                                                                                                                                                                                                                                                          |
| ▼ SAF-TC1130L-100EB<br>BB-Step   | SP000099809   | P-LBGA-208-2  | as SAF-TC1130L-100EB, tape & reel                                                                                                                                                                                                                                                                                                                                                                                   |
| ▼ SAF-TC1130L-100EB-G<br>BB-Step | SP000106539   | PG-LBGA-208-2 |                                                                                                                                                                                                                                                                                                                                                                                                                     |
| ▼ SAF-TC1130L-150EB<br>BB-Step   | SP000099808   | P-LBGA-208-2  | as SAF-TC1130L-100EB, 150-MHz frequency, tray                                                                                                                                                                                                                                                                                                                                                                       |
| ▼ SAF-TC1130L-150EB-G<br>BB-Step | SP000106538   | PG-LBGA-208-2 |                                                                                                                                                                                                                                                                                                                                                                                                                     |
| ▼ SAF-TC1130L-150EB<br>BB-Step   | SP000099807   | P-LBGA-208-2  | as SAF-TC1130L-150EB, tape & reel                                                                                                                                                                                                                                                                                                                                                                                   |
| ▼ SAF-TC1130L-150EB-G<br>BB-Step | SP000106119   | PG-LBGA-208-2 |                                                                                                                                                                                                                                                                                                                                                                                                                     |

SMD = Surface Mounted Device

## Microcontrollers

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| Type                                        | Ordering Code | Package       | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|---------------------------------------------|---------------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Microcontrollers, 32-bit</b><br>(cont'd) |               |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| ▼ SAF-TC1161-128F66HL<br>AA-Step            | SP000105856   | P-LQFP-176-1  | High performance TriCore™ CPU with 4-stage pipeline, 1-Mbyte embedded program flash, 16-Kbyte data flash, 48-Kbyte on-chip SRAM, floating point unit, 16-channel analog-to-digital converter unit with 8-, 10- or 12-bit resolution, general purpose timer array module, two asynchronous/synchronous serial channels with baud generator, 2-channel fast analog-to-digital converter unit, OCDS level 1 and 2, 66-MHz clock frequency, –40°C to 85°C, tray                                                                               |
| ▼ SAF-TC1162-128F66HL<br>AA-Step            | SP000105857   | P-LQFP-176-1  | as SAF-TC1161-128F66HL, with multiCAN module, two CAN nodes, tray                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| ▼ SAF-TC1163-128F80HL<br>AA-Step            | SP000105858   | PG-LQFP-176-1 | as SAF-TC1161-128F66HL, 56-Kbyte on-chip SRAM, 80-MHz clock frequency, –40°C to 85°C, tray                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| ▼ SAF-TC1164-128F80HL<br>AA-Step            | SP000105859   | PG-LQFP-176-1 | as SAF-TC1163-128F80HL, with multiCAN module, two CAN nodes, –40°C to 85°C, tray                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| ▼ SAF-TC1165-192F80HL<br>AA-Step            | SP000105860   | PG-LQFP-176-1 | as SAF-TC1161-128F66HL, 1.5-Mbyte embedded program flash, 32-Kbyte data flash, 80-Kbyte on-chip SRAM, 80-MHz clock frequency, –40°C to 85°C, tray                                                                                                                                                                                                                                                                                                                                                                                         |
| ▼ SAF-TC1166-192F80HL<br>AA-Step            | SP000105861   | PG-LQFP-176-1 | as SAF-TC1165-192F80HL, with multiCAN module, two CAN nodes, tray                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| ▼ SAK-TC1765N-L40EB<br>AC-Step              | SP000013498   | P-LBGA-260-2  | Advanced TriCore™ based controller for automotive and industrial applications (AUDO1™ family), 8-channel DMA controller, 48-Kbyte on-chip SRAM, multifunctional general purpose timer unit, watchdog timer, two on-chip CAN interfaces, two A/D converter, 40-MHz clock frequency, OCDS level 1, –40°C to 125°C, tray                                                                                                                                                                                                                     |
| ▼ SAK-TC1765N-L40EB-G<br>AC-Step            | SP000235281   | PG-LBGA-260-2 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| ▼ SAK-TC1765T-L40EB<br>AC-Step              | SP000094463   | P-LBGA-260-2  | as SAK-TC1765N-L40EB, additional 16-bit OCDS level 2 trace port, tape & reel                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| SAK-TC1775-L40E<br>BA-Step                  | SP000012965   | P-BGA-329-1   | Highly integrated TriCore™ based controller for automotive and industrial applications (AUDO1™ family), 93-Kbyte on-chip SRAM, multifunctional general purpose timer unit, watchdog timer, two on-chip CAN interfaces, two A/D converter, 40-MHz clock frequency, on-chip debug support (OCDS level 2), –40°C to 125°C, tray                                                                                                                                                                                                              |
| ▼ SAK-TC1775-L40E-G<br>BA-Step              | SP000235280   | PG-BGA-329-1  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| ▼ SAK-TC1766-192F80HL<br>BB-Step            | SP000101658   | PG-LQFP-176-1 | High performance TriCore™ CPU with 4-stage pipeline (AUDO-NG family), 1.5-Mbyte embedded program flash, 32-Kbyte data flash, 76-Kbyte on-chip SRAM, floating point unit, one 32-channel analog-to-digital converter unit with 8-, 10- or 12-bit resolution, general purpose timer array module, two synchronous serial channels with programmable data length and shift direction, 2-channel fast analog-to-digital converter unit, OCDS level 1 and 2, with multiCAN module, two CAN nodes, 80-MHz clock frequency, –40°C to 125°C, tray |
| SAF-TC1796-256F100E<br>BC-Step              | SP000064091   | P-BGA-416-4   | Highly integrated TriCore™ based controller for high-end automotive and industrial applications (AUDO-NG family), 2-Mbyte embedded program flash with ECC, 128-Kbyte data flash for scalable 16-Kbyte EEPROM emulation, 208-Kbyte on-chip SRAM, 16-Kbyte instruction cache, single precision floating point unit (FPU), 16-channel DMA controller, multifunctional general purpose timer unit, watchdog timer, two A/D converter, on-chip debug support (OCDS level 2), four CAN nodes, 100-MHz clock frequency, –40°C to 85°C, tray      |
| SAF-TC1796-256F150E<br>BC-Step              | SP000064092   | P-BGA-416-4   | as SAF-TC1796-256F100E, 150-MHz clock frequency, tray                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| ▼ SAF-TC1796-256F150E<br>BC-Step            | SP000096055   | P-BGA-416-4   | as SAF-TC1796-256F150E, tape & reel                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| ▼ SAK-TC1796-256F150E<br>BC-Step            | SP000097528   | P-BGA-416-4   | as SAK-TC1796-256F150E, tape & reel                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| ▼ SAK-TC1796-256F150E<br>BD-Step            | SP000228013   | P-BGA-416-4   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| ▼ SAK-TC1796-256F150E-G<br>BD-Step          | SP000228336   | PG-BGA-416-4  | as SAF-TC1796-256F150E, –40°C to 125°C, tray                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

SMD = Surface Mounted Device

## Microcontrollers

| Type                            | Ordering Code | Package       | Description                                                                                                                                                                                                                                                                                |
|---------------------------------|---------------|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Microcontrollers, 16-bit</b> |               |               |                                                                                                                                                                                                                                                                                            |
| ▼ SAB-C161CS-LF CA-Step         | SP000053817   | P-TQFP-128-2  | ROMless, 10-Kbyte on-chip SRAM, two on-chip CAN-interfaces (CAN1, CAN2), two 16-channel capture/compare units, 12-channel 10-bit ADC, watchdog timer, oscillator watchdog, additional 32-kHz oscillator, 25-MHz clock frequency, tray                                                      |
| ▼ SAB-C161CS-LF CA-Step         | SP000106860   | PG-TQFP-128-2 |                                                                                                                                                                                                                                                                                            |
| ▼ SAB-C161CS-LF CA-Step         | SP000016425   | P-TQFP-128-2  | as SAB-C161CS-LF, tape & reel                                                                                                                                                                                                                                                              |
| ▼ SAB-C161CS-LF CA-Step         | SP000106861   | PG-TQFP-128-2 |                                                                                                                                                                                                                                                                                            |
| SAF-C161CS-LF CA-Step           | SP000016999   | P-TQFP-128-2  | as SAB-C161CS-LF, –40°C to 85°C, tray                                                                                                                                                                                                                                                      |
| ▼ SAF-C161CS-LF                 | SP000106865   | PG-TQFP-128-2 |                                                                                                                                                                                                                                                                                            |
| ▼ SAF-C161CS-LF                 | SP000014380   | P-TQFP-128-2  | as SAF-C161CS-LF, tape & reel                                                                                                                                                                                                                                                              |
| ▼ SAF-C161CS-LF                 | SP000106866   | PG-TQFP-128-2 |                                                                                                                                                                                                                                                                                            |
| ▼ SAK-C161CS-LF CA-Step         | SP000016997   | P-TQFP-128-2  | as SAF-C161CS-LF, –40°C to 125°C, tray                                                                                                                                                                                                                                                     |
| ▼ SAK-C161CS-LF CA-Step         | SP000106868   | PG-TQFP-128-2 |                                                                                                                                                                                                                                                                                            |
| ▼ SAK-C161CS-LF CA-Step         | SP000016998   | P-TQFP-128-2  | as SAF-C161CS-LF, –40°C to 125°C, tape & reel                                                                                                                                                                                                                                              |
| ▼ SAK-C161CS-LF CA-Step         | SP000106869   | PG-TQFP-128-2 |                                                                                                                                                                                                                                                                                            |
| ▼ SAB-C161JC-LF CA-Step         | SP000057562   | P-TQFP-128-2  | as SAB-C161CS-LF, one on-chip CAN-interface (CAN1), serial data link module J1850 (SDLM), tray                                                                                                                                                                                             |
| ▼ SAB-C161JC-LF CA-Step         | SP000057563   | P-TQFP-128-2  | as SAB-C161JC-LF, tape & reel                                                                                                                                                                                                                                                              |
| ▼ SAK-C161JC-LF CA-Step         | SP000057699   | P-TQFP-128-2  | as SAB-C161JC-LF, –40°C to 125°C, tray                                                                                                                                                                                                                                                     |
| ▼ SAK-C161JC-LF CA-Step         | SP000057698   | P-TQFP-128-2  | as SAK-C161JC-LF, tape & reel                                                                                                                                                                                                                                                              |
| ▼ SAB-C161JI-LF CA-Step         | SP000057588   | P-TQFP-128-2  | as SAB-C161JC-LF, without CAN-interface (CAN1), tape & reel                                                                                                                                                                                                                                |
| ▼ SAF-C161JI-LF CA-Step         | SP000057564   | P-TQFP-128-2  | as SAB-C161JI-LF, –40°C to 85°C, tape & reel                                                                                                                                                                                                                                               |
| SAK-C161JI-32RF CA-Step         | SP000065641   | P-TQFP-128-2  | as SAB-C161JI-LF, 256-Kbyte on-chip ROM, –40°C to 125°C, tray                                                                                                                                                                                                                              |
| ▼ SAK-C161JI-32RF CA-Step       | SP000057491   | P-TQFP-128-2  | as SAK-C161JI-32RF, tape & reel                                                                                                                                                                                                                                                            |
| SAB-C161K-LM HA-Step            | SP000011584   | P-MQFP-80-1   | ROMless, 1-Kbyte on-chip RAM, one general purpose timer unit with 3 timers, two serial interfaces, 4 fast external interrupt inputs, 4-Mbyte address range, two chip select signals, DMUX bus, additional timer unit with capture input, operating range 5 V, 20-MHz clock frequency, tray |
| SAB-C161K-LM HA-Step            | SP000011585   | P-MQFP-80-1   | as SAB-C161K-LM, tape & reel                                                                                                                                                                                                                                                               |
| SAF-C161K-LM HA-Step            | SP000011620   | P-MQFP-80-1   | as SAB-C161K-LM, –40°C to 85°C, tray                                                                                                                                                                                                                                                       |
| ▼ SAF-C161K-LM3V HA-Step        | SP000011621   | P-MQFP-80-1   | as SAB-C161K-LM, operating range 3 V, –40°C to 85°C, tape & reel                                                                                                                                                                                                                           |
| SAB-C161O-LM HA-Step            | SP000011586   | P-MQFP-80-1   | as SAB-C161K-LM, 2-Kbyte on-chip internal RAM, two general purpose timer units with 5 timers, four chip-select signals, tray                                                                                                                                                               |
| SAB-C161O-LM HA-Step            | SP000011587   | P-MQFP-80-1   | as SAB-C161O-LM, tape & reel                                                                                                                                                                                                                                                               |
| SAF-C161O-LM HA-Step            | SP000011622   | P-MQFP-80-1   | as SAB-C161O-LM, –40°C to 85°C, tray                                                                                                                                                                                                                                                       |
| SAF-C161O-LM HA-Step            | SP000011623   | P-MQFP-80-1   | as SAF-C161O-LM, tape & reel                                                                                                                                                                                                                                                               |
| SAB-C161O-L25M HA-Step          | SP000014268   | P-MQFP-80-1   | as SAB-C161O-LM, 25-MHz clock frequency, tape & reel                                                                                                                                                                                                                                       |
| SAF-C161O-L25M HA-Step          | SP000014269   | P-MQFP-80-1   | as SAB-C161O-L25M, –40°C to 85°C, tape & reel                                                                                                                                                                                                                                              |
| SAB-C161O-LM3V HA-Step          | SP000011588   | P-MQFP-80-1   | as SAB-C161O-LM, operating range 3 V, tape & reel                                                                                                                                                                                                                                          |
| SAF-C161O-LM3V HA-Step          | SP000011624   | P-MQFP-80-1   | as SAB-C161O-LM3V, –40°C to 85°C, tape & reel                                                                                                                                                                                                                                              |

SMD = Surface Mounted Device

## Microcontrollers

| Type                                        | Ordering Code | Package      | Description                                                                                                                                                                                                                |
|---------------------------------------------|---------------|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Microcontrollers, 16-bit</b><br>(cont'd) |               |              |                                                                                                                                                                                                                            |
| SAB-C161PI-LF CA-Step                       | SP000014344   | P-TQFP-100-1 | ROMless, 3-Kbyte RAM, 8-bit ADC, real time clock, general purpose timer units, I <sup>2</sup> C Bus, USART, watchdog timer, idle and power down mode, operating range 5 V, 10-bit ADC, 20-MHz clock frequency, tape & reel |
| SAF-C161PI-LF CA-Step                       | SP000014359   | P-TQFP-100-1 | as SAB-C161PI-LF, –40°C to 85°C, tape & reel                                                                                                                                                                               |
| SAB-C161PI-LF3V CA-Step                     | SP000014360   | P-TQFP-100-1 | as SAB-C161PI-LF, operating range 3 V, tape & reel                                                                                                                                                                         |
| SAF-C161PI-LF3V CA-Step                     | SP000014361   | P-TQFP-100-1 | as SAB-C161PI-LF 3 V, –40°C to 85°C, tape & reel                                                                                                                                                                           |
| ▼ SAB-C161PI-L25F CA-Step                   | SP000014362   | P-TQFP-100-1 | as SAB-C161PI-LF, 25-MHz clock frequency, tape & reel                                                                                                                                                                      |
| ▼ SAF-C161PI-L25F CA-Step                   | SP000014363   | P-TQFP-100-1 | as SAB-C161PI-L25F, –40°C to 85°C, tape & reel                                                                                                                                                                             |
| SAB-C161PI-LM CA-Step                       | SP000014345   | P-MQFP-100-2 | as SAB-C161PI-LF, MQFP package, tape & reel                                                                                                                                                                                |
| SAF-C161PI-LM CA-Step                       | SP000014364   | P-MQFP-100-2 | as SAB-C161PI-LM, –40°C to 85°C, tape & reel                                                                                                                                                                               |
| SAB-C161PI-LM3V CA-Step                     | SP000014365   | P-MQFP-100-2 | as SAB-C161PI-LM, operating range 3 V, tape & reel                                                                                                                                                                         |
| SAF-C161PI-LM3V CA-Step                     | SP000014366   | P-MQFP-100-2 | as SAB-C161PI-LM 3V, –40°C to 85°C, tape & reel                                                                                                                                                                            |
| ▼ SAB-C161PI-L25M CA-Step                   | SP000014367   | P-MQFP-100-2 | as SAB-C161PI-LM, 25-MHz clock frequency, tape & reel                                                                                                                                                                      |
| SAF-C161PI-L25M CA-Step                     | SP000014368   | P-MQFP-100-2 | as SAB-C161PI-L25M, –40°C to 85°C, tape & reel                                                                                                                                                                             |
| SAB-C161S-L25M AA-Step                      | SP000014739   | P-MQFP-80-7  | as SAB-C161PI-LM, low cost version, 25-MHz clock frequency, tape & reel                                                                                                                                                    |
| SAF-C161S-L25M AA-Step                      | SP000014947   | P-MQFP-80-7  | as SAB-C161S-L25M, –40°C to 85°C, tape & reel                                                                                                                                                                              |
| SAB-C161S-LM3V AA-Step                      | SP000014946   | P-MQFP-80-7  | as SAB-C161PI-LM, low cost version, operating range 3 V, tape & reel                                                                                                                                                       |
| SAF-C161S-LM3V AA-Step                      | SP000014948   | P-MQFP-80-7  | as SAB-C161PI-LM, –40°C to 85°C, tape & reel                                                                                                                                                                               |

SMD = Surface Mounted Device

## Microcontrollers

| Type                                        | Ordering Code | Package        | Description                                                                                                                                                                                                                                                                                                                    |
|---------------------------------------------|---------------|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Microcontrollers, 16-bit</b><br>(cont'd) |               |                |                                                                                                                                                                                                                                                                                                                                |
| ▼ SAF-XC161CJ-16F20F<br>BB-Step             | SP000083663   | P-TQFP-144-19  | 128-Kbyte on-chip program memory (flash memory), 8-Kbyte RAM, programmable watchdog timer, oscillator watchdog, two 16-channel general purpose capture/compare units, TwinCAN module, two Full-CAN nodes, serial data link module (J1850), 12-channel 10-bit A/D converter, 20-MHz clock frequency, –40°C to 85°C, tape & reel |
| ▼ SAF-XC161CJ-16F20F<br>BB-Step             | SP000231472   | PG-TQFP-144-19 |                                                                                                                                                                                                                                                                                                                                |
| ▼ SAK-XC161CJ-16F20F<br>BB-Step             | SP000096148   | P-TQFP-144-19  | as SAF-XC161CJ-16F20F, –40°C to 125°C, tape & reel                                                                                                                                                                                                                                                                             |
| ▼ SAK-XC161CJ-16F20F<br>BB-Step             | SP000224538   | PG-TQFP-144-19 |                                                                                                                                                                                                                                                                                                                                |
| ▼ SAF-XC161CJ-16F40F<br>BB-Step             | SP000096147   | P-TQFP-144-19  | as SAF-XC161CJ-16F20F, 40-MHz clock frequency, tape & reel                                                                                                                                                                                                                                                                     |
| ▼ SAF-XC161CJ-16F40F<br>BB-Step             | SP000224537   | PG-TQFP-144-19 |                                                                                                                                                                                                                                                                                                                                |
| ▼ SAK-XC161CJ-16F40F<br>BB-Step             | SP000083664   | P-TQFP-144-19  | as SAF-XC161CJ-16F40F, –40°C to 125°C, tape & reel                                                                                                                                                                                                                                                                             |
| ▼ SAK-XC161CJ-16F40F<br>BB-Step             | SP000224540   | PG-TQFP-144-19 |                                                                                                                                                                                                                                                                                                                                |
| ▼ SAF-XC161CS-32F20F<br>BB-A-Step           | SP000098772   | P-TQFP-144-19  | 256-Kbyte on-chip program memory (flash memory), 12-Kbyte RAM, programmable watchdog timer, oscillator watchdog, two 16-channel general purpose capture/compare units, TwinCAN module, two Full-CAN nodes, serial data link module (J1850), 20-MHz clock frequency, –40°C to 85°C, tape & reel                                 |
| ▼ SAF-XC161CS-32F20F<br>BB-A-Step           | SP000224541   | PG-TQFP-144-19 |                                                                                                                                                                                                                                                                                                                                |
| ▼ SAK-XC161CS-32F20F<br>BB-A-Step           | SP000098774   | P-TQFP-144-19  | as SAF-XC161CS-32F20F, –40°C to 125°C, tape & reel                                                                                                                                                                                                                                                                             |
| ▼ SAK-XC161CS-32F20F<br>BB-A-Step           | SP000224543   | PG-TQFP-144-19 |                                                                                                                                                                                                                                                                                                                                |
| ▼ SAF-XC161CS-32F40F<br>BB-A-Step           | SP000098773   | P-TQFP-144-19  | as SAF-XC161CS-32F20F, 40-MHz clock frequency, tape & reel                                                                                                                                                                                                                                                                     |
| ▼ SAF-XC161CS-32F40F<br>BB-A-Step           | SP000224542   | PG-TQFP-144-19 |                                                                                                                                                                                                                                                                                                                                |
| ▼ SAK-XC161CS-32F40F<br>BB-A-Step           | SP000098775   | P-TQFP-144-19  | as SAF-XC161CS-32F40F, –40°C to 125°C, tape & reel                                                                                                                                                                                                                                                                             |
| ▼ SAK-XC161CS-32F40F<br>BB-A-Step           | SP000224544   | PG-TQFP-144-19 |                                                                                                                                                                                                                                                                                                                                |

SMD = Surface Mounted Device

## Microcontrollers

| Type                                        | Ordering Code | Package      | Description                                                                                                                                                                                                                             |
|---------------------------------------------|---------------|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Microcontrollers, 16-bit</b><br>(cont'd) |               |              |                                                                                                                                                                                                                                         |
| ▼ SAF-C164CI-LM CA+-Step                    | SP000017582   | P-MQFP-80-7  | ROMless, 4-Kbyte on-chip static RAM, 10-bit- ADC, real time clock, programmable watchdog timer, oscillator watchdog, idle and power down mode, full CAN-controller (V 2.0 B active), 20-MHz clock frequency, –40°C to 85°C, tape & reel |
| ▼ SAF-C164CI-LM CA+-Step                    | SP000103495   | PG-MQFP-80-7 |                                                                                                                                                                                                                                         |
| SAK-C164CI-LM CA+-Step                      | SP000017581   | P-MQFP-80-7  | as SAF-C164CI-LM, –40°C to 125°C, CA-Step, tape & reel                                                                                                                                                                                  |
| ▼ SAK-C164CI-LM CA+-Step                    | SP000103497   | PG-MQFP-80-7 |                                                                                                                                                                                                                                         |
| SAF-C164CI-L25M CA-Step                     | SP000014436   | P-MQFP-80-7  | as SAF-C164CI-LM, 25-MHz clock frequency, CA-Step, tape & reel                                                                                                                                                                          |
| ▼ SAK-C164CI-L25M CA+-Step                  | SP000059303   | P-MQFP-80-7  | as SAF-C164CI-L25M, –40°C to 125°C, CA+-Step, tape & reel                                                                                                                                                                               |
| SAB-C164CI-LM3V CA+-Step                    | SP000014439   | P-MQFP-80-7  | as SAF-C164CI-LM, operating range 3 V, –0°C to 70°C, tape & reel                                                                                                                                                                        |
| ▼ SAF-C164CI-8EM CB-Step                    | SP000067718   | P-MQFP-80-7  | as SAF-C164CI-LM, 64-Kbyte OTP-memory, drive control unit, tray                                                                                                                                                                         |
| ▼ SAF-C164CI-8EM CB-Step                    | SP000103498   | PG-MQFP-80-7 |                                                                                                                                                                                                                                         |
| ▼ SAF-C164CI-8EM CB-Step                    | SP000067719   | P-MQFP-80-7  | as SAF-C164CI-8EM, tape & reel                                                                                                                                                                                                          |
| ▼ SAF-C164CI-8EM CB-Step                    | SP000103499   | PG-MQFP-80-7 |                                                                                                                                                                                                                                         |
| ▼ SAF-C164CI-8EM DB-Step                    | SP000057429   | P-MQFP-80-7  | as SAF-C164CI-8EM, DB-Step, tray                                                                                                                                                                                                        |
| ▼ SAF-C164CI-8EM DB-Step                    | SP000104055   | PG-MQFP-80-7 |                                                                                                                                                                                                                                         |
| ▼ SAF-C164CI-8EM DB-Step                    | SP000057430   | P-MQFP-80-7  | as SAF-C164CI-8EM, DB-Step, tape & reel                                                                                                                                                                                                 |
| ▼ SAF-C164CI-8EM DB-Step                    | SP000104056   | PG-MQFP-80-7 |                                                                                                                                                                                                                                         |
| ▼ SAK-C164CI-8EM CB-Step                    | SP000057420   | P-MQFP-80-7  | as SAF-C164CI-8M, –40°C to 125°C, tray                                                                                                                                                                                                  |
| ▼ SAK-C164CI-8EM CB-Step                    | SP000103500   | PG-MQFP-80-7 |                                                                                                                                                                                                                                         |
| ▼ SAK-C164CI-8EM CB-Step                    | SP000067720   | P-MQFP-80-7  | as SAK-C164CI-8EM, tape & reel                                                                                                                                                                                                          |
| ▼ SAK-C164CI-8EM CB-Step                    | SP000103501   | PG-MQFP-80-7 |                                                                                                                                                                                                                                         |
| ▼ SAK-C164CI-8EM DA-Step                    | SP000013602   | P-MQFP-80-7  | as SAK-C164CI-8EM, DA-Step, tape & reel                                                                                                                                                                                                 |
| ▼ SAK-C164CI-8EM DB-Step                    | SP000054995   | P-MQFP-80-7  | as SAK-C164CI-8EM, DB-Step, tray                                                                                                                                                                                                        |
| ▼ SAK-C164CI-8EM DB-Step                    | SP000104059   | PG-MQFP-80-7 |                                                                                                                                                                                                                                         |
| ▼ SAK-C164CI-8EM DB-Step                    | SP000057419   | P-MQFP-80-7  | as SAK-C164CI-8EM, tape & reel                                                                                                                                                                                                          |
| ▼ SAK-C164CI-8EM DB-Step                    | SP000104060   | PG-MQFP-80-7 |                                                                                                                                                                                                                                         |
| ▼ SAF-C164CI-8E25M DB-Step                  | SP000057427   | P-MQFP-80-7  | as SAF-C164CI-8EM, 25-MHz clock frequency, tray                                                                                                                                                                                         |
| ▼ SAF-C164CI-8E25M DB-Step                  | SP000104053   | PG-MQFP-80-7 |                                                                                                                                                                                                                                         |
| ▼ SAF-C164CI-8E25M DB-Step                  | SP000057428   | P-MQFP-80-7  | as SAF-C164CI-8E25M, tape & reel                                                                                                                                                                                                        |
| ▼ SAF-C164CI-8E25M DB-Step                  | SP000104054   | PG-MQFP-80-7 |                                                                                                                                                                                                                                         |
| ▼ SAF-C164CI-8E28M DB-Step                  | SP000057421   | P-MQFP-80-7  | as SAF-C164C8EM, 28-MHz clock frequency, tape & reel                                                                                                                                                                                    |
| ▼ SAK-C164CI-8E25M DB-Step                  | SP000057431   | P-MQFP-80-7  | as SAF-C164CI-825M, tray                                                                                                                                                                                                                |
| ▼ SAK-C164CI-8E25M DB-Step                  | SP000104057   | PG-MQFP-80-7 |                                                                                                                                                                                                                                         |
| ▼ SAK-C164CI-8E25M DB-Step                  | SP000057417   | P-MQFP-80-7  | as SAK-C164CI-8E25M, tape & reel                                                                                                                                                                                                        |
| ▼ SAK-C164CI-8E25M DB-Step                  | SP000104058   | PG-MQFP-80-7 |                                                                                                                                                                                                                                         |

SMD = Surface Mounted Device

## Microcontrollers

| Type                                        | Ordering Code | Package      | Description                                                                                                                                                                                                                             |
|---------------------------------------------|---------------|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Microcontrollers, 16-bit</b><br>(cont'd) |               |              |                                                                                                                                                                                                                                         |
| ▼ SAB-C164CL-8R25M<br>CA+-Step              | SP000084083   | P-MQFP-80-7  | as SAF-C164CI-LM, 16-Kbyte ROM, reduced CAPCOM functionality, 0°C to 70°C, 25-MHz clock frequency, tape & reel                                                                                                                          |
| ▼ SAF-C164CM-4EF<br>AB-Step                 | SP000068276   | P-TQFP-64-4  | 32-Kbyte OTP memory, 2-Kbyte on-chip static RAM, 10-bit ADC, real time clock, programmable watchdog timer, oscillator watchdog, on-chip CAN-interface (V 2.0 B active), drive control unit, 20-MHz clock frequency, –40°C to 85°C, tray |
| ▼ SAF-C164CM-4EF<br>AB-Step                 | SP000104061   | PG-TQFP-64-4 |                                                                                                                                                                                                                                         |
| ▼ SAF-C164CM-4EF<br>AB-Step                 | SP000068277   | P-TQFP-64-4  |                                                                                                                                                                                                                                         |
| ▼ SAF-C164CM-4EF<br>AB-Step                 | SP000104062   | PG-TQFP-64-4 | as SAF-C164CM-EF, AB-Step, tape & reel                                                                                                                                                                                                  |
| ▼ SAK-C164CM-4EF<br>AB-Step                 | SP000056829   | P-TQFP-64-4  | as SAF-C164CM-4EF, –40°C to 125°C, tape & reel                                                                                                                                                                                          |
| ▼ SAK-C164CM-4EF<br>AB-Step                 | SP000104063   | PG-TQFP-64-4 |                                                                                                                                                                                                                                         |
| SAF-C164CM-4E25F                            | SP000065629   | P-TQFP-64-4  | as SAF-C164CM-4EF, 25-MHz clock frequency, tray                                                                                                                                                                                         |

SMD = Surface Mounted Device

## Microcontrollers

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| Type                                        | Ordering Code | Package      | Description                                                                                                                                                                                                                                                                                   |
|---------------------------------------------|---------------|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Microcontrollers, 16-bit</b><br>(cont'd) |               |              |                                                                                                                                                                                                                                                                                               |
| ▼ SAF-XC164CM-4F20F<br>AA-Step              | SP000203862   | PG-TQFP-64-4 | 32-Kbyte on-chip program memory (flash memory), 2-Kbyte embedded static RAM, programmable watchdog timer, oscillator watchdog, one 16-channel purpose capture/compare units, TwinCAN module, one Full-CAN nodes, 14-channel 10-Bit A/D converter, 20-MHz clock frequency, –40°C to 85°C, tray |
| ▼ SAF-XC164CM-4F20F<br>AA-Step              | SP000084408   | PG-TQFP-64-4 | as SAF-XC164CM-4F20F, tape & reel                                                                                                                                                                                                                                                             |
| ▼ SAK-XC164CM-4F20F<br>AA-Step              | SP000203866   | PG-TQFP-64-4 | as SAF-XC164CM-4F20F, –40°C to 125°C, tray                                                                                                                                                                                                                                                    |
| ▼ SAK-XC164CM-4F20F<br>AA-Step              | SP000084409   | PG-TQFP-64-4 | as SAK-XC164CM-4F20F, tape & reel                                                                                                                                                                                                                                                             |
| ▼ SAF-XC164CM-4F40F<br>AA-Step              | SP000203863   | PG-TQFP-64-4 | as SAF-XC164CM-4F20F, 40-MHz clock frequency, tray                                                                                                                                                                                                                                            |
| ▼ SAF-XC164CM-4F40F<br>AA-Step              | SP000084410   | PG-TQFP-64-4 | as SAF-XC164CM-4F40F, tape & reel                                                                                                                                                                                                                                                             |
| ▼ SAK-XC164CM-4F40F<br>AA-Step              | SP000203867   | PG-TQFP-64-4 | as SAF-XC164CM-4F40F, –40°C to 125°C, tray                                                                                                                                                                                                                                                    |
| ▼ SAK-XC164CM-4F40F<br>AA-Step              | SP000084411   | PG-TQFP-64-4 | as SAK-XC164CM-4F40F, tape & reel                                                                                                                                                                                                                                                             |
| SAF-XC164CM-8F20F<br>AA-Step                | SP000203864   | PG-TQFP-64-4 | as SAF-XC164CM4F20F, 64-Kbyte on-chip program memory (flash memory), tray                                                                                                                                                                                                                     |
| SAF-XC164CM-8F20F<br>AA-Step                | SP000065633   | PG-TQFP-64-4 | as SAF-XC164CM8F20F, tape & reel                                                                                                                                                                                                                                                              |
| ▼ SAK-XC164CM-8F20F<br>AA-Step              | SP000203868   | PG-TQFP-64-4 | as SAF-XC164CM-8F20F, –40°C to 125°C, tray                                                                                                                                                                                                                                                    |
| ▼ SAK-XC164CM-8F20F<br>AA-Step              | SP000065643   | PG-TQFP-64-4 | as SAK-XC164CM-8F20F, tape & reel                                                                                                                                                                                                                                                             |
| SAF-XC164CM-8F40F<br>AA-Step                | SP000203865   | PG-TQFP-64-4 | as SAF-XC164CM-8F20F, 40-MHz clock frequency, tray                                                                                                                                                                                                                                            |
| SAF-XC164CM-8F40F<br>AA-Step                | SP000065635   | PG-TQFP-64-4 | as SAF-XC164CM-8F40F, tape & reel                                                                                                                                                                                                                                                             |
| SAK-XC164CM-8F40F<br>AA-Step                | SP000203869   | PG-TQFP-64-4 | as SAF-XC164CM-8F40F, –40°C to 125°C, tray                                                                                                                                                                                                                                                    |
| SAK-XC164CM-8F40F<br>AA-Step                | SP000065644   | PG-TQFP-64-4 | as SAK-XC164CM-8F40F, tape & reel                                                                                                                                                                                                                                                             |
| ▼ SAF-XC164CR-16F20F<br>AA-Step             | SP000205541   | P-TQFP-64-4  | as SAF-XC164CM-4F20F, without CAN interface, 128-Kbyte on-chip program memory (flash memory), tape & reel                                                                                                                                                                                     |

SMD = Surface Mounted Device

## Microcontrollers

| Type                                        | Ordering Code | Package        | Description                                                                                                                                                                                                                                                                                   |
|---------------------------------------------|---------------|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Microcontrollers, 16-bit</b><br>(cont'd) |               |                |                                                                                                                                                                                                                                                                                               |
| ▼ SAF-XC164CS-8F20F<br>BB-Step              | SP000094524   | P-TQFP-100-16  | 64-Kbyte on-chip program memory (flash memory), 6-Kbyte embedded static RAM, programmable watchdog timer, oscillator watchdog, two 16-channel purpose capture/compare units, TwinCAN module, two Full-CAN nodes, 14-channel 10-bit A/D converter, 20-MHz clock frequency, –40°C to 85°C, tray |
| ▼ SAF-XC164CS-8F20F<br>BB-Step              | SP000224555   | PG-TQFP-100-16 |                                                                                                                                                                                                                                                                                               |
| ▼ SAF-XC164CS-8F20F<br>BB-Step              | SP000094523   | P-TQFP-100-16  | as SAF-XC164CS-8F20F, tape & reel                                                                                                                                                                                                                                                             |
| ▼ SAF-XC164CS-8F20F<br>BB-Step              | SP000224554   | PG-TQFP-100-16 |                                                                                                                                                                                                                                                                                               |
| ▼ SAK-XC164CS-8F20F<br>BB-Step              | SP000224563   | PG-TQFP-100-16 | as SAF-XC164CS-8F20F, –40°C to 125°C, tray                                                                                                                                                                                                                                                    |
| ▼ SAK-XC164CS-8F20F<br>BB-Step              | SP000096145   | P-TQFP-100-16  | as SAK-XC164CS-8F20F, tape & reel                                                                                                                                                                                                                                                             |
| ▼ SAK-XC164CS-8F20F<br>BB-Step              | SP000224562   | PG-TQFP-100-16 |                                                                                                                                                                                                                                                                                               |
| ▼ SAF-XC164CS-8F40F<br>BB-Step              | SP000094526   | P-TQFP-100-16  | as SAF-XC164CS-8F20F, 40-MHz clock frequency, tray                                                                                                                                                                                                                                            |
| ▼ SAF-XC164CS-8F40F<br>BB-Step              | SP000224557   | PG-TQFP-100-16 |                                                                                                                                                                                                                                                                                               |
| ▼ SAF-XC164CS-8F40F<br>BB-Step              | SP000094525   | P-TQFP-100-16  | as SAF-XC164CS-8F40F, tape & reel                                                                                                                                                                                                                                                             |
| ▼ SAF-XC164CS-8F40F<br>BB-Step              | SP000224556   | PG-TQFP-100-16 |                                                                                                                                                                                                                                                                                               |
| ▼ SAK-XC164CS-8F40F<br>BB-Step              | SP000224565   | PG-TQFP-100-16 | as SAF-XC164CS-8F40F, –40°C to 125°C, tray                                                                                                                                                                                                                                                    |
| ▼ SAK-XC164CS-8F40F<br>BB-Step              | SP000096146   | P-TQFP-100-16  | as SAK-XC164CS-8F40F, tape & reel                                                                                                                                                                                                                                                             |
| ▼ SAK-XC164CS-8F40F<br>BB-Step              | SP000224564   | PG-TQFP-100-16 |                                                                                                                                                                                                                                                                                               |
| ▼ SAF-XC164CS-16F20F<br>BB-Step             | SP000094305   | P-TQFP-100-16  | as SAF-XC164CS-8F20F, 128-Kbyte on-chip program memory (flash memory), tray                                                                                                                                                                                                                   |
| ▼ SAF-XC164CS-16F20F<br>BB-Step             | SP000224551   | PG-TQFP-100-16 |                                                                                                                                                                                                                                                                                               |
| ▼ SAF-XC164CS-16F20F<br>BB-Step             | SP000092085   | P-TQFP-100-16  | as SAF-XC164CS-16F20F, tape & reel                                                                                                                                                                                                                                                            |
| ▼ SAK-XC164CS-16F20F<br>BB-Step             | SP000224559   | PG-TQFP-100-16 | as SAF-XC164CS-16F20F, –40°C to 125°C, tray                                                                                                                                                                                                                                                   |
| ▼ SAK-XC164CS-16F20F<br>BB-Step             | SP000094533   | P-TQFP-100-16  | as SAK-XC164CS-16F20F, tape & reel                                                                                                                                                                                                                                                            |
| ▼ SAK-XC164CS-16F20F<br>BB-Step             | SP000224558   | PG-TQFP-100-16 |                                                                                                                                                                                                                                                                                               |
| ▼ SAF-XC164CS-16F40F<br>BB-Step             | SP000094313   | P-TQFP-100-16  | as SAF-XC164CS-16F20F, 40-MHz clock frequency, tray                                                                                                                                                                                                                                           |
| ▼ SAF-XC164CS-16F40F<br>BB-Step             | SP000224553   | PG-TQFP-100-16 |                                                                                                                                                                                                                                                                                               |
| ▼ SAF-XC164CS-16F40F<br>BB-Step             | SP000094312   | P-TQFP-100-16  | as SAF-XC164CS-16F40F, tape & reel                                                                                                                                                                                                                                                            |
| ▼ SAF-XC164CS-16F40F<br>BB-Step             | SP000224552   | PG-TQFP-100-16 |                                                                                                                                                                                                                                                                                               |
| ▼ SAK-XC164CS-16F40F<br>BB-Step             | SP000224561   | PG-TQFP-100-16 | as SAF-XC164CS-16F40F, –40°C to 125°C, tray                                                                                                                                                                                                                                                   |
| ▼ SAK-XC164CS-16F40F<br>BB-Step             | SP000083674   | P-TQFP-100-16  | as SAK-XC164CS-16F40F, tape & reel                                                                                                                                                                                                                                                            |
| ▼ SAK-XC164CS-16F40F<br>BB-Step             | SP000224560   | PG-TQFP-100-16 |                                                                                                                                                                                                                                                                                               |

SMD = Surface Mounted Device

## Microcontrollers

| Type                                        | Ordering Code | Package        | Description                                                                                |
|---------------------------------------------|---------------|----------------|--------------------------------------------------------------------------------------------|
| <b>Microcontrollers, 16-bit</b><br>(cont'd) |               |                |                                                                                            |
| ▼ SAF-XC164CS-32F20F<br>BB-A-Step           | SP000224591   | PG-TQFP-100-16 | as SAF-XC164CS-16F20F, 256-Kbyte on-chip program memory (flash memory), 12-Kbyte RAM, tray |
| ▼ SAF-XC164CS-32F20F<br>BB-A-Step           | SP000098787   | P-TQFP-100-16  | as SAF-XC164CS-32F20F, tape & reel                                                         |
| ▼ SAF-XC164CS-32F20F<br>BB-A-Step           | SP000224590   | PG-TQFP-100-16 |                                                                                            |
| ▼ SAK-XC164CS-32F20F<br>BB-A-Step           | SP000224595   | PG-TQFP-100-16 | as SAF-XC164CS-32F20F, –40°C to 125°C, tray                                                |
| ▼ SAK-XC164CS-32F20F<br>BB-A-Step           | SP000098788   | P-TQFP-100-16  | as SAK-XC164CS-32F20F, tape & reel                                                         |
| ▼ SAK-XC164CS-32F20F<br>BB-A-Step           | SP000222594   | PG-TQFP-100-16 |                                                                                            |
| ▼ SAF-XC164CS-32F40F<br>BB-A-Step           | SP000224593   | PG-TQFP-100-16 | as SAF-XC164CS-32F20F, 40-MHz clock frequency, tray                                        |
| ▼ SAF-XC164CS-32F40F<br>BB-A-Step           | SP000098670   | P-TQFP-100-16  | as SAF-XC164CS-32F40F, tape & reel                                                         |
| ▼ SAF-XC164CS-32F40F<br>BB-A-Step           | SP000224592   | PG-TQFP-100-16 |                                                                                            |
| ▼ SAK-XC164CS-32F40F<br>BB-A-Step           | SP000224597   | PG-TQFP-100-16 | as SAF-XC164CS-32F40F, –40°C to 125°C, tray                                                |
| ▼ SAK-XC164CS-32F40F<br>BB-A-Step           | SP000087332   | P-TQFP-100-16  | as SAK-XC164CS-32F40F, tape & reel                                                         |
| ▼ SAK-XC164CS-32F40F<br>BB-A-Step           | SP000224596   | PG-TQFP-100-16 |                                                                                            |

SMD = Surface Mounted Device

## Microcontrollers

| Type                                        | Ordering Code | Package        | Description                                                                                                                                                                                                                                                                                       |
|---------------------------------------------|---------------|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Microcontrollers, 16-bit</b><br>(cont'd) |               |                |                                                                                                                                                                                                                                                                                                   |
| ▼ SAF-XC164D-8F20F<br>BB-Step               | SP000094511   | P-TQFP-100-16  | 64-Kbyte on-chip program memory (flash memory), 6-Kbyte embedded static RAM, programmable watchdog timer, oscillator watchdog, two 16-channel purpose capture/compare units, TwinCAN module, two Full-CAN nodes, CAPCOM6E module, power saving modes, 20-MHz clock frequency, –40°C to 85°C, tray |
| ▼ SAF-XC164D-8F20F<br>BB-Step               | SP000224581   | PG-TQFP-100-16 |                                                                                                                                                                                                                                                                                                   |
| ▼ SAF-XC164D-8F20F<br>BB-Step               | SP000094510   | P-TQFP-100-16  | as SAF-XC164D-8F20F, tape & reel                                                                                                                                                                                                                                                                  |
| ▼ SAF-XC164D-8F20F<br>BB-Step               | SP000224580   | PG-TQFP-100-16 |                                                                                                                                                                                                                                                                                                   |
| ▼ SAF-XC164D-8F40F<br>BB-Step               | SP000094513   | P-TQFP-100-16  | as SAF-XC164D-8F20F, 40-MHz clock frequency, tray                                                                                                                                                                                                                                                 |
| ▼ SAF-XC164D-8F40F<br>BB-Step               | SP000224587   | PG-TQFP-100-16 |                                                                                                                                                                                                                                                                                                   |
| ▼ SAF-XC164D-8F40F<br>BB-Step               | SP000094512   | P-TQFP-100-16  | as SAF-XC164D-8F40F, tape & reel                                                                                                                                                                                                                                                                  |
| ▼ SAF-XC164D-8F40F<br>BB-Step               | SP000224586   | PG-TQFP-100-16 |                                                                                                                                                                                                                                                                                                   |
| ▼ SAF-XC164D-16F20F<br>BB-Step              | SP000094288   | P-TQFP-100-16  | as SAF-XC164D-8F20F, 128-Kbyte on-chip program memory (flash memory), tray                                                                                                                                                                                                                        |
| ▼ SAF-XC164D-16F20F<br>BB-Step              | SP000224569   | PG-TQFP-100-16 |                                                                                                                                                                                                                                                                                                   |
| ▼ SAF-XC164D-16F20F<br>BB-Step              | SP000094287   | P-TQFP-100-16  | as SAF-XC164D-16F20F, tape & reel                                                                                                                                                                                                                                                                 |
| ▼ SAF-XC164D-16F20F<br>BB-Step              | SP000224568   | PG-TQFP-100-16 |                                                                                                                                                                                                                                                                                                   |
| ▼ SAF-XC164D-16F40F<br>BB-Step              | SP000094300   | P-TQFP-100-16  | as SAF-XC164D-16F20F, 40-MHz clock frequency, tray                                                                                                                                                                                                                                                |
| ▼ SAF-XC164D-16F40F<br>BB-Step              | SP000224573   | PG-TQFP-100-16 |                                                                                                                                                                                                                                                                                                   |
| ▼ SAF-XC164D-16F40F<br>BB-Step              | SP000094299   | P-TQFP-100-16  | as SAF-XC164D-16F40F, tape & reel                                                                                                                                                                                                                                                                 |
| ▼ SAF-XC164D-16F40F<br>BB-Step              | SP000224572   | PG-TQFP-100-16 |                                                                                                                                                                                                                                                                                                   |

SMD = Surface Mounted Device

## Microcontrollers

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| Type                                        | Ordering Code | Package      | Description                                                                                                                                                                                                                                                  |
|---------------------------------------------|---------------|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Microcontrollers, 16-bit</b><br>(cont'd) |               |              |                                                                                                                                                                                                                                                              |
| ▼ SAF-XC164GM-4F20F<br>AA-Step              | SP000203871   | PG-TQFP-64-4 | 32-Kbyte on-chip program memory (flash memory), 2-Kbyte embedded static RAM, programmable watchdog timer, oscillator watchdog, TwinCAN module, one Full-CAN nodes, 14-channel 10-Bit A/D converter, 20-MHz clock frequency, -40°C to 85°C, tray              |
| ▼ SAF-XC164GM-4F20F<br>AA-Step              | SP000105862   | PG-TQFP-64-4 | as SAF-XC164GM-4F20F, tape & reel                                                                                                                                                                                                                            |
| ▼ SAF-XC164GM-4F40F<br>AA-Step              | SP000203876   | PG-TQFP-64-4 | as SAF-XC164GM-4F20F, 40-MHz clock frequency, tray                                                                                                                                                                                                           |
| ▼ SAF-XC164GM-4F40F<br>AA-Step              | SP000105867   | PG-TQFP-64-4 | as SAF-XC164GM-4F40F, tape & reel                                                                                                                                                                                                                            |
| ▼ SAF-XC164GM-8F20F<br>AA-Step              | SP000203881   | PG-TQFP-64-4 | as SAF-XC164GM-4F20F, 64-Kbyte on-chip program memory (flash memory), tray                                                                                                                                                                                   |
| ▼ SAF-XC164GM-8F20F<br>AA-Step              | SP000105744   | PG-TQFP-64-4 | as SAF-XC164GM-8F20F, tape & reel                                                                                                                                                                                                                            |
| ▼ SAF-XC164GM-8F40F<br>AA-Step              | SP000203886   | PG-TQFP-64-4 | as SAF-XC164GM-8F20F, 40-MHz clock frequency, tray                                                                                                                                                                                                           |
| ▼ SAF-XC164GM-8F40F<br>AA-Step              | SP000105876   | PG-TQFP-64-4 | as SAF-XC164GM-8F40F, tape & reel                                                                                                                                                                                                                            |
| ▼ SAF-XC164KM-4F20F<br>AA-Step              | SP000203872   | PG-TQFP-64-4 | 32-Kbyte on-chip program memory (flash memory), 2-Kbyte embedded static RAM, programmable watchdog timer, oscillator watchdog, one 16-channel purpose capture/compare units, TwinCAN module, one Full-CAN nodes, 20-MHz clock frequency, -40°C to 85°C, tray |
| ▼ SAF-XC164KM-4F20F<br>AA-Step              | SP000105863   | PG-TQFP-64-4 | as SAF-XC164KM-4F20F, tape & reel                                                                                                                                                                                                                            |
| ▼ SAF-XC164KM-4F40F<br>AA-Step              | SP000203877   | PG-TQFP-64-4 | as SAF-XC164KM-4F20F, 40-MHz clock frequency, tray                                                                                                                                                                                                           |
| ▼ SAF-XC164KM-4F40F<br>AA-Step              | SP000105868   | PG-TQFP-64-4 | as SAF-XC164KM-4F40F, tape & reel                                                                                                                                                                                                                            |
| ▼ SAF-XC164KM-8F20F<br>AA-Step              | SP000203882   | PG-TQFP-64-4 | as SAF-XC164KM-4F20F, 64-Kbyte on-chip program memory (flash memory), tray                                                                                                                                                                                   |
| ▼ SAF-XC164KM-8F20F<br>AA-Step              | SP000105872   | PG-TQFP-64-4 | as SAF-XC164KM-8F20F, tape & reel                                                                                                                                                                                                                            |
| ▼ SAF-XC164KM-8F40F<br>AA-Step              | SP000203887   | PG-TQFP-64-4 | as SAF-XC164KM-8F20F, 40-MHz clock frequency, tray                                                                                                                                                                                                           |
| ▼ SAF-XC164KM-8F40F<br>AA-Step              | SP000105877   | PG-TQFP-64-4 | as SAF-XC164KM-8F40F, tape & reel                                                                                                                                                                                                                            |
| ▼ SAF-XC164LM-4F20F<br>AA-Step              | SP000203873   | PG-TQFP-64-4 | 32-Kbyte on-chip program memory (flash memory), 2-Kbyte embedded static RAM, programmable watchdog timer, oscillator watchdog, 20-MHz clock frequency, -40°C to 85°C, tray                                                                                   |
| ▼ SAF-XC164LM-4F20F<br>AA-Step              | SP000105864   | PG-TQFP-64-4 | as SAF-XC164LM-4F20F, tape & reel                                                                                                                                                                                                                            |
| ▼ SAF-XC164LM-4F40F<br>AA-Step              | SP000203878   | PG-TQFP-64-4 | as SAF-XC164LM-4F20F, 40-MHz clock frequency, tray                                                                                                                                                                                                           |
| ▼ SAF-XC164LM-4F40F<br>AA-Step              | SP000105869   | PG-TQFP-64-4 | as SAF-XC164LM-4F40F, tape & reel                                                                                                                                                                                                                            |
| ▼ SAF-XC164LM-8F20F<br>AA-Step              | SP000203883   | PG-TQFP-64-4 | as SAF-XC164LM-4F20F, 64-Kbyte on-chip program memory (flash memory), tray                                                                                                                                                                                   |
| ▼ SAF-XC164LM-8F20F<br>AA-Step              | SP000105873   | PG-TQFP-64-4 | as SAF-XC164LM-8F20F, tape & reel                                                                                                                                                                                                                            |
| ▼ SAF-XC164LM-8F40F<br>AA-Step              | SP000203888   | PG-TQFP-64-4 | as SAF-XC164LM-8F20F, 40-MHz clock frequency, tray                                                                                                                                                                                                           |
| ▼ SAF-XC164LM-8F40F<br>AA-Step              | SP000105878   | PG-TQFP-64-4 | as SAF-XC164LM-8F40F, tape & reel                                                                                                                                                                                                                            |

SMD = Surface Mounted Device

## Microcontrollers

| Type                                        | Ordering Code | Package        | Description                                                                                                                                                                                                                                                                       |
|---------------------------------------------|---------------|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Microcontrollers, 16-bit</b><br>(cont'd) |               |                |                                                                                                                                                                                                                                                                                   |
| ▼ SAF-XC164N-8F20F<br>BB-Step               | SP000094515   | P-TQFP-100-16  | 64-Kbyte on-chip program memory (flash memory), 6-Kbyte embedded static RAM, programmable watchdog timer, oscillator watchdog, two 16-channel purpose capture/compare units, two Full-CAN nodes, CAPCOM6E module, power saving modes, 20-MHz clock frequency, -40°C to 85°C, tray |
| ▼ SAF-XC164N-8F20F<br>BB-Step               | SP000224583   | PG-TQFP-100-16 |                                                                                                                                                                                                                                                                                   |
| ▼ SAF-XC164N-8F20F<br>BB-Step               | SP000094514   | P-TQFP-100-16  | as SAF-XC164N-8F20F, tape & reel                                                                                                                                                                                                                                                  |
| ▼ SAF-XC164N-8F20F<br>BB-Step               | SP000224582   | PG-TQFP-100-16 |                                                                                                                                                                                                                                                                                   |
| ▼ SAF-XC164N-8F40F<br>BB-Step               | SP000094518   | P-TQFP-100-16  | as SAF-XC164N-8F40F, 40-MHz clock frequency, tray                                                                                                                                                                                                                                 |
| ▼ SAF-XC164N-8F40F<br>BB-Step               | SP000224589   | PG-TQFP-100-16 |                                                                                                                                                                                                                                                                                   |
| ▼ SAF-XC164N-8F40F<br>BB-Step               | SP000094517   | P-TQFP-100-16  | as SAF-XC164N-8F40F, tape & reel                                                                                                                                                                                                                                                  |
| ▼ SAF-XC164N-8F40F<br>BB-Step               | SP000224588   | PG-TQFP-100-16 |                                                                                                                                                                                                                                                                                   |
| ▼ SAF-XC164N-16F20F<br>BB-Step              | SP000094290   | P-TQFP-100-16  | as SAF-XC164N-8F20F, 128-Kbyte on-chip program memory (flash memory), tray                                                                                                                                                                                                        |
| ▼ SAF-XC164N-16F20F<br>BB-Step              | SP000224571   | PG-TQFP-100-16 |                                                                                                                                                                                                                                                                                   |
| ▼ SAF-XC164N-16F20F<br>BB-Step              | SP000094289   | P-TQFP-100-16  | as SAF-XC164N-16F20F, tape & reel                                                                                                                                                                                                                                                 |
| ▼ SAF-XC164N-16F20F<br>BB-Step              | SP000224570   | PG-TQFP-100-16 |                                                                                                                                                                                                                                                                                   |
| ▼ SAF-XC164N-16F40F<br>BB-Step              | SP000094302   | P-TQFP-100-16  | as SAF-XC164N-16F40F, 40-MHz clock frequency, tray                                                                                                                                                                                                                                |
| ▼ SAF-XC164N-16F40F<br>BB-Step              | SP000224575   | PG-TQFP-100-16 |                                                                                                                                                                                                                                                                                   |
| ▼ SAF-XC164N-16F40F<br>BB-Step              | SP000094301   | P-TQFP-100-16  | as SAF-XC164N-16F40F, tape & reel                                                                                                                                                                                                                                                 |
| ▼ SAF-XC164N-16F40F<br>BB-Step              | SP000224574   | PG-TQFP-100-16 |                                                                                                                                                                                                                                                                                   |

SMD = Surface Mounted Device

## Microcontrollers

| Type                                        | Ordering Code | Package        | Description                                                                                                                                                                                                                                                                                                        |
|---------------------------------------------|---------------|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Microcontrollers, 16-bit</b><br>(cont'd) |               |                |                                                                                                                                                                                                                                                                                                                    |
| ▼ SAF-XC164S-8F20F<br>BB-Step               | SP000094520   | P-TQFP-100-16  | 64-Kbyte on-chip program memory (flash memory), 6-Kbyte embedded static RAM, programmable watchdog timer, oscillator watchdog, two 16-channel purpose capture/compare units, 14-channel 10-bit A/D converter, two Full-CAN nodes, CAPCOM6E module, power saving modes, 20-MHz clock frequency, -40°C to 85°C, tray |
| ▼ SAF-XC164S-8F20F<br>BB-Step               | SP000224579   | PG-TQFP-100-16 |                                                                                                                                                                                                                                                                                                                    |
| ▼ SAF-XC164S-8F20F<br>BB-Step               | SP000094519   | P-TQFP-100-16  | as SAF-XC164S-8F20F, tape & reel                                                                                                                                                                                                                                                                                   |
| ▼ SAF-XC164S-8F20F<br>BB-Step               | SP000224578   | PG-TQFP-100-16 |                                                                                                                                                                                                                                                                                                                    |
| ▼ SAF-XC164S-8F40F<br>BB-Step               | SP000094522   | P-TQFP-100-16  | as SAF-XC164S-8F20F, 40-MHz clock frequency, tray                                                                                                                                                                                                                                                                  |
| ▼ SAF-XC164S-8F40F<br>BB-Step               | SP000224585   | PG-TQFP-100-16 |                                                                                                                                                                                                                                                                                                                    |
| ▼ SAF-XC164S-8F40F<br>BB-Step               | SP000094521   | P-TQFP-100-16  | as SAF-XC164S-8F40F, tape & reel                                                                                                                                                                                                                                                                                   |
| ▼ SAF-XC164S-8F40F<br>BB-Step               | SP000224584   | PG-TQFP-100-16 |                                                                                                                                                                                                                                                                                                                    |
| ▼ SAF-XC164S-16F20F<br>BB-Step              | SP000094298   | P-TQFP-100-16  | as SAF-XC164S-8F20F, 128-Kbyte on-chip program memory (flash memory), tray                                                                                                                                                                                                                                         |
| ▼ SAF-XC164S-16F20F<br>BB-Step              | SP000224567   | PG-TQFP-100-16 |                                                                                                                                                                                                                                                                                                                    |
| ▼ SAF-XC164S-16F20F<br>BB-Step              | SP000094296   | P-TQFP-100-16  | as SAF-XC164S-16F20F, tape & reel                                                                                                                                                                                                                                                                                  |
| ▼ SAF-XC164S-16F20F<br>BB-Step              | SP000224566   | PG-TQFP-100-16 |                                                                                                                                                                                                                                                                                                                    |
| ▼ SAF-XC164S-16F40F<br>BB-Step              | SP000094304   | P-TQFP-100-16  | as SAF-XC164S-16F20F, 40-MHz clock frequency, tray                                                                                                                                                                                                                                                                 |
| ▼ SAF-XC164S-16F40F<br>BB-Step              | SP000224577   | PG-TQFP-100-16 |                                                                                                                                                                                                                                                                                                                    |
| ▼ SAF-XC164S-16F40F<br>BB-Step              | SP000094303   | P-TQFP-100-16  | as SAF-XC164S-16F40F, tape & reel                                                                                                                                                                                                                                                                                  |
| ▼ SAF-XC164S-16F40F<br>BB-Step              | SP000224576   | PG-TQFP-100-16 |                                                                                                                                                                                                                                                                                                                    |

SMD = Surface Mounted Device

## Microcontrollers

| Type                                        | Ordering Code | Package      | Description                                                                                                                                                                                                                                               |
|---------------------------------------------|---------------|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Microcontrollers, 16-bit</b><br>(cont'd) |               |              |                                                                                                                                                                                                                                                           |
| ▼ SAF-XC164SM-4F20F<br>AA-Step              | SP000203874   | PG-TQFP-64-4 | 32-Kbyte on-chip program memory (flash memory), 2-Kbyte embedded static RAM, programmable watchdog timer, oscillator watchdog, one 16-channel purpose capture/compare units, 14-channel 10-Bit A/D converter, 20-MHz clock frequency, –40°C to 85°C, tray |
| ▼ SAF-XC164SM-4F20F<br>AA-Step              | SP000105865   | PG-TQFP-64-4 | as SAF-XC164SM-4F20F, tape & reel                                                                                                                                                                                                                         |
| ▼ SAF-XC164SM-4F40F<br>AA-Step              | SP000203879   | PG-TQFP-64-4 | as SAF-XC164SM-4F20F, 40-MHz clock frequency, tray                                                                                                                                                                                                        |
| ▼ SAF-XC164SM-4F40F<br>AA-Step              | SP000105870   | PG-TQFP-64-4 | as SAF-XC164SM-4F40F, tape & reel                                                                                                                                                                                                                         |
| ▼ SAF-XC164SM-8F20F<br>AA-Step              | SP000203884   | PG-TQFP-64-4 | as SAF-XC164SM-4F20F, 64-Kbyte on-chip program memory (flash memory), tray                                                                                                                                                                                |
| ▼ SAF-XC164SM-8F20F<br>AA-Step              | SP000105874   | PG-TQFP-64-4 | as SAF-XC164SM-8F20F, tape & reel                                                                                                                                                                                                                         |
| ▼ SAF-XC164SM-8F40F<br>AA-Step              | SP000203889   | PG-TQFP-64-4 | as SAF-XC164SM-8F20F, 40-MHz clock frequency, tray                                                                                                                                                                                                        |
| ▼ SAF-XC164SM-8F40F<br>AA-Step              | SP000105879   | PG-TQFP-64-4 | as SAF-XC164SM-8F40F, tape & reel                                                                                                                                                                                                                         |
| ▼ SAF-XC164TM-4F20F<br>AA-Step              | SP000203875   | PG-TQFP-64-4 | 32-Kbyte on-chip program memory (flash memory), 2-Kbyte embedded static RAM, programmable watchdog timer, oscillator watchdog, 14-channel 10-Bit A/D converter, 20-MHz clock frequency, –40°C to 85°C, tray                                               |
| ▼ SAF-XC164TM-4F20F<br>AA-Step              | SP000105866   | PG-TQFP-64-4 | as SAF-XC164TM-4F20F, tape & reel                                                                                                                                                                                                                         |
| ▼ SAF-XC164TM-4F40F<br>AA-Step              | SP000203880   | PG-TQFP-64-4 | as SAF-XC164TM-4F20F, 40-MHz clock frequency, tray                                                                                                                                                                                                        |
| ▼ SAF-XC164TM-4F40F<br>AA-Step              | SP000105871   | PG-TQFP-64-4 | as SAF-XC164TM-4F40F, tape & reel                                                                                                                                                                                                                         |
| ▼ SAF-XC164TM-8F20F<br>AA-Step              | SP000203885   | PG-TQFP-64-4 | as SAF-XC164TM-4F20F, 64-Kbyte on-chip program memory (flash memory), tray                                                                                                                                                                                |
| ▼ SAF-XC164TM-8F20F<br>AA-Step              | SP000105875   | PG-TQFP-64-4 | as SAF-XC164TM-8F20F, tape & reel                                                                                                                                                                                                                         |
| ▼ SAF-XC164TM-8F40F<br>AA-Step              | SP000203890   | PG-TQFP-64-4 | as SAF-XC164TM-8F20F, 40-MHz clock frequency, tray                                                                                                                                                                                                        |
| ▼ SAF-XC164TM-8F40F<br>AA-Step              | SP000105880   | PG-TQFP-64-4 | as SAF-XC164TM-8F40F, tape & reel                                                                                                                                                                                                                         |

SMD = Surface Mounted Device

## Microcontrollers

| Type                                        | Ordering Code | Package      | Description                                                                                                                                                                                                                                |
|---------------------------------------------|---------------|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Microcontrollers, 16-bit</b><br>(cont'd) |               |              |                                                                                                                                                                                                                                            |
| SAB-C165-LF HA-Step                         | SP000011595   | P-TQFP-100-1 | as SAB-C165-LM, P-TQFP package, operating range 5 V, tray                                                                                                                                                                                  |
| SAB-C165-LF HA-Step                         | SP000011596   | P-TQFP-100-1 | as SAB-C165-LF, tape & reel                                                                                                                                                                                                                |
| SAF-C165-LF HA-Step                         | SP000011631   | P-TQFP-100-1 | as SAB-C165-LF, –40°C to 85°C, tape & reel                                                                                                                                                                                                 |
| SAB-C165-LF3V HA-Step                       | SP000011597   | P-TQFP-100-1 | as SAB-C165-LF, operating range 3 V, tape & reel                                                                                                                                                                                           |
| SAF-C165-LF3V HA-Step                       | SP000011632   | P-TQFP-100-1 | as SAB-C165-LF3V, –40°C to 85°C, tape & reel                                                                                                                                                                                               |
| SAB-C165-L25F HA-Step                       | SP000011591   | P-TQFP-100-1 | as SAB-C165-LF, 25-MHz clock frequency, tray                                                                                                                                                                                               |
| SAB-C165-L25F HA-Step                       | SP000011592   | P-TQFP-100-1 | as SAB-C165-LF, tape & reel                                                                                                                                                                                                                |
| SAF-C165-L25F HA-Step                       | SP000012870   | P-TQFP-100-1 | as SAB-C165-L25F, –40°C to 85°C, tape & reel                                                                                                                                                                                               |
| SAB-C165-LM HA-Step                         | SP000011598   | P-MQFP-100-2 | ROMless, 2-Kbyte RAM, MCU-Core, compatible with SAB 80C166, additional 8 fast ext. interrupt inputs, 16-Mbyte address range, watchdog timer, 2 complex timer units, 2 serial interfaces, operating range 5 V, 20-MHz clock frequency, tray |
| SAB-C165-LM HA-Step                         | SP000011599   | P-MQFP-100-2 | as SAB-C165-LM, tape & reel                                                                                                                                                                                                                |
| SAF-C165-LM HA-Step                         | SP000011633   | P-MQFP-100-2 | as SAB-C165-LM, –40°C to 85°C, tray                                                                                                                                                                                                        |
| ▼ SAF-C165-LM HA-Step                       | SP000011634   | P-MQFP-100-2 | as SAF-C165-LM, tape & reel                                                                                                                                                                                                                |
| SAB-C165-LM3V HA-Step                       | SP000011600   | P-MQFP-100-2 | as SAB-C165-LM, operating range 3 V, tape & reel                                                                                                                                                                                           |
| SAF-C165-LM3V HA-Step                       | SP000011635   | P-MQFP-100-2 | as SAB-C165-LM3V, –40°C to 85°C, tape & reel                                                                                                                                                                                               |
| SAB-C165-L25M HA-Step                       | SP000011593   | P-MQFP-100-2 | as SAB-C165-LM, 25-MHz clock frequency, tray                                                                                                                                                                                               |
| SAB-C165-L25M HA-Step                       | SP000011594   | P-MQFP-100-2 | as SAB-C165-LM, tape & reel                                                                                                                                                                                                                |
| SAF-C165-L25M HA-Step                       | SP000011629   | P-MQFP-100-2 | as SAB-C165-L25M, –40°C to 85°C, tray                                                                                                                                                                                                      |
| SAF-C165-L25M HA-Step                       | SP000011630   | P-MQFP-100-2 | as SAB-C165-LM, tape & reel                                                                                                                                                                                                                |

SMD = Surface Mounted Device

## Microcontrollers

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| Type                                        | Ordering Code | Package       | Description                                                                                                                                                                                                                                                                                                                                             |
|---------------------------------------------|---------------|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Microcontrollers, 16-bit</b><br>(cont'd) |               |               |                                                                                                                                                                                                                                                                                                                                                         |
| ▼ SAB-C167CR-LM<br>HA+-Step                 | SP000017976   | P-MQFP-144-6  | ROMless, 2 × 2-Kbyte RAM, MCU-Core, compatible with SAB 80C166, 10-bit A/D converter, PWM unit, additional 8 fast ext. interrupt inputs, 16-Mbyte address range, watchdog timer, 2 complex timer units, two capture/compare units (32 registers, 4 timers), additional I/O lines, 2 serial interfaces, with CAN, with PLL, 20-MHz clock frequency, tray |
| ▼ SAB-C167CR-LM<br>HA+-Step                 | SP000103462   | PG-MQFP-144-6 | as SAB-C167CR-LM, tray                                                                                                                                                                                                                                                                                                                                  |
| ▼ SAB-C167CR-LM<br>HA+-Step                 | SP000017975   | P-MQFP-144-6  | as SAB-C167CR-LM, HA+-Step, tape & reel                                                                                                                                                                                                                                                                                                                 |
| ▼ SAB-C167CR-LM<br>HA+-Step                 | SP000103463   | PG-MQFP-144-6 | as SAB-C167CR-LM, tape & reel                                                                                                                                                                                                                                                                                                                           |
| ▼ SAF-C167CR-LM<br>HA+-Step                 | SP000016759   | P-MQFP-144-6  | as SAF-C167CR-LM, HA+-Step, tray                                                                                                                                                                                                                                                                                                                        |
| ▼ SAF-C167CR-LM<br>HA+-Step                 | SP000103464   | PG-MQFP-144-6 | as SAF-C167CR-LM, tray                                                                                                                                                                                                                                                                                                                                  |
| SAF-C167CR-LM<br>HA+-Step                   | SP000017995   | P-MQFP-144-6  | as SAF-C167CR-LM, HA+-Step, tape & reel                                                                                                                                                                                                                                                                                                                 |
| ▼ SAF-C167CR-LM<br>HA+-Step                 | SP000103465   | PG-MQFP-144-6 | as SAF-C167CR-LM, tape & reel                                                                                                                                                                                                                                                                                                                           |
| ▼ SAK-C167CR-LM<br>HA+-Step                 | SP000016753   | P-MQFP-144-6  | as SAK-C167CR-LM, HA+-Step, tray                                                                                                                                                                                                                                                                                                                        |
| ▼ SAK-C167CR-LM<br>HA+-Step                 | SP000103466   | PG-MQFP-144-6 |                                                                                                                                                                                                                                                                                                                                                         |
| ▼ SAK-C167CR-LM<br>HA+-Step                 | SP000016521   | P-MQFP-144-6  | as SAK-C167CR-LM, HA+-Step, tape & reel                                                                                                                                                                                                                                                                                                                 |
| ▼ SAK-C167CR-LM<br>HA+-Step                 | SP000103467   | PG-MQFP-144-6 |                                                                                                                                                                                                                                                                                                                                                         |
| ▼ SAK-C167CR-L33M<br>HA+-Step               | SP000017997   | P-MQFP-144-6  | as SAK-C167CR-L33M, HA+-Step, tray                                                                                                                                                                                                                                                                                                                      |
| ▼ SAK-C167CR-L33M<br>HA+-Step               | SP000103460   | PG-MQFP-144-6 |                                                                                                                                                                                                                                                                                                                                                         |
| ▼ SAK-C167CR-L33M<br>HA+-Step               | SP000017993   | P-MQFP-144-6  | as SAK-C167CR-L33M, HA+-Step, tape & reel                                                                                                                                                                                                                                                                                                               |
| ▼ SAK-C167CR-L33M<br>HA+-Step               | SP000103461   | PG-MQFP-144-6 |                                                                                                                                                                                                                                                                                                                                                         |
| ▼ SAB-C167CR-16RM<br>HA+-Step               | SP000083849   | P-MQFP-144-6  | as SAB-C167CR-LM, 128-Kbyte ROM, tape & reel                                                                                                                                                                                                                                                                                                            |
| ▼ SAK-C167CR-16RM<br>HA+-Step               | SP000065652   | P-MQFP-144-6  | as SAB-C167CR-16RM, -40°C to 125°C, tape & reel                                                                                                                                                                                                                                                                                                         |

SMD = Surface Mounted Device

## Microcontrollers

| Type                                        | Ordering Code | Package       | Description                                                         |
|---------------------------------------------|---------------|---------------|---------------------------------------------------------------------|
| <b>Microcontrollers, 16-bit</b><br>(cont'd) |               |               |                                                                     |
| SAB-C167CS-LM<br>CA+-Step                   | SP000067513   | P-MQFP-144-6  | as SAB-C167CR-LM, two on-chip CAN-interfaces, tray                  |
| ▼ SAB-C167CS-LM<br>CA+-Step                 | SP000103483   | PG-MQFP-144-6 |                                                                     |
| SAB-C167CS-LM<br>CA+-Step                   | SP000017996   | P-MQFP-144-6  | as SAB-C167CS-LM, tape & reel                                       |
| ▼ SAB-C167CS-LM<br>CA+-Step                 | SP000103488   | PG-MQFP-144-6 |                                                                     |
| ▼ SAB-C167CS-LM<br>CA+-Step                 | SP000103484   | PG-MQFP-144-6 | as SAB-C167CS-LM, tape & reel                                       |
| SAF-C167CS-LM<br>CA+-Step                   | SP000018000   | P-MQFP-144-6  | as SAB-C167CS-LM, -40°C to 85°C, tray                               |
| ▼ SAF-C167CS-LM<br>CA+-Step                 | SP000103487   | PG-MQFP-144-6 |                                                                     |
| SAF-C167CS-LM<br>CA+-Step                   | SP000017992   | P-MQFP-144-6  | as SAF-C167CS-LM, tape & reel                                       |
| SAK-C167CS-LM<br>CA+-Step                   | SP000016750   | P-MQFP-144-6  | as SAB-C167CS-LM, -40°C to 125°C, tray                              |
| ▼ SAK-C167CS-LM<br>CA+-Step                 | SP000103492   | PG-MQFP-144-6 |                                                                     |
| SAK-C167CS-LM<br>CA+-Step                   | SP000016504   | P-MQFP-144-6  | as SAK-C167CS-LM, tape & reel                                       |
| ▼ SAK-C167CS-LM<br>CA+-Step                 | SP000103493   | PG-MQFP-144-6 |                                                                     |
| ▼ SAF-C167CS-L16M3V<br>CA+-Step             | SP000103469   | PG-MQFP-144-6 | as SAB-C167CS-LM, 16-MHz clock frequency, operating range 3 V, tray |
| SAF-C167CS-L16M3V<br>CA+-Step               | SP000017109   | P-MQFP-144-6  | as SAF-C167CS-L16M3V, tape & reel                                   |
| ▼ SAF-C167CS-L16M3V<br>CA+-Step             | SP000103470   | PG-MQFP-144-6 |                                                                     |
| ▼ SAF-C167CS-L33M<br>CA+-Step               | SP000016732   | P-MQFP-144-6  | as SAB-C167CS-LM, 33-MHz clock frequency, -40°C to 85°C, tray       |
| ▼ SAF-C167CS-L33M<br>CA+-Step               | SP000103485   | PG-MQFP-144-6 |                                                                     |
| ▼ SAF-C167CS-L33M<br>CA-Step                | SP000016731   | P-MQFP-144-6  | as SAF-C167CS-L33M, tape & reel                                     |
| ▼ SAF-C167CS-L33M<br>CA+-Step               | SP000103486   | PG-MQFP-144-6 |                                                                     |
| ▼ SAK-C167CS-L33M<br>CA+-Step               | SP000017988   | P-MQFP-144-6  | as SAF-C167CS-L33M, -40°C to 125°C, tape & reel                     |
| ▼ SAK-C167CS-L33M<br>CA+-Step               | SP000103489   | PG-MQFP-144-6 |                                                                     |
| ▼ SAB-C167CS-L40M<br>CA+-Step               | SP000017984   | P-MQFP-144-6  | as SAB-C167CS-LM, 40-MHz clock frequency, tray                      |
| ▼ SAB-C167CS-L40M<br>CA+-Step               | SP000103471   | PG-MQFP-144-6 |                                                                     |
| ▼ SAB-C167CS-L40M<br>CA+-Step               | SP000103468   | PG-MQFP-144-6 | as SAB-C167CS-LM, 40-MHz clock frequency, tape & reel               |
| SAK167CS-L40M<br>CA+-Step                   | SP000016752   | P-MQFP-144-6  | as SAB-C167CS-L40M, -40°C to 125°C, tray                            |
| ▼ SAK167CS-L40M<br>CA+-Step                 | SP000103490   | PG-MQFP-144-6 |                                                                     |
| SAK-C167CS-L40M<br>CA+-Step                 | SP000016751   | P-MQFP-144-6  | as SAK-C167CS-L40M, tape & reel                                     |
| ▼ SAK-C167CS-L40M<br>CA+-Step               | SP000103491   | PG-MQFP-144-6 |                                                                     |

SMD = Surface Mounted Device

## Microcontrollers

| Type                                        | Ordering Code | Package       | Description                                   |
|---------------------------------------------|---------------|---------------|-----------------------------------------------|
| <b>Microcontrollers, 16-bit</b><br>(cont'd) |               |               |                                               |
| SAB-C167SR-LM<br>HA+-Step                   | SP000017980   | P-MQFP-144-6  | as SAB-C167CR-LM, without CAN interface, tray |
| ▼ SAB-C167SR-LM<br>HA+-Step                 | SP000103456   | PG-MQFP-144-6 |                                               |
| SAB-C167SR-LM<br>HA+-Step                   | SP000017982   | P-MQFP-144-6  | as SAB-C167SR-LM, tape & reel                 |
| ▼ SAB-C167SR-LM<br>HA+-Step                 | SP000103457   | PG-MQFP-144-6 |                                               |
| SAK-C167SR-LM<br>HA+-Step                   | SP000017999   | P-MQFP-144-6  | as SAB-C167SR-LM, -40°C to 125°C, tray        |
| ▼ SAK-C167SR-LM<br>HA+-Step                 | SP000103458   | PG-MQFP-144-6 |                                               |
| SAK-C167SR-LM<br>HA+-Step                   | SP000016522   | P-MQFP-144-6  | as SAK-C167SR-LM, tape & reel                 |
| ▼ SAK-C167SR-LM<br>HA+-Step                 | SP000103459   | PG-MQFP-144-6 |                                               |

SMD = Surface Mounted Device

## Microcontrollers

| Type                                        | Ordering Code | Package        | Description                                                                                                                                                                                                                                                                            |
|---------------------------------------------|---------------|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Microcontrollers, 16-bit</b><br>(cont'd) |               |                |                                                                                                                                                                                                                                                                                        |
| ▼ SAF-XC167CI-16F20F<br>BB-Step             | SP000094528   | P-TQFP-144-19  | 128-Kbyte on-chip program memory (flash memory), 8-Kbyte on-chip RAM, programmable watchdog timer, oscillator watchdog, two 16-channel purpose capture/compare units, 16-channel 10-bit A/D converter, TwinCAN module, two Full-CAN nodes, 20-MHz clock frequency, -40°C to 85°C, tray |
| ▼ SAF-XC167CI-16F20F<br>BB-Step             | SP000224688   | PG-TQFP-144-19 |                                                                                                                                                                                                                                                                                        |
| ▼ SAF-XC167CI-16F20F<br>BB-Step             | SP000094527   | P-TQFP-144-19  | as SAF-XC167CI-8F20F, tape & reel                                                                                                                                                                                                                                                      |
| ▼ SAF-XC167CI-16F20F<br>BB-Step             | SP000224687   | PG-TQFP-144-19 |                                                                                                                                                                                                                                                                                        |
| ▼ SAK-XC167CI-16F20F<br>BB-Step             | SP000224692   | PG-TQFP-144-19 | as SAF-XC167CI-16F-20F, -40°C to 125°C, tray                                                                                                                                                                                                                                           |
| ▼ SAK-XC167CI-16F20F<br>BB-Step             | SP000094531   | P-TQFP-144-19  | as SAK-XC167CI-16F-20F, tape & reel                                                                                                                                                                                                                                                    |
| ▼ SAK-XC167CI-16F20F<br>BB-Step             | SP000224691   | PG-TQFP-144-19 |                                                                                                                                                                                                                                                                                        |
| ▼ SAF-XC167CI-16F40F<br>BB-Step             | SP000094530   | P-TQFP-144-19  | as SAF-XC167CI-16F20F, 40-MHz clock frequency, tray                                                                                                                                                                                                                                    |
| ▼ SAF-XC167CI-16F40F<br>BB-Step             | SP000224690   | PG-TQFP-144-19 |                                                                                                                                                                                                                                                                                        |
| ▼ SAF-XC167CI-16F40F<br>BB-Step             | SP000094529   | P-TQFP-144-19  | as SAF-XC167CI-16F40F, tape & reel                                                                                                                                                                                                                                                     |
| ▼ SAF-XC167CI-16F40F<br>BB-Step             | SP000224689   | PG-TQFP-144-19 |                                                                                                                                                                                                                                                                                        |
| ▼ SAK-XC167CI-16F40F<br>BB-Step             | SP000095456   | P-TQFP-144-19  | as SAF-XC167CI-16F40F, -40°C to 125°C, tray                                                                                                                                                                                                                                            |
| ▼ SAK-XC167CI-16F40F<br>BB-Step             | SP000224695   | PG-TQFP-144-19 |                                                                                                                                                                                                                                                                                        |
| ▼ SAK-XC167CI-16F40F<br>BB-Step             | SP000095455   | P-TQFP-144-19  | as SAK-XC167CI-16F40F, tape & reel                                                                                                                                                                                                                                                     |
| ▼ SAK-XC167CI-16F40F<br>BB-Step             | SP000224694   | PG-TQFP-144-19 |                                                                                                                                                                                                                                                                                        |
| ▼ SAF-XC167CI-32F20F<br>BB-A-Step           | SP000224701   | PG-TQFP-144-19 | as SAF-XC167CI-16F20F, 256-Kbytes on-chip program memory (flash memory), 12-Kbyte RAM, tray                                                                                                                                                                                            |
| ▼ SAF-XC167CI-32F20F<br>BB-A-Step           | SP000098776   | P-TQFP-144-19  | as SAF-XC167CI-32F20F, tape & reel                                                                                                                                                                                                                                                     |
| ▼ SAF-XC167CI-32F20F<br>BB-A-Step           | SP000224700   | PG-TQFP-144-19 |                                                                                                                                                                                                                                                                                        |
| ▼ SAK-XC167CI-32F20F<br>BB-A-Step           | SP000224705   | PG-TQFP-144-19 | as SAF-XC167CI-32F20F, -40°C to 125°C, tray                                                                                                                                                                                                                                            |
| ▼ SAK-XC167CI-32F20F<br>BB-A-Step           | SP000098777   | P-TQFP-144-19  | as SAK-XC167CI-32F20F, tape & reel                                                                                                                                                                                                                                                     |
| ▼ SAK-XC167CI-32F20F<br>BB-A-Step           | SP000224704   | PG-TQFP-144-19 |                                                                                                                                                                                                                                                                                        |
| ▼ SAF-XC167CI-32F40F<br>BB-A-Step           | SP000224703   | PG-TQFP-144-19 | as SAF-XC167CI-32F20F, 40-MHz clock frequency, tray                                                                                                                                                                                                                                    |
| ▼ SAF-XC167CI-32F40F<br>BB-A-Step           | SP000104964   | P-TQFP-144-19  | as SAF-XC167CI-32F40F, tape & reel                                                                                                                                                                                                                                                     |
| ▼ SAF-XC167CI-32F40F<br>BB-A-Step           | SP000224702   | PG-TQFP-144-19 |                                                                                                                                                                                                                                                                                        |
| ▼ SAK-XC167CI-32F40F<br>BB-A-Step           | SP000224707   | PG-TQFP-144-19 | as SAF-XC167CI-32F40F, -40°C to 125°C, tray                                                                                                                                                                                                                                            |
| ▼ SAK-XC167CI-32F40F<br>BB-A-Step           | SP000098778   | P-TQFP-144-19  | as SAK-XC167CI-32F40F, tape & reel                                                                                                                                                                                                                                                     |
| ▼ SAK-XC167CI-32F40F<br>BB-A-Step           | SP000224706   | PG-TQFP-144-19 |                                                                                                                                                                                                                                                                                        |

SMD = Surface Mounted Device

## Microcontrollers

| Type                           | Ordering Code | Package       | Description                                                                                                                                                                                                                                                                                                  |
|--------------------------------|---------------|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Microcontrollers, 8-bit</b> |               |               |                                                                                                                                                                                                                                                                                                              |
| ▼ SAF-C505CA-LM CA-Step        | SP000106636   | P-MQFP-44-2   | ROMless, 256-byte on-chip RAM, 1-Kbyte XRAM, oscillator watchdog, watchdog timer, full CAN-controller (V 2.0 B active), 10-bit ADC, three 16-bit timers/counters, 20-MHz clock frequency, tray                                                                                                               |
| ▼ SAF-C505CA-LM CA-Step        | SP000106669   | PG-MQFP-44-2  |                                                                                                                                                                                                                                                                                                              |
| ▼ SAF-C505CA-LM CA-Step        | SP000014488   | P-MQFP-44-2   | as SAF-C505CA-LM, tape & reel                                                                                                                                                                                                                                                                                |
| ▼ SAF-C505CA-LM CA-Step        | SP000106390   | PG-MQFP-44-2  |                                                                                                                                                                                                                                                                                                              |
| ▼ SAB-C505CA-4EM CA-Step       | SP000068757   | P-MQFP-44-2   | as SAF-C505CA-LM, 32-Kbyte OTP memory, 0°C to 70°C, tray                                                                                                                                                                                                                                                     |
| ▼ SAB-C505CA-4EM CA-Step       | SP000106391   | PG-MQFP-44-2  |                                                                                                                                                                                                                                                                                                              |
| ▼ SAB-C505CA-4EM CA-Step       | SP000068755   | P-MQFP-44-2   | as SAB-C505CA-4EM, tape & reel                                                                                                                                                                                                                                                                               |
| ▼ SAB-C505CA-4EM CA-Step       | SP000106392   | PG-MQFP-44-2  |                                                                                                                                                                                                                                                                                                              |
| ▼ SAF-C505CA-4EM CA-Step       | SP000068758   | P-MQFP-44-2   | as SAB-C505CA-4 EM, –40°C to 85°C, tray                                                                                                                                                                                                                                                                      |
| ▼ SAF-C505CA-4EM CA-Step       | SP000106394   | PG-MQFP-44-2  |                                                                                                                                                                                                                                                                                                              |
| ▼ SAF-C505CA-4EM CA-Step       | SP000068759   | P-MQFP-44-2   | as SAF-C505CA-4EM, tape & reel                                                                                                                                                                                                                                                                               |
| ▼ SAF-C505CA-4EM CA-Step       | SP000106395   | PG-MQFP-44-2  |                                                                                                                                                                                                                                                                                                              |
| ▼ SAK-C505CA-4EM CA-Step       | SP000068754   | P-MQFP-44-2   | as SAF-C505CA-4EM, –40°C to 125°C, tray                                                                                                                                                                                                                                                                      |
| ▼ SAK-C505CA-4EM CA-Step       | SP000106396   | PG-MQFP-44-2  |                                                                                                                                                                                                                                                                                                              |
| ▼ SAK-C505CA-4EM CA-Step       | SP000067377   | P-MQFP-44-2   | as SAK-C505CA-4EM, tape & reel                                                                                                                                                                                                                                                                               |
| ▼ SAK-C505CA-4EM CA-Step       | SP000107542   | PG-MQFP-44-2  |                                                                                                                                                                                                                                                                                                              |
| ▼ SAF-C505CA-4RM CA-Step       | SP000065658   | P-MQFP-44-2   | as SAB-C505CA-4EM, with 32-Kbyte maskprogrammable ROM, tray                                                                                                                                                                                                                                                  |
| SAF-C505CA-4RM CA-Step         | SP000084302   | P-MQFP-44-2   | as SAF-C505CA-4RM, tape & reel                                                                                                                                                                                                                                                                               |
| ▼ SAK-C505CA-4RM CA-Step       | SP000084304   | P-MQFP-44-2   | as SAF-C505CA-4RM, –40°C to 125°C, tape & reel                                                                                                                                                                                                                                                               |
| ▼ SAF-C515C-8EM CA-Step        | SP000068750   | P-MQFP-80-1   | 64-Kbyte OTP memory, 256 x 8-bit RAM, additional 2K x 8-bit on-chip RAM, three 16-bit timer/counters, power saving modes, 10-bit A/D converter, programmable watchdog timer, oscillator watchdog, 10-MHz CPU clock frequency, for external memory, full CAN-controller (V 2.0 B active); –40°C to 85°C, tray |
| ▼ SAF-C515C-8EM CA-Step        | SP000106398   | PG-MQFP-80-1  |                                                                                                                                                                                                                                                                                                              |
| ▼ SAF-C515C-8EM CA-Step        | SP000067378   | P-MQFP-80-1   | as SAF-C515C-8EM, tape & reel                                                                                                                                                                                                                                                                                |
| ▼ SAF-C515C-8EM CA-Step        | SP000106400   | PG-MQFP-80-1  |                                                                                                                                                                                                                                                                                                              |
| SAF-C868-1SG BA-Step           | SP000013636   | P-DSO-28-1    | 8-Kbyte on-chip program SRAM, 256-byte RAM, 256-byte XRAM, three 16-bit timers/counters, PWM unit (CAPCOM6E), 8-bit ADC, oscillator watchdog, watchdog timer, 40-MHz clock frequency, –40°C to 85°C, tape & reel                                                                                             |
| SAK-C868-1SG BA-Step           | SP000014356   | P-DSO-28-1    | as SAF-C868-1SG, –40°C to 125°C, tape & reel                                                                                                                                                                                                                                                                 |
| ▼ SAF-C868-1SR BA-Step         | SP000013637   | PG-TSSOP-38-1 | as SAF-C868-1SG, P-TSSOP package, tape & reel                                                                                                                                                                                                                                                                |
| SAK-C868-1SR BA-Step           | SP000014357   | PG-TSSOP-38-1 | as SAF-C868-1SR, –40°C to 125°C, tape & reel                                                                                                                                                                                                                                                                 |
| SAF-C868P-1SR BA-Step          | SP000013638   | PG-TSSOP-38-1 | as SAF-C868-1SR, with Code Protection, tape & reel                                                                                                                                                                                                                                                           |
| SAK-C868P-1SR BA-Step          | SP000014358   | PG-TSSOP-38-1 | as SAF-C868P-1SR, –40°C to 125°C, tape & reel                                                                                                                                                                                                                                                                |

SMD = Surface Mounted Device

## Microcontrollers

| Type                                       | Ordering Code | Package       | Description                                                                                                                                                                                                                                                                                                                                                                              |
|--------------------------------------------|---------------|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Microcontrollers, 8-bit</b><br>(cont'd) |               |               |                                                                                                                                                                                                                                                                                                                                                                                          |
| ▼ SAF-XC866-2FRI<br>(industry) BC-Step     | SP000210683   | PG-TSSOP-38-1 | High performance XC800 core, based on industry standard 8051 architecture, 8-Kbyte boot ROM, 8-Kbyte flash (4-Kbyte program flash, 4-Kbyte data flash), automotive quality level, 256-byte RAM, 512-byte XRAM, capture compare unit, three 16-bit timers/counters, 10-bit ADC, port- and core voltage watchdog circuit with RESET generation, watchdog timer, –40°C to 85°C, tape & reel |
| SAF-XC866-4FRI<br>(industry) BC-Step       | SP000057470   | PG-TSSOP-38-1 | as SAF-XC866-2FRA, 16-Kbyte flash (12-Kbyte program flash, 4-Kbyte data flash), industry quality level, tape & reel                                                                                                                                                                                                                                                                      |
| ▼ SAK-XC866-4FRI<br>(industry) BC-Step     | SP000210680   | PG-TSSOP-38-1 | as SAF-XC866-4FRI, –40°C to 125°C, tape & reel                                                                                                                                                                                                                                                                                                                                           |
| ▼ SAF-XC886-6FFA<br>(automotive)           | SP000210975   | PG-TQFP-48-4  | High performance XC800 core, based on industry standard 8051 architecture, 24-Kbyte flash memory, automotive quality level, 256-byte RAM, 1536-byte XRAM, capture/compare unit (CCU6), 16-bit timers/counters, 10-bit ADC, port- and core voltage watchdog circuit with RESET generation, watchdog timer, on-chip debug support (JTAG), –40°C to 85°C, tape & reel                       |
| ▼ SAK-XC886-6FFA<br>(automotive)           | SP000210978   | PG-TQFP-48-4  | as SAF-XC886-6FFA, –40°C to 125°C, tape & reel                                                                                                                                                                                                                                                                                                                                           |
| ▼ SAF-XC886-6FFI<br>(industry)             | SP000216467   | PG-TQFP-48-4  | as SAF-XC886-6FFA, industry quality level, tape & reel                                                                                                                                                                                                                                                                                                                                   |
| ▼ SAF-XC886-6FFI<br>(industry) AB-Step     | SP000217345   | PG-TQFP-48-4  | as SAF-XC886-6FFI, AB-step, tape & reel                                                                                                                                                                                                                                                                                                                                                  |
| ▼ SAF-XC886-8FFA<br>(automotive)           | SP000210968   | PG-TQFP-48-4  | High performance XC800 core, based on industry standard 8051 architecture, 32-Kbyte flash memory, automotive quality level, 256-byte RAM, 1536-byte XRAM, capture/compare unit (CCU6), 16-bit timers/counters, 10-bit ADC, port- and core voltage watchdog circuit with RESET generation, watchdog timer, on-chip debug support (JTAG), –40°C to 85°C, tape & reel                       |
| ▼ SAK-XC886-8FFA<br>(automotive)           | SP000210971   | PG-TQFP-48-4  | as SAF-XC886-8FFA, –40°C to 125°C, tape & reel                                                                                                                                                                                                                                                                                                                                           |
| ▼ SAF-XC886-8FFI<br>(industry)             | SP000216470   | PG-TQFP-48-4  | as SAF-XC886-8FFA, industry quality level, tape & reel                                                                                                                                                                                                                                                                                                                                   |
| ▼ SAF-XC886-8FFI<br>(industry) AB-Step     | SP000217349   | PG-TQFP-48-4  | as SAF-XC886-8FFI, AB-step, tape & reel                                                                                                                                                                                                                                                                                                                                                  |

SMD = Surface Mounted Device

## Microcontrollers

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| Type                                       | Ordering Code | Package      | Description                                                                                                                                                                                                                                                                                                                                                                                          |
|--------------------------------------------|---------------|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Microcontrollers, 8-bit</b><br>(cont'd) |               |              |                                                                                                                                                                                                                                                                                                                                                                                                      |
| ▼ SAF-XC886C-8FFA<br>(automotive)          | SP000210961   | PG-TQFP-48-4 | High performance XC800 core, based on industry standard 8051 architecture, 32-Kbyte flash memory, automotive quality level, 256-byte RAM, 1536-byte XRAM, MultiCAN with 2 nodes, capture/compare unit (CCU6), 16-bit timers/counters, 10-bit ADC, port- and core voltage watchdog circuit with RESET generation, watchdog timer, on-chip debug support (JTAG), –40°C to 85°C, tape & reel            |
| ▼ SAK-XC886C-8FFA<br>(automotive)          | SP000106749   | PG-TQFP-48-4 | as SAF-XC886C-8FFA, –40°C to 125°C, tape & reel                                                                                                                                                                                                                                                                                                                                                      |
| ▼ SAF-XC886C-8FFI<br>(industry)            | SP000216464   | PG-TQFP-48-4 | as SAF-XC886C-8FFA, industry quality level, tape & reel                                                                                                                                                                                                                                                                                                                                              |
| ▼ SAF-XC886C-8FFI<br>(industry) AB-Step    | SP000217340   | PG-TQFP-48-4 | as SAF-XC886C-8FFI, AB-step, tape & reel                                                                                                                                                                                                                                                                                                                                                             |
| ▼ SAF-XC886CLM-8FFA<br>(automotive)        | SP000106748   | PG-TQFP-48-4 | as SAF-XC886C-8FFA, with LIN BSL support, MDU module, tape & reel                                                                                                                                                                                                                                                                                                                                    |
| ▼ SAK-XC886CLM-8FFA<br>(automotive)        | SP000210964   | PG-TQFP-48-4 | as SAF-XC886CLM-8FFA, –40°C to 125°C, tape & reel                                                                                                                                                                                                                                                                                                                                                    |
| ▼ SAF-XC886CLM-8FFI<br>(industry)          | SP000216465   | PG-TQFP-48-4 | as SAF-XC886CLM-8FFA, industry quality level, tape & reel                                                                                                                                                                                                                                                                                                                                            |
| ▼ SAF-XC886CLM-8FFI<br>(industry) AB-Step  | SP000217341   | PG-TQFP-48-4 | as SAF-XC886CLM-8FFI, AB-step, tape & reel                                                                                                                                                                                                                                                                                                                                                           |
| ▼ SAF-XC886CM-8FFA<br>(automotive)         | SP000210962   | PG-TQFP-48-4 | as SAF-XC886C-8FFA, with MDU, tape & reel                                                                                                                                                                                                                                                                                                                                                            |
| ▼ SAK-XC886CM-8FFA<br>(automotive)         | SP000210965   | PG-TQFP-48-4 | as SAF-XC886CM-8FFA, –40°C to 125°C, tape & reel                                                                                                                                                                                                                                                                                                                                                     |
| ▼ SAF-XC886CM-8FFI<br>(industry)           | SP000216466   | PG-TQFP-48-4 | as SAF-XC886CM-8FFA, industry quality level, tape & reel                                                                                                                                                                                                                                                                                                                                             |
| ▼ SAF-XC886CM-8FFI<br>(industry) AB-Step   | SP000217342   | PG-TQFP-48-4 | as SAF-XC886CM-8FFI, AB-step, tape & reel                                                                                                                                                                                                                                                                                                                                                            |
| ▼ SAF-XC886LM-6FFA<br>(automotive)         | SP000210974   | PG-TQFP-48-4 | High performance XC800 core, based on industry standard 8051 architecture, 24-Kbyte flash memory, automotive quality level, 256-byte RAM, 1536-byte XRAM, capture/compare unit (CCU6), 16-bit timers/counters, 10-bit ADC, port- and core voltage watchdog circuit with RESET generation, watchdog timer, on-chip debug support (JTAG), with LIN BSL support, MDU module, –40°C to 85°C, tape & reel |
| ▼ SAK-XC886LM-6FFA<br>(automotive)         | SP000210977   | PG-TQFP-48-4 | as SAF-XC886LM-6FFA, –40°C to 125°C, tape & reel                                                                                                                                                                                                                                                                                                                                                     |
| ▼ SAF-XC886LM-6FFI<br>(industry)           | SP000216468   | PG-TQFP-48-4 | as SAF-XC886LM-6FFA, industry quality level, tape & reel                                                                                                                                                                                                                                                                                                                                             |
| ▼ SAF-XC886LM-6FFI<br>(industry) AB-Step   | SP000217347   | PG-TQFP-48-4 | as SAF-XC886LM-6FFI, AB-step, tape & reel                                                                                                                                                                                                                                                                                                                                                            |
| ▼ SAF-XC886LM-8FFA<br>(automotive)         | SP000210967   | PG-TQFP-48-4 | as SAF-XC886LM-6FFA, 32-Kbyte flash memory, tape & reel                                                                                                                                                                                                                                                                                                                                              |
| ▼ SAK-XC886LM-8FFA<br>(automotive)         | SP000210970   | PG-TQFP-48-4 | as SAF-XC886LM-8FFA, –40°C to 125°C, tape & reel                                                                                                                                                                                                                                                                                                                                                     |
| ▼ SAF-XC886LM-8FFI<br>(industry)           | SP000216471   | PG-TQFP-48-4 | as SAF-XC886LM-8FFA, industry quality level, tape & reel                                                                                                                                                                                                                                                                                                                                             |
| ▼ SAF-XC886LM-8FFI<br>(industry) AB-Step   | SP000217348   | PG-TQFP-48-4 | as SAF-XC886LM-8FFI, AB-step, tape & reel                                                                                                                                                                                                                                                                                                                                                            |

SMD = Surface Mounted Device

## Microcontrollers

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| Type                                       | Ordering Code | Package      | Description                                                                                                                                                                                                                                                                                                                                                                                          |
|--------------------------------------------|---------------|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Microcontrollers, 8-bit</b><br>(cont'd) |               |              |                                                                                                                                                                                                                                                                                                                                                                                                      |
| ▼ SAF-XC888-6FFA<br>(automotive)           | SP000210989   | PG-TQFP-64-8 | High performance XC800 core, based on industry standard 8051 architecture, 24-Kbyte flash memory, automotive quality level, 256-byte RAM, 1536-byte XRAM, capture/compare unit (CCU6), 16-bit timers/counters, 10-bit ADC, port- and core voltage watchdog circuit with RESET generation, watchdog timer, on-chip debug support (JTAG), -40°C to 85°C, tape & reel                                   |
| ▼ SAK-XC888-6FFA<br>(automotive)           | SP000210995   | PG-TQFP-64-8 | as SAF-XC888-6FFA, -40°C to 125°C, tape & reel                                                                                                                                                                                                                                                                                                                                                       |
| ▼ SAF-XC888-6FFI<br>(industry)             | SP000216477   | PG-TQFP-64-8 | as SAF-XC888-6FFA, industry quality level, tape & reel                                                                                                                                                                                                                                                                                                                                               |
| ▼ SAF-XC888-8FFA<br>(automotive)           | SP000210986   | PG-TQFP-64-8 | as SAF-XC888-6FFA, 32-Kbyte flash memory, tape & reel                                                                                                                                                                                                                                                                                                                                                |
| ▼ SAK-XC888-8FFA<br>(automotive)           | SP000210992   | PG-TQFP-64-8 | as SAF-XC888-8FFA, -40°C to 125°C, tape & reel                                                                                                                                                                                                                                                                                                                                                       |
| ▼ SAF-XC888-8FFI<br>(industry)             | SP000216479   | PG-TQFP-64-8 | as SAF-XC888-8FFA, industry quality level, tape & reel                                                                                                                                                                                                                                                                                                                                               |
| ▼ SAF-XC888C-8FFA<br>(automotive)          | SP000210980   | PG-TQFP-64-8 | High performance XC800 core, based on industry standard 8051 architecture, 32-Kbyte flash memory, automotive quality level, 256-byte RAM, 1536-byte XRAM, MultiCAN with 2 nodes, capture/compare unit (CCU6), 16-bit timers/counters, 10-bit ADC, port- and core voltage watchdog circuit with RESET generation, watchdog timer, on-chip debug support (JTAG), -40°C to 85°C, tape & reel            |
| ▼ SAK-XC888C-8FFA<br>(automotive)          | SP000098771   | PG-TQFP-64-8 | as SAF-XC888C-8FFA, -40°C to 125°C, tape & reel                                                                                                                                                                                                                                                                                                                                                      |
| ▼ SAF-XC888C-8FFI<br>(industry)            | SP000216474   | PG-TQFP-64-8 | as SAF-XC888C-8FFA, industry quality level, tape & reel                                                                                                                                                                                                                                                                                                                                              |
| ▼ SAF-XC888CLM-8FFA<br>(automotive)        | SP000210979   | PG-TQFP-64-8 | as SAF-XC888C-8FFA, with LIN BSL support, MDU module, tape & reel                                                                                                                                                                                                                                                                                                                                    |
| ▼ SAK-XC888CLM-8FFA<br>(automotive)        | SP000210982   | PG-TQFP-64-8 | as SAF-XC888CLM-8FFA, -40°C to 125°C, tape & reel                                                                                                                                                                                                                                                                                                                                                    |
| ▼ SAF-XC888CLM-8FFI<br>(industry)          | SP000216475   | PG-TQFP-64-8 | as SAF-XC888CLM-8FFA, industry quality level, tape & reel                                                                                                                                                                                                                                                                                                                                            |
| ▼ SAF-XC888CM-8FFA<br>(automotive)         | SP000210981   | PG-TQFP-64-8 | as SAF-XC888C-8FFA, with MDU, tape & reel                                                                                                                                                                                                                                                                                                                                                            |
| ▼ SAK-XC888CM-8FFA<br>(automotive)         | SP000210983   | PG-TQFP-64-8 | as SAF-XC888CM-8FFA, -40°C to 125°C, tape & reel                                                                                                                                                                                                                                                                                                                                                     |
| ▼ SAF-XC888CM-8FFI<br>(industry)           | SP000216476   | PG-TQFP-64-8 | as SAF-XC888CM-8FFA, industry quality level, tape & reel                                                                                                                                                                                                                                                                                                                                             |
| ▼ SAF-XC888LM-6FFA<br>(automotive)         | SP000210988   | PG-TQFP-64-8 | High performance XC800 core, based on industry standard 8051 architecture, 24-Kbyte flash memory, automotive quality level, 256-byte RAM, 1536-byte XRAM, capture/compare unit (CCU6), 16-bit timers/counters, 10-bit ADC, port- and core voltage watchdog circuit with RESET generation, watchdog timer, on-chip debug support (JTAG), with LIN BSL support, MDU module, -40°C to 85°C, tape & reel |
| ▼ SAK-XC888LM-6FFA<br>(automotive)         | SP000210994   | PG-TQFP-64-8 | as SAF-XC888LM-6FFA, -40°C to 125°C, tape & reel                                                                                                                                                                                                                                                                                                                                                     |
| ▼ SAF-XC888LM-6FFI<br>(industry)           | SP000216478   | PG-TQFP-64-8 | as SAF-XC888LM-6FFA, industry quality level, tape & reel                                                                                                                                                                                                                                                                                                                                             |
| ▼ SAF-XC888LM-8FFA<br>(automotive)         | SP000210985   | PG-TQFP-64-8 | High performance XC800 core, based on industry standard 8051 architecture, 32-Kbyte flash memory, automotive quality level, 256-byte RAM, 1536-byte XRAM, capture/compare unit (CCU6), 16-bit timers/counters, 10-bit ADC, port- and core voltage watchdog circuit with RESET generation, watchdog timer, on-chip debug support (JTAG), with LIN BSL support, MDU module, -40°C to 85°C, tape & reel |
| ▼ SAK-XC888LM-8FFA<br>(automotive)         | SP000210991   | PG-TQFP-64-8 | as SAF-XC888LM-8FFA, -40°C to 125°C, tape & reel                                                                                                                                                                                                                                                                                                                                                     |
| ▼ SAF-XC888LM-8FFI<br>(industry)           | SP000216480   | PG-TQFP-64-8 | as SAF-XC888LM-8FFA, industry quality level, tape & reel                                                                                                                                                                                                                                                                                                                                             |

SMD = Surface Mounted Device

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## Power Semiconductors

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| Type | Ordering Code | Package | Data     |              |              |       |
|------|---------------|---------|----------|--------------|--------------|-------|
|      |               |         | $V_{DS}$ | $R_{DS(on)}$ | $V_{GS(th)}$ | $I_D$ |
|      |               |         | V        | $\Omega$     | V            | A     |

## Power Transistors

### N-Channel Enhancement Types (SIPMOS®)

#### Low Voltage MOSFETs 50 V

|             |             |        |    |        |             |      |
|-------------|-------------|--------|----|--------|-------------|------|
| BSP 295     | SP000011105 | SOT223 | 50 | 0.3000 | 0.8 ... 2.0 | 1.80 |
| ▼ BSP 295 G | SP000089210 | SOT223 | 50 | 0.3000 | 0.8 ... 2.0 | 1.80 |

### N-Channel Enhancement Types (SIPMOS®)

#### Low Voltage MOSFETs 55 V

|                 |             |             |    |        |             |    |
|-----------------|-------------|-------------|----|--------|-------------|----|
| ▼ SPB 80N06S-08 | SP000054056 | P-TO263-3-2 | 55 | 0.0077 | 2.1 ... 4.0 | 80 |
| ▼ SPI 80N06S-08 | SP000054055 | P-TO262-3-1 | 55 | 0.0077 | 2.1 ... 4.0 | 80 |

### N-Channel Enhancement Types (SIPMOS®)

#### Low Voltage MOSFETs 60 V

|                     |             |            |    |        |             |      |
|---------------------|-------------|------------|----|--------|-------------|------|
| BSO 615N            | SP000011097 | P-DSO-8-5  | 60 | 0.1500 | 1.2 ... 2.0 | 2.60 |
| ▼ BSO 615N G        | SP000216316 | PG-DSO-8-5 | 60 | 0.1500 | 1.2 ... 2.0 | 2.60 |
| BSP 318S            | SP000011112 | SOT23      | 60 | 0.1500 | 1.2 ... 2.0 | 2.60 |
| ▼ BSP 318S G        | SP000235371 | SOT23      | 60 | 0.1500 | 1.2 ... 2.0 | 2.60 |
| BSP 320S E-6327     | SP000011115 | SOT23      | 60 | 0.1200 | 2.1 ... 4.0 | 2.90 |
| ▼ BSP 320S E-6433   | SP000011116 | SOT23      | 60 | 0.1200 | 2.1 ... 4.0 | 2.90 |
| BSP 320S G E-6327   | SP000235375 | SOT23      | 60 | 0.1200 | 2.1 ... 4.0 | 2.90 |
| ▼ BSP 320S G E-6433 | SP000235376 | SOT23      | 60 | 0.1200 | 2.1 ... 4.0 | 2.90 |
| BSS 138N E-6327     | SP000014560 | SOT23      | 60 | 3.5000 | 0.6 ... 1.4 | 0.23 |
| ▼ BSS 138N G E-6327 | SP000074207 | SOT23      | 60 | 3.5000 | 0.6 ... 1.4 | 0.23 |
| BSS 138N E-6433     | SP000014561 | SOT23      | 60 | 3.5000 | 0.6 ... 1.4 | 0.23 |
| ▼ BSS 138N E-6908   | SP000014564 | SOT23      | 60 | 3.5000 | 0.6 ... 1.4 | 0.23 |
| ▼ BSS 138N E-7854   | SP000014562 | SOT23      | 60 | 3.5000 | 0.6 ... 1.4 | 0.23 |
| ▼ BSS 138N E-8004   | SP000014563 | SOT23      | 60 | 3.5000 | 0.6 ... 1.4 | 0.23 |
| BSS 138W E-6327     | SP000014283 | SOT323     | 60 | 3.5000 | 0.6 ... 1.4 | 0.28 |
| ▼ BSS 138W E-6433   | SP000014284 | SOT323     | 60 | 3.5000 | 0.6 ... 1.4 | 0.28 |
| BSS 7728N           | SP000014637 | SOT23      | 60 | 5.0000 | 1.3 ... 2.3 | 0.20 |
| SN 7002N E-6327     | SP000014634 | SOT23      | 60 | 5.0000 | 0.8 ... 1.8 | 0.20 |
| SN 7002N E-6433     | SP000014635 | SOT23      | 60 | 5.0000 | 0.8 ... 1.8 | 0.20 |
| ▼ SN 7002N G E-6327 | SP000074235 | SOT23      | 60 | 5.0000 | 0.8 ... 1.8 | 0.20 |
| ▼ SN 7002N G E-6433 | SP000076522 | SOT23      | 60 | 5.0000 | 0.8 ... 1.8 | 0.20 |
| SN 7002W E-6327     | SP000014285 | SOT323     | 60 | 5.0000 | 0.8 ... 1.8 | 0.23 |
| ▼ SN 7002W E-6433   | SP000014286 | SOT323     | 60 | 5.0000 | 0.8 ... 1.8 | 0.23 |

### N-Channel Enhancement Types (SIPMOS®)

#### Low Voltage MOSFETs 100 V

|                    |             |        |     |       |             |      |
|--------------------|-------------|--------|-----|-------|-------------|------|
| BSP 123            | SP000011099 | SOT223 | 100 | 6.000 | 0.8 ... 2.0 | 0.38 |
| ▼ BSP 123 G        | SP000089202 | SOT223 | 100 | 6.000 | 0.8 ... 2.0 | 0.38 |
| BSP 296 G E-6327   | SP000011106 | SOT223 | 100 | 0.800 | 0.8 ... 2.0 | 1.00 |
| ▼ BSP 296 E-6433   | SP000011107 | SOT223 | 100 | 0.800 | 0.8 ... 2.0 | 1.00 |
| ▼ BSP 296 G E-6327 | SP000089209 | SOT223 | 100 | 0.800 | 0.8 ... 2.0 | 1.00 |
| ▼ BSP 296 G E-6433 | SP000089212 | SOT223 | 100 | 0.800 | 0.8 ... 2.0 | 1.00 |
| BSP 372            | SP000011120 | SOT223 | 100 | 0.310 | 0.8 ... 2.0 | 1.70 |
| ▼ BSP 372 G        | SP000087064 | SOT223 | 100 | 0.310 | 0.8 ... 2.0 | 1.70 |

SMD = Surface Mounted Device

| Type | Ordering Code | Package | Data     |              |              |       |
|------|---------------|---------|----------|--------------|--------------|-------|
|      |               |         | $V_{DS}$ | $R_{DS(on)}$ | $V_{GS(th)}$ | $I_D$ |
|      |               |         | V        | $\Omega$     | V            | A     |

## Power Transistors

### N-Channel Enhancement Types (SIPMOS®)

#### Low Voltage MOSFETs 100 V

(cont'd)

|                    |             |              |     |       |             |      |
|--------------------|-------------|--------------|-----|-------|-------------|------|
| BSP 373            | SP000011121 | SOT223       | 100 | 0.300 | 2.1 ... 4.0 | 1.70 |
| ▼ BSP 373 G        | SP000087065 | SOT223       | 100 | 0.300 | 2.1 ... 4.0 | 1.70 |
| BSS 119 E -6327    | SP000011161 | SOT23        | 100 | 6.000 | 1.6 ... 2.6 | 0.17 |
| ▼ BSS 119 E-6433   | SP000011164 | SOT23        | 100 | 6.000 | 1.6 ... 2.6 | 0.17 |
| ▼ BSS 119 E-7796   | SP000011162 | SOT23        | 100 | 6.000 | 1.6 ... 2.6 | 0.17 |
| ▼ BSS 119 E-7978   | SP000011163 | SOT23        | 100 | 6.000 | 1.6 ... 2.6 | 0.17 |
| BSS 123 E-6327     | SP000011165 | SOT23        | 100 | 6.000 | 0.8 ... 2.0 | 0.17 |
| ▼ BSS 123 G E-6327 | SP000084574 | SOT23        | 100 | 6.000 | 0.8 ... 2.0 | 0.17 |
| ▼ BSS 123 E-6433   | SP000011166 | SOT23        | 100 | 6.000 | 0.8 ... 2.0 | 0.17 |
| ▼ BSS 123 E-7874   | SP000011167 | SOT23        | 100 | 6.000 | 0.8 ... 2.0 | 0.17 |
| ■ BUZ 344          | SP000011354 | P-TO218-3-1  | 100 | 0.035 | 2.1 ... 4.0 | 46   |
| ■ BUZ 345          | SP000011355 | P-TO218-3-1  | 100 | 0.045 | 2.1 ... 4.0 | 41   |
| ■ BUZ 349          | SP000011356 | P-TO218-3-1  | 100 | 0.060 | 2.1 ... 4.0 | 32   |
| SPB 10N10          | SP000013845 | P-TO263-3-2  | 100 | 0.170 | 2.1 ... 4.0 | 10.3 |
| ▼ SPB 10N10 G      | SP000102170 | PG-TO263-3-2 | 100 | 0.170 | 2.1 ... 4.0 | 10.3 |
| SPB 10N10L         | SP000013836 | P-TO263-3-2  | 100 | 0.154 | 1.2 ... 2.0 | 10.3 |
| ▼ SPB 10N10L G     | SP000102169 | PG-TO263-3-2 | 100 | 0.154 | 1.2 ... 2.0 | 10.3 |
| SPB 21N10          | SP000013626 | P-TO263-3-2  | 100 | 0.080 | 2.1 ... 4.0 | 21   |
| ▼ SPB 21N10 G      | SP000102171 | PG-TO263-3-2 | 100 | 0.080 | 2.1 ... 4.0 | 21   |
| SPB 35N10          | SP000013627 | P-TO263-3-2  | 100 | 0.044 | 2.1 ... 4.0 | 35   |
| ▼ SPB 35N10 G      | SP000102172 | PG-TO263-3-2 | 100 | 0.044 | 2.1 ... 4.0 | 35   |
| SPB 47N10          | SP000012327 | P-TO263-3-2  | 100 | 0.033 | 2.1 ... 4.0 | 47   |
| SPB 47N10L         | SP000012078 | P-TO263-3-2  | 100 | 0.026 | 1.2 ... 2.0 | 47   |
| SPB 70N10L         | SP000012079 | P-TO263-3-2  | 100 | 0.016 | 1.2 ... 2.0 | 70   |
| SPB 80N10L         | SP000014350 | P-TO263-3-2  | 100 | 0.014 | 1.2 ... 2.0 | 80   |
| ▼ SPB 80N10L G     | SP000102173 | PG-TO263-3-2 | 100 | 0.014 | 1.2 ... 2.0 | 80   |
| SPD 11N10          | SP000013847 | P-TO252-3-1  | 100 | 0.179 | 2.1 ... 4.0 | 10.5 |
| SPD 35N10          | SP000013853 | P-TO252-3-1  | 100 | 0.044 | 2.1 ... 4.0 | 35   |
| SPI 10N10          | SP000013846 | P-TO262-3-1  | 100 | 0.170 | 2.1 ... 4.0 | 10.3 |
| SPI 10N10L         | SP000013850 | P-TO262-3-1  | 100 | 0.154 | 1.2 ... 2.0 | 10.3 |
| SPI 21N10          | SP000013843 | P-TO262-3-1  | 100 | 0.080 | 2.1 ... 4.0 | 21   |
| SPI 35N10          | SP000013852 | P-TO262-3-1  | 100 | 0.044 | 2.1 ... 4.0 | 35   |
| SPI 47N10          | SP000013951 | P-TO262-3-1  | 100 | 0.033 | 2.1 ... 4.0 | 47   |
| ▼ SPI 47N10L       | SP000013952 | P-TO262-3-1  | 100 | 0.026 | 1.2 ... 2.0 | 47   |
| ▼ SPI 70N10L       | SP000014005 | P-TO262-3-1  | 100 | 0.016 | 1.2 ... 2.0 | 70   |
| SPI 80N10L         | SP000014351 | P-TO262-3-1  | 100 | 0.014 | 1.2 ... 2.0 | 80   |
| SPP 10N10          | SP000013844 | P-TO220-3-1  | 100 | 0.170 | 2.1 ... 4.0 | 10.3 |
| SPP 10N10L         | SP000013849 | P-TO220-3-1  | 100 | 0.154 | 1.2 ... 2.0 | 10.3 |
| SPP 21N10          | SP000013842 | P-TO220-3-1  | 100 | 0.080 | 2.1 ... 4.0 | 21   |
| SPP 35N10          | SP000013851 | P-TO220-3-1  | 100 | 0.044 | 2.1 ... 4.0 | 35   |
| SPP 47N10          | SP000012415 | P-TO220-3-1  | 100 | 0.033 | 2.1 ... 4.0 | 47   |
| SPP 47N10L         | SP000012102 | P-TO220-3-1  | 100 | 0.026 | 1.2 ... 2.0 | 47   |
| SPP 70N10L         | SP000012103 | P-TO220-3-1  | 100 | 0.016 | 1.2 ... 2.0 | 70   |
| SPP 80N10L         | SP000014349 | P-TO220-3-1  | 100 | 0.014 | 1.2 ... 2.0 | 80   |
| ▼ SPU 11N10        | SP000013848 | P-TO220-3-1  | 100 | 0.179 | 2.1 ... 4.0 | 10.5 |

SMD = Surface Mounted Device

| Type | Ordering Code | Package | Data     |              |              |       |
|------|---------------|---------|----------|--------------|--------------|-------|
|      |               |         | $V_{DS}$ | $R_{DS(on)}$ | $V_{GS(th)}$ | $I_D$ |
|      |               |         | V        | $\Omega$     | V            | A     |

## Power Transistors

### N-Channel Enhancement Types (SIPMOS®) (for industrial applications)

#### Low Voltage MOSFETs 100 V

|                  |             |              |     |       |             |    |
|------------------|-------------|--------------|-----|-------|-------------|----|
| ▼ IPB 70N10SL-16 | SP000225700 | PG-TO263-3-2 | 100 | 0.016 | 1.2 ... 2.0 | 70 |
| ▼ IPP 70N10SL-16 | SP000225708 | PG-TO220-3-1 | 100 | 0.016 | 1.2 ... 2.0 | 70 |

### N-Channel Enhancement Types (SIPMOS®)

#### Low Voltage MOSFETs 100 V

|                   |             |              |     |      |             |      |
|-------------------|-------------|--------------|-----|------|-------------|------|
| BSP 297           | SP000011108 | SOT223       | 200 | 2.00 | 0.8 ... 2.0 | 0.65 |
| ▼ BSP 297 G       | SP000089213 | SOT223       | 200 | 2.00 | 0.8 ... 2.0 | 0.65 |
| BUZ 30A           | SP000011336 | P-TO220-3-1  | 200 | 0.13 | 2.4 ... 4.0 | 21   |
| ▼ BUZ 30A E-3045A | SP000011337 | P-TO263-3-1  | 200 | 0.13 | 2.4 ... 4.0 | 21   |
| ▼ BUZ 30A E-3045A | SP000102176 | PG-TO263-3-1 | 200 | 0.13 | 2.4 ... 4.0 | 21   |
| BUZ 31            | SP000011341 | P-TO220-3-1  | 200 | 0.20 | 2.4 ... 4.0 | 13.5 |
| ▼ BUZ 31 E-3045A  | SP000011343 | P-TO263-3-2  | 200 | 0.20 | 2.4 ... 4.0 | 13.5 |
| ▼ BUZ 31 E-3045A  | SP000102175 | PG-TO263-3-2 | 200 | 0.20 | 2.4 ... 4.0 | 13.5 |
| ▼ BUZ 31 E-3046   | SP000011344 | PG-TO263-3-2 | 200 | 0.20 | 2.4 ... 4.0 | 13.5 |
| BUZ 31L           | SP000011342 | P-TO220-3-1  | 200 | 0.20 | 1.2 ... 2.0 | 13.5 |
| ▼ BUZ 31L E-3045A | SP000011961 | P-TO263-3-2  | 200 | 0.20 | 1.2 ... 2.0 | 13.5 |
| BUZ 32            | SP000011345 | P-TO220-3-1  | 200 | 0.40 | 2.4 ... 4.0 | 9.50 |
| ▼ BUZ 32 E-3045A  | SP000011346 | P-TO263-3-2  | 200 | 0.40 | 2.4 ... 4.0 | 9.50 |
| ▼ BUZ 32 E-3045A  | SP000102174 | PG-TO263-3-2 | 200 | 0.40 | 2.4 ... 4.0 | 9.50 |
| BUZ 73            | SP000011372 | P-TO220-3-1  | 200 | 0.40 | 2.4 ... 4.0 | 7.00 |
| ▼ BUZ 73 E-3046   | SP000011963 | P-TO220-3-1  | 200 | 0.40 | 2.4 ... 4.0 | 7.00 |
| BUZ 73A           | SP000011373 | P-TO220-3-1  | 200 | 0.60 | 2.4 ... 4.0 | 5.80 |
| ▼ BUZ 73A E-3046  | SP000011962 | P-TO220-3-1  | 200 | 0.60 | 2.4 ... 4.0 | 5.80 |
| BUZ 73AL          | SP000011375 | P-TO220-3-1  | 200 | 0.60 | 1.2 ... 2.0 | 5.80 |
| BUZ 73L           | SP000011374 | P-TO220-3-1  | 200 | 0.40 | 1.2 ... 2.0 | 7.00 |
| ■ BUZ 341         | SP000011353 | P-TO218-3-1  | 200 | 0.07 | 2.1 ... 4.0 | 33   |
| ■ BUZ 350         | SP000011357 | P-TO218-3-1  | 200 | 0.12 | 2.1 ... 4.0 | 22   |
| SPD 07N20         | SP000012080 | P-TO252-3-1  | 200 | 0.40 | 2.1 ... 4.0 | 7.00 |
| ▼ SPD 07N20       | SP000077394 | PG-TO252-3-1 | 200 | 0.40 | 2.1 ... 4.0 | 7.00 |

### N-Channel Enhancement Types (SIPMOS®)

#### Low Voltage MOSFETs 240 V

|                   |             |        |     |       |              |      |
|-------------------|-------------|--------|-----|-------|--------------|------|
| BSP 88            | SP000011159 | SOT223 | 240 | 8.00  | 0.6 ... 1.20 | 0.32 |
| ▼ BSP 88 G        | SP000089217 | SOT223 | 240 | 8.00  | 0.6 ... 1.20 | 0.32 |
| BSP 89            | SP000011160 | SOT223 | 240 | 6.00  | 0.8 ... 2.00 | 0.36 |
| ▼ BSP 89 G        | SP000089216 | SOT223 | 240 | 6.00  | 0.8 ... 2.00 | 0.36 |
| BSS 87 E-6327     | SP000011182 | SOT89  | 240 | 6.00  | 0.8 ... 2.0  | 0.29 |
| ▼ BSS 87 G E-6327 | SP000095794 | SOT89  | 240 | 6.00  | 0.8 ... 2.0  | 0.29 |
| ▼ BSS 87 E-6433   | SP000082233 | SOT89  | 240 | 6.00  | 0.8 ... 2.0  | 0.29 |
| BSS 131 E-6327    | SP000011168 | SOT23  | 240 | 16.00 | 0.8 ... 2.0  | 0.10 |

SMD = Surface Mounted Device

| Type | Ordering Code | Package | Data     |              |              |       |
|------|---------------|---------|----------|--------------|--------------|-------|
|      |               |         | $V_{DS}$ | $R_{DS(on)}$ | $V_{GS(th)}$ | $I_D$ |
|      |               |         | V        | $\Omega$     | V            | A     |

## Power Transistors

### N-Channel Enhancement Types (OptiMOS®) Low Voltage MOSFETs 30 V

|                      |             |               |    |        |             |      |
|----------------------|-------------|---------------|----|--------|-------------|------|
| BSO 4410             | SP000013453 | P-DSO-8-1     | 30 | 0.0130 | 1.2 ... 2.0 | 11   |
| ▼ BSO 4410 G         | SP000077498 | PG-DSO-8-1    | 30 | 0.0130 | 1.2 ... 2.0 | 11   |
| BSO 4420             | SP000013336 | P-DSO-8-1     | 30 | 0.0078 | 1.2 ... 2.0 | 13   |
| ▼ BSO 4420 G         | SP000077585 | PG-DSO-8-1    | 30 | 0.0078 | 1.2 ... 2.0 | 13   |
| BSO 4804             | SP000013606 | P-DSO-8-1     | 30 | 0.0200 | 1.2 ... 2.0 | 13.5 |
| ▼ BSO 4804 G         | SP000077616 | PG-DSO-8-1    | 30 | 0.0200 | 1.2 ... 2.0 | 13.5 |
| ▼ BSO 4822           | SP000080997 | PG-DSO-8-1    | 30 | 0.0100 | 1.2 ... 2.0 | 21   |
| ▼ SPB 42N03S2L-13 G  | SP000200137 | PG-TO263-3-2  | 30 | 0.0120 | 1.2 ... 2.0 | 42   |
| SPB 73N03S2L-08      | SP000016257 | P-TO263-3-2   | 30 | 0.0080 | 1.2 ... 2.0 | 73   |
| ▼ SPB 73N03S2L-08 G  | SP000200138 | PG-TO263-3-2  | 30 | 0.0080 | 1.2 ... 2.0 | 73   |
| SPB 80N03S2-03       | SP000016251 | P-TO263-3-2   | 30 | 0.0034 | 1.2 ... 2.0 | 80   |
| ▼ SPB 80N03S2-03 G   | SP000200139 | PG-TO263-3-2  | 30 | 0.0034 | 1.2 ... 2.0 | 80   |
| SPB 80N03S2L-03      | SP000016252 | P-TO263-3-2   | 30 | 0.0031 | 1.2 ... 2.0 | 80   |
| ▼ SPB 80N03S2L-03 G  | SP000200142 | PG-TO263-3-2  | 30 | 0.0031 | 1.2 ... 2.0 | 80   |
| SPB 80N03S2L-04      | SP000013901 | P-TO263-3-2   | 30 | 0.0043 | 1.2 ... 2.0 | 80   |
| ▼ SPB 80N03S2L-04 G  | SP000200143 | PG-TO263-3-2  | 30 | 0.0043 | 1.2 ... 2.0 | 80   |
| ▼ SPB 80N03S2L-05 G  | SP000200144 | PG-TO263-3-2  | 30 | 0.0052 | 1.2 ... 2.0 | 80   |
| SPB 80N03S2L-06      | SP000016264 | P-TO263-3-2   | 30 | 0.0059 | 1.2 ... 2.0 | 80   |
| ▼ SPB 80N03S2L-06 G  | SP000200145 | PG-TO263-3-2  | 30 | 0.0059 | 1.2 ... 2.0 | 80   |
| SPB 100N03S2-03      | SP000016260 | P-TO263-3-2   | 30 | 0.0033 | 2.1 ... 4.0 | 100  |
| ▼ SPB 100N03S2-03 G  | SP000200140 | PG-TO263-3-2  | 30 | 0.0033 | 2.1 ... 4.0 | 100  |
| SPB 100N03S2L-03     | SP000013460 | P-TO263-3-2   | 30 | 0.0030 | 1.2 ... 2.0 | 100  |
| ▼ SPB 100N03S2L-03 G | SP000200141 | PG-TO263-3-2  | 30 | 0.0030 | 1.2 ... 2.0 | 100  |
| SPD 30N03S2L-07      | SP000013749 | P-TO252-3-11  | 30 | 0.0067 | 1.2 ... 2.0 | 30   |
| ▼ SPD 30N03S2L-07 G  | SP000077583 | PG-TO252-3-11 | 30 | 0.0067 | 1.2 ... 2.0 | 30   |
| SPD 30N03S2L-10      | SP000016254 | P-TO252-3-11  | 30 | 0.0100 | 1.2 ... 2.0 | 30   |
| ▼ SPD 30N03S2L-10 G  | SP000077499 | PG-TO252-3-11 | 30 | 0.0100 | 1.2 ... 2.0 | 30   |
| SPD 30N03S2L-20      | SP000013488 | P-TO252-3-11  | 30 | 0.0200 | 1.2 ... 2.0 | 30   |
| SPD 50N03S2-07       | SP000016253 | P-TO252-3-11  | 30 | 0.0073 | 2.1 ... 4.0 | 50   |
| ▼ SPD 50N03S2-07 G   | SP000077579 | PG-TO252-3-11 | 30 | 0.0073 | 2.1 ... 4.0 | 50   |
| ▼ SPD 50N03S2L-06 G  | SP000077584 | PG-TO252-3-11 | 30 | 0.0064 | 1.2 ... 2.0 | 50   |
| SPI 42N03S2L-13      | SP000013897 | P-TO262-3-1   | 30 | 0.0129 | 1.2 ... 2.0 | 42   |
| SPI 73N03S2L-08      | SP000016263 | P-TO262-3-1   | 30 | 0.0084 | 1.2 ... 2.0 | 73   |
| SPI 80N03S2-03       | SP000016262 | P-TO262-3-1   | 30 | 0.0033 | 2.1 ... 4.0 | 100  |
| SPI 80N03S2L-03      | SP000016261 | P-TO262-3-1   | 30 | 0.0031 | 1.2 ... 2.0 | 80   |
| SPI 80N03S2L-04      | SP000013903 | P-TO262-3-1   | 30 | 0.0043 | 1.2 ... 2.0 | 80   |
| SPI 80N03S2L-05      | SP000016266 | P-TO262-3-1   | 30 | 0.0052 | 1.2 ... 2.0 | 80   |
| SPI 80N03S2L-06      | SP000016265 | P-TO262-3-1   | 30 | 0.0062 | 1.2 ... 2.0 | 80   |
| SPI 100N03S2-03      | SP000013492 | P-TO262-3-1   | 30 | 0.0033 | 2.1 ... 4.0 | 100  |
| SPI 100N03S2L-03     | SP000013491 | P-TO262-3-1   | 30 | 0.0030 | 1.2 ... 2.0 | 100  |
| SPP 42N03S2L-13      | SP000013464 | P-TO220-3-1   | 30 | 0.0120 | 1.2 ... 2.0 | 42   |
| SPP 73N03S2L-08      | SP000013465 | P-TO220-3-1   | 30 | 0.0080 | 1.2 ... 2.0 | 73   |

SMD = Surface Mounted Device

| Type | Ordering Code | Package | Data     |              |              |       |
|------|---------------|---------|----------|--------------|--------------|-------|
|      |               |         | $V_{DS}$ | $R_{DS(on)}$ | $V_{GS(th)}$ | $I_D$ |
|      |               |         | V        | $\Omega$     | V            | A     |

## Power Transistors

### N-Channel Enhancement Types (OptiMOS®)

#### Low Voltage MOSFETs 30 V

(cont'd)

|                  |             |             |    |        |             |     |
|------------------|-------------|-------------|----|--------|-------------|-----|
| SPP 80N03S2-03   | SP000012468 | P-TO220-3-1 | 30 | 0.0034 | 2.1 ... 4.0 | 80  |
| SPP 80N03S2L-03  | SP000012469 | P-TO220-3-1 | 30 | 0.0031 | 1.2 ... 2.0 | 80  |
| SPP 80N03S2L-04  | SP000013902 | P-TO220-3-1 | 30 | 0.0043 | 1.2 ... 2.0 | 80  |
| SPP 80N03S2L-05  | SP000013466 | P-TO220-3-1 | 30 | 0.0050 | 1.2 ... 2.0 | 80  |
| SPP 80N03S2L-06  | SP000014061 | P-TO220-3-1 | 30 | 0.0062 | 1.2 ... 2.0 | 80  |
| SPP 100N03S2-03  | SP000013463 | P-TO220-3-1 | 30 | 0.0033 | 2.1 ... 4.0 | 100 |
| SPP 100N03S2L-03 | SP000013462 | P-TO220-3-1 | 30 | 0.0030 | 1.2 ... 2.0 | 100 |
| SPU 30N03S2-08   | SP000014129 | P-TO251-3-1 | 30 | 0.0082 | 2.1 ... 4.0 | 30  |
| SPU 30N03S2L-10  | SP000013467 | P-TO251-3-1 | 30 | 0.0100 | 1.2 ... 2.0 | 30  |

### N-Channel Enhancement Types (OptiMOS®)

#### Low Voltage MOSFETs 40 V

|                  |             |             |    |        |             |     |
|------------------|-------------|-------------|----|--------|-------------|-----|
| SPB 80N04S2-04   | SP000016353 | P-TO263-3-2 | 40 | 0.0039 | 2.1 ... 4.0 | 80  |
| SPB 80N04S2-H4   | SP000016358 | P-TO263-3-2 | 40 | 0.0040 | 2.1 ... 4.0 | 80  |
| SPB 80N04S2L-03  | SP000016354 | P-TO263-3-2 | 40 | 0.0036 | 1.2 ... 2.0 | 80  |
| SPB 100N04S2-04  | SP000013711 | P-TO263-3-2 | 40 | 0.0036 | 2.1 ... 4.0 | 100 |
| SPB 100N04S2L-03 | SP000013712 | P-TO263-3-2 | 40 | 0.0033 | 1.2 ... 2.0 | 100 |
| SPB 160N04S2-03  | SP000014263 | P-TO263-7-3 | 40 | 0.0029 | 2.1 ... 4.0 | 160 |
| SPB 160N04S2L-03 | SP000014639 | P-TO263-3-2 | 40 | 0.0027 | 1.2 ... 2.0 | 160 |
| SPI 80N04S2-04   | SP000015085 | P-TO262-3-1 | 40 | 0.0034 | 2.1 ... 4.0 | 80  |
| SPP 80N04S2-04   | SP000012470 | P-TO220-3-1 | 40 | 0.0039 | 2.1 ... 4.0 | 80  |
| SPP 80N04S2-H4   | SP000013150 | P-TO220-3-1 | 40 | 0.0040 | 2.1 ... 4.0 | 80  |
| SPP 80N04S2L-03  | SP000012472 | P-TO220-3-1 | 40 | 0.0036 | 1.2 ... 2.0 | 80  |
| SPP 100N04S2-04  | SP000013718 | P-TO220-3-1 | 40 | 0.0036 | 2.1 ... 4.0 | 100 |
| SPP 100N04S2L-03 | SP000013719 | P-TO220-3-1 | 40 | 0.0033 | 1.2 ... 2.0 | 100 |

### N-Channel Enhancement Types (OptiMOS®) (for industrial applications)

#### Low Voltage MOSFETs 40 V

|                    |             |              |    |        |             |     |
|--------------------|-------------|--------------|----|--------|-------------|-----|
| ▼ IPB 80N04S2-H4   | SP000218165 | PG-TO263-3-2 | 40 | 0.0040 | 2.1 ... 4.0 | 80  |
| ▼ IPB 80N04S2L-03  | SP000220158 | PG-TO263-3-2 | 40 | 0.0036 | 1.2 ... 2.0 | 80  |
| ▼ IPB 100N04S2-04  | SP000219061 | PG-TO263-3-2 | 40 | 0.0036 | 2.1 ... 4.0 | 100 |
| ▼ IPB 100N04S2L-03 | SP000219065 | PG-TO263-3-2 | 40 | 0.0033 | 1.2 ... 2.0 | 100 |
| ▼ IPB 160N04S2-03  | SP000218151 | PG-TO263-7-3 | 40 | 0.0029 | 2.1 ... 4.0 | 160 |
| ▼ IPB 160N04S2L-03 | SP000218153 | PG-TO263-7-3 | 40 | 0.0027 | 1.2 ... 2.0 | 160 |
| ▼ IPI 80N04S2-04   | SP000219058 | PG-TO262-3-1 | 40 | 0.0034 | 2.1 ... 4.0 | 80  |
| ▼ IPP 80N04S2-04   | SP000219054 | PG-TO220-3-1 | 40 | 0.0039 | 2.1 ... 4.0 | 80  |
| ▼ IPP 80N04S2-H4   | SP000218169 | PG-TO220-3-1 | 40 | 0.0040 | 2.1 ... 4.0 | 80  |
| ▼ IPP 80N04S2L-03  | SP000219063 | PG-TO220-3-1 | 40 | 0.0036 | 1.2 ... 2.0 | 80  |
| ▼ IPP 100N04S2-04  | SP000219056 | PG-TO220-3-1 | 40 | 0.0036 | 2.1 ... 4.0 | 100 |
| ▼ IPP 100N04S2L-03 | SP000219062 | PG-TO220-3-1 | 40 | 0.0033 | 1.2 ... 2.0 | 100 |

SMD = Surface Mounted Device

# Power Semiconductors

| Type | Ordering Code | Package | Data     |              |              |       |
|------|---------------|---------|----------|--------------|--------------|-------|
|      |               |         | $V_{DS}$ | $R_{DS(on)}$ | $V_{GS(th)}$ | $I_D$ |
|      |               |         | V        | $\Omega$     | V            | A     |

## Power Transistors

### N-Channel Enhancement Types (OptiMOS®)

#### Low Voltage MOSFETs 55 V

|                   |             |             |    |        |             |      |
|-------------------|-------------|-------------|----|--------|-------------|------|
| BSO 604NS2        | SP000013128 | P-DSO-8-5   | 55 | 0.0350 | 1.2 ... 2.0 | 5.00 |
| BSP 603S2L        | SP000013597 | SOT223      | 55 | 0.0330 | 1.2 ... 2.0 | 5.20 |
| BSP 615S2L        | SP000013181 | SOT223      | 55 | 0.0900 | 1.2 ... 2.0 | 2.80 |
| BSS 670S2L        | SP000013197 | SOT23       | 55 | 0.6500 | 1.2 ... 2.0 | 0.54 |
| SPB 77N06S2-12    | SP000013587 | P-TO263-3-2 | 55 | 0.0120 | 2.1 ... 4.0 | 77   |
| SPB 80N06S2-05    | SP000016351 | P-TO263-3-2 | 55 | 0.0051 | 2.1 ... 4.0 | 80   |
| SPB 80N06S2-07    | SP000013578 | P-TO263-3-2 | 55 | 0.0066 | 2.1 ... 4.0 | 80   |
| SPB 80N06S2-08    | SP000016356 | P-TO263-3-2 | 55 | 0.0080 | 2.1 ... 4.0 | 80   |
| SPB 80N06S2-09    | SP000013581 | P-TO263-3-2 | 55 | 0.0091 | 2.1 ... 4.0 | 80   |
| SPB 80N06S2-H5    | SP000013795 | P-TO263-3-2 | 55 | 0.0055 | 2.1 ... 4.0 | 80   |
| SPB 80N06S2L-05   | SP000016352 | P-TO263-3-2 | 55 | 0.0048 | 1.2 ... 2.0 | 80   |
| SPB 80N06S2L-06   | SP000013577 | P-TO263-3-2 | 55 | 0.0063 | 1.2 ... 2.0 | 80   |
| SPB 80N06S2L-07   | SP000016357 | P-TO263-3-2 | 55 | 0.0070 | 1.2 ... 2.0 | 80   |
| SPB 80N06S2L-09   | SP000013582 | P-TO263-3-2 | 55 | 0.0085 | 1.2 ... 2.0 | 80   |
| SPB 80N06S2L-11   | SP000013586 | P-TO263-3-2 | 55 | 0.0110 | 1.2 ... 2.0 | 80   |
| SPB 80N06S2L-H5   | SP000013796 | P-TO263-3-2 | 55 | 0.0050 | 1.2 ... 2.0 | 80   |
| SPB 100N06S2-05   | SP000013713 | P-TO263-3-2 | 55 | 0.0050 | 2.1 ... 4.0 | 100  |
| SPB 100N06S2L-05  | SP000013714 | P-TO263-3-2 | 55 | 0.0047 | 1.2 ... 2.0 | 100  |
| SPD 14N06S2-80    | SP000013575 | P-TO252-3-1 | 55 | 0.0800 | 2.1 ... 4.0 | 14   |
| SPD 15N06S2L-64   | SP000013573 | P-TO252-3-1 | 55 | 0.0640 | 1.2 ... 2.0 | 15   |
| SPD 25N06S2-40    | SP000013572 | P-TO252-3-1 | 55 | 0.0400 | 2.1 ... 4.0 | 25   |
| SPD 26N06S2L-35   | SP000013570 | P-TO252-3-1 | 55 | 0.0350 | 1.2 ... 2.0 | 26   |
| SPD 30N06S2-15    | SP000012477 | P-TO252-3-1 | 55 | 0.0147 | 2.1 ... 4.0 | 30   |
| SPD 30N06S2-23    | SP000013596 | P-TO252-3-1 | 55 | 0.0230 | 2.1 ... 4.0 | 30   |
| SPD 30N06S2L-13   | SP000012478 | P-TO252-3-1 | 55 | 0.0130 | 1.2 ... 2.0 | 30   |
| SPD 30N06S2L-23   | SP000013127 | P-TO252-3-1 | 55 | 0.0230 | 1.2 ... 2.0 | 30   |
| SPD 50N06S2-14    | SP000013569 | P-TO252-3-1 | 55 | 0.0144 | 2.1 ... 4.0 | 50   |
| SPD 50N06S2L-13   | SP000013568 | P-TO252-3-1 | 55 | 0.0127 | 1.2 ... 2.0 | 50   |
| SPI 80N06S2-07    | SP000013784 | P-TO262-3-1 | 55 | 0.0066 | 2.1 ... 4.0 | 80   |
| SPI 80N06S2-08    | SP000013911 | P-TO262-3-1 | 55 | 0.0080 | 2.1 ... 4.0 | 80   |
| SPI 80N06S2L-05   | SP000016360 | P-TO262-3-1 | 55 | 0.0045 | 1.2 ... 2.0 | 80   |
| ▼ SPI 80N06S2L-11 | SP000029960 | P-TO262-3-1 | 55 | 0.0110 | 1.2 ... 2.0 | 80   |
| SPP 77N06S2-12    | SP000013588 | P-TO220-3-1 | 55 | 0.0120 | 2.1 ... 4.0 | 77   |
| ▼ SPP 80N06S-08   | SP000054054 | P-TO220-3-1 | 55 | 0.0077 | 2.1 ... 4.0 | 80   |
| SPP 80N06S2-05    | SP000012473 | P-TO220-3-1 | 55 | 0.0051 | 2.1 ... 4.0 | 80   |
| SPP 80N06S2-07    | SP000013579 | P-TO220-3-1 | 55 | 0.0120 | 2.1 ... 4.0 | 80   |
| SPP 80N06S2-08    | SP000012822 | P-TO220-3-1 | 55 | 0.0080 | 2.1 ... 4.0 | 80   |
| SPP 80N06S2-09    | SP000013583 | P-TO220-3-1 | 55 | 0.0091 | 2.1 ... 4.0 | 80   |
| SPP 80N06S2-H5    | SP000014000 | P-TO220-3-1 | 55 | 0.0055 | 2.1 ... 4.0 | 80   |
| SPP 80N06S2L-05   | SP000012474 | P-TO220-3-1 | 55 | 0.0048 | 1.2 ... 2.0 | 80   |
| SPP 80N06S2L-06   | SP000013576 | P-TO220-3-1 | 55 | 0.0063 | 1.2 ... 2.0 | 80   |
| SPP 80N06S2L-07   | SP000012823 | P-TO220-3-1 | 55 | 0.0070 | 1.2 ... 2.0 | 80   |
| SPP 80N06S2L-09   | SP000013580 | P-TO220-3-1 | 55 | 0.0085 | 1.2 ... 2.0 | 80   |
| SPP 80N06S2L-11   | SP000013584 | P-TO220-3-1 | 55 | 0.0110 | 1.2 ... 2.0 | 80   |
| SPP 80N06S2L-H5   | SP000014001 | P-TO220-3-1 | 55 | 0.0050 | 1.2 ... 2.0 | 80   |
| SPP 100N06S2-05   | SP000013720 | P-TO220-3-1 | 55 | 0.0050 | 2.1 ... 4.0 | 100  |
| SPP 100N06S2L-05  | SP000013721 | P-TO220-3-1 | 55 | 0.0047 | 1.2 ... 2.0 | 100  |

SMD = Surface Mounted Device

| Type | Ordering Code | Package | Data     |              |              |       |
|------|---------------|---------|----------|--------------|--------------|-------|
|      |               |         | $V_{DS}$ | $R_{DS(on)}$ | $V_{GS(th)}$ | $I_D$ |
|      |               |         | V        | $\Omega$     | V            | A     |

## Power Transistors

### N-Channel Enhancement Types (OptiMOS®) (for industrial applications) Low Voltage MOSFETs 55V

|                    |             |              |    |        |             |     |
|--------------------|-------------|--------------|----|--------|-------------|-----|
| ▼ IPB 77N06S2-12   | SP000218173 | PG-TO263-3-2 | 55 | 0.0120 | 2.1 ... 4.0 | 77  |
| ▼ IPB 80N06S2-05   | SP000218877 | PG-TO263-3-2 | 55 | 0.0051 | 2.1 ... 4.0 | 80  |
| ▼ IPB 80N06S2-07   | SP000218818 | PG-TO263-3-2 | 55 | 0.0066 | 2.1 ... 4.0 | 80  |
| ▼ IPB 80N06S2-08   | SP000218830 | PG-TO263-3-2 | 55 | 0.0080 | 2.1 ... 4.0 | 80  |
| ▼ IPB 80N06S2-09   | SP000218741 | PG-TO263-3-2 | 55 | 0.0091 | 2.1 ... 4.0 | 80  |
| ▼ IPB 80N06S2-H5   | SP000218162 | PG-TO263-3-2 | 55 | 0.0055 | 2.1 ... 4.0 | 80  |
| ▼ IPB 80N06S2L-05  | SP000219004 | PG-TO263-3-2 | 55 | 0.0048 | 1.2 ... 2.0 | 80  |
| ▼ IPB 80N06S2L-06  | SP000218163 | PG-TO263-3-2 | 55 | 0.0063 | 1.2 ... 2.0 | 80  |
| ▼ IPB 80N06S2L-07  | SP000218867 | PG-TO263-3-2 | 55 | 0.0070 | 1.2 ... 2.0 | 80  |
| ▼ IPB 80N06S2L-09  | SP000218743 | PG-TO263-3-2 | 55 | 0.0085 | 1.2 ... 2.0 | 80  |
| ▼ IPB 80N06S2L-11  | SP000218177 | PG-TO263-3-2 | 55 | 0.0110 | 1.2 ... 2.0 | 80  |
| ▼ IPB 80N06S2L-H5  | SP000219068 | PG-TO263-3-2 | 55 | 0.0050 | 1.2 ... 2.0 | 80  |
| ▼ IPB 100N06S2-05  | SP000218874 | PG-TO263-3-2 | 55 | 0.0050 | 2.1 ... 4.0 | 100 |
| ▼ IPB 100N06S2L-05 | SP000219003 | PG-TO263-3-2 | 55 | 0.0047 | 1.2 ... 2.0 | 100 |
| ▼ IPI 80N06S2-07   | SP000218817 | PG-TO262-3-1 | 55 | 0.0066 | 2.1 ... 4.0 | 80  |
| ▼ IPI 80N06S2-08   | SP000218828 | PG-TO262-3-1 | 55 | 0.0080 | 2.1 ... 4.0 | 80  |
| ▼ IPI 80N06S2L-05  | SP000219002 | PG-TO262-3-1 | 55 | 0.0045 | 1.2 ... 2.0 | 80  |
| ▼ IPI 80N06S2L-11  | SP000218176 | PG-TO262-3-1 | 55 | 0.0110 | 1.2 ... 2.0 | 80  |
| ▼ IPP 77N06S2-12   | SP000218172 | PG-TO220-3-1 | 55 | 0.0120 | 2.1 ... 4.0 | 77  |
| ▼ IPP 80N06S2-05   | SP000218873 | PG-TO220-3-1 | 55 | 0.0051 | 2.1 ... 4.0 | 80  |
| ▼ IPP 80N06S2-07   | SP000218810 | PG-TO220-3-1 | 55 | 0.0120 | 2.1 ... 4.0 | 80  |
| ▼ IPP 80N06S2-08   | SP000218826 | PG-TO220-3-1 | 55 | 0.0080 | 2.1 ... 4.0 | 80  |
| ▼ IPP 80N06S2-09   | SP000218740 | PG-TO220-3-1 | 55 | 0.0091 | 2.1 ... 4.0 | 80  |
| ▼ IPP 80N06S2-H5   | SP000218155 | PG-TO220-3-1 | 55 | 0.0055 | 2.1 ... 4.0 | 80  |
| ▼ IPP 80N06S2L-05  | SP000219000 | PG-TO220-3-1 | 55 | 0.0048 | 1.2 ... 2.0 | 80  |
| ▼ IPP 80N06S2L-06  | SP000218824 | PG-TO220-3-1 | 55 | 0.0063 | 1.2 ... 2.0 | 80  |
| ▼ IPP 80N06S2L-07  | SP000218831 | PG-TO220-3-1 | 55 | 0.0070 | 1.2 ... 2.0 | 80  |
| ▼ IPP 80N06S2L-09  | SP000218742 | PG-TO220-3-1 | 55 | 0.0085 | 1.2 ... 2.0 | 80  |
| ▼ IPP 80N06S2L-11  | SP000218175 | PG-TO220-3-1 | 55 | 0.0110 | 1.2 ... 2.0 | 80  |
| ▼ IPP 80N06S2L-H5  | SP000219067 | PG-TO220-3-1 | 55 | 0.0050 | 1.2 ... 2.0 | 80  |
| ▼ IPP 100N06S2-05  | SP000218872 | PG-TO220-3-1 | 55 | 0.0050 | 2.1 ... 4.0 | 100 |
| ▼ IPP 100N06S2L-05 | SP000218879 | PG-TO220-3-1 | 55 | 0.0047 | 1.2 ... 2.0 | 100 |

### N-Channel Enhancement Types (OptiMOS®) Low Voltage MOSFETs 60 V (logic level)

|                 |             |              |    |        |             |     |
|-----------------|-------------|--------------|----|--------|-------------|-----|
| ▼ IPB 048N06L G | SP000204181 | PG-TO263-3-2 | 60 | 0.0044 | 1.2 ... 2.0 | 100 |
| ▼ IPB 065N06L G | SP000204183 | PG-TO263-3-2 | 60 | 0.0065 | 1.2 ... 2.0 | 80  |
| ▼ IPB 070N06L G | SP000204172 | PG-TO263-3-2 | 60 | 0.0067 | 1.2 ... 2.0 | 80  |
| ▼ IPB 085N06L G | SP000204190 | PG-TO263-3-2 | 60 | 0.0085 | 1.2 ... 2.0 | 80  |
| ▼ IPB 110N06L G | SP000204193 | PG-TO263-3-2 | 60 | 0.0110 | 1.2 ... 2.0 | 78  |
| ▼ IPD 127N06L G | SP000204177 | P-TO252-3-11 | 60 | 0.0127 | 1.2 ... 2.0 | 50  |
| ▼ IPD 640N06L G | SP000203939 | P-TO252-3-11 | 60 | 0.0640 | 1.2 ... 2.0 | 18  |
| ▼ IPP 048N06L G | SP000204180 | PG-TO220-3-1 | 60 | 0.0044 | 1.2 ... 2.0 | 100 |
| ▼ IPP 065N06L G | SP000204182 | PG-TO220-3-1 | 60 | 0.0065 | 1.2 ... 2.0 | 80  |
| ▼ IPP 070N06L G | SP000204171 | PG-TO220-3-1 | 60 | 0.0067 | 1.2 ... 2.0 | 80  |
| ▼ IPP 085N06L G | SP000204188 | PG-TO220-3-1 | 60 | 0.0085 | 1.2 ... 2.0 | 80  |
| ▼ IPP 110N06L G | SP000204194 | PG-TO220-3-1 | 60 | 0.0110 | 1.2 ... 2.0 | 78  |

SMD = Surface Mounted Device

| Type | Ordering Code | Package | Data     |              |              |       |
|------|---------------|---------|----------|--------------|--------------|-------|
|      |               |         | $V_{DS}$ | $R_{DS(on)}$ | $V_{GS(th)}$ | $I_D$ |
|      |               |         | V        | $\Omega$     | V            | A     |

## Power Transistors

### N-Channel Enhancement Types (OptiMOS®) Low Voltage MOSFETs 60 V (normal level)

|                 |             |              |    |        |             |    |
|-----------------|-------------|--------------|----|--------|-------------|----|
| ▼ IPB 070N06N G | SP000204187 | PG-TO263-3-2 | 60 | 0.0067 | 1.2 ... 2.0 | 80 |
| ▼ IPB 080N06N G | SP000204174 | PG-TO263-3-2 | 60 | 0.0077 | 1.2 ... 2.0 | 80 |
| ▼ IPB120N06N G  | SP000204176 | PG-TO263-3-2 | 60 | 0.0117 | 1.2 ... 2.0 | 75 |
| ▼ IPD 144N06N G | SP000203941 | P-TO252-3-11 | 60 | 0.0144 | 2.1 ... 4.0 | 50 |
| ▼ IPD 400N06N G | SP000203938 | P-TO252-3-11 | 60 | 0.0400 | 2.1 ... 4.0 | 27 |
| ▼ IPD 800N06N G | SP000204179 | P-TO252-3-11 | 60 | 0.0800 | 2.1 ... 4.0 | 16 |
| ▼ IPI 070N06N G | SP000208612 | P-TO262-3-1  | 60 | 0.0067 | 1.2 ... 2.0 | 80 |
| ▼ IPP 080N06N G | SP000204173 | PG-TO220-3-1 | 60 | 0.0077 | 2.1 ... 4.0 | 80 |
| ▼ IPP 070N06N G | SP000204186 | PG-TO220-3-1 | 60 | 0.0067 | 1.2 ... 2.0 | 80 |
| ▼ IPP120N06N G  | SP000204175 | PG-TO220-3-1 | 60 | 0.0117 | 1.2 ... 2.0 | 75 |

### N-Channel Enhancement Types (OptiMOS®) Low Voltage MOSFETs 75 V

|                   |             |              |    |        |             |     |
|-------------------|-------------|--------------|----|--------|-------------|-----|
| SPB 80N08S2-07    | SP000016355 | P-TO263-3-2  | 75 | 0.0071 | 2.1 ... 4.0 | 80  |
| SPB 80N08S2L-07   | SP000016359 | P-TO263-3-2  | 75 | 0.0068 | 1.2 ... 2.0 | 80  |
| SPB 100N08S2-07   | SP000013715 | P-TO263-3-2  | 75 | 0.0068 | 2.1 ... 4.0 | 100 |
| SPB 100N08S2L-07  | SP000013716 | P-TO263-3-2  | 75 | 0.0065 | 1.2 ... 2.0 | 100 |
| SPD 220N08S2L-50  | SP000013910 | P-TO252-3-11 | 75 | 0.0500 | 1.2 ... 2.0 | 25  |
| SPD 30N08S2-22    | SP000013153 | P-TO252-3-11 | 75 | 0.0215 | 2.1 ... 4.0 | 30  |
| SPD 30N08S2L-21   | SP000013152 | P-TO252-3-11 | 75 | 0.0205 | 1.2 ... 2.0 | 30  |
| ▼ SPI 80N08S2-07  | SP000013954 | P-TO262-3-1  | 75 | 0.0071 | 2.1 ... 4.0 | 80  |
| SPI 80N08S2-07R   | SP000013717 | P-TO262-3-1  | 75 | 0.0073 | 2.1 ... 4.0 | 80  |
| ▼ SPI 100N08S2-07 | SP000055687 | P-TO262-3-1  | 75 | 0.0068 | 2.1 ... 4.0 | 100 |
| SPP 80N08S2-07    | SP000012475 | P-TO220-3-1  | 75 | 0.0071 | 2.1 ... 4.0 | 80  |
| SPP 80N08S2L-07   | SP000012476 | P-TO220-3-1  | 75 | 0.0068 | 1.2 ... 2.0 | 80  |
| SPP 100N08S2-07   | SP000013722 | P-TO220-3-1  | 75 | 0.0068 | 2.1 ... 4.0 | 100 |
| SPP 100N08S2L-07  | SP000013723 | P-TO220-3-1  | 75 | 0.0065 | 1.2 ... 2.0 | 100 |

### N-Channel Enhancement Types (OptiMOS®) (for industrial applications) Low Voltage MOSFETs 75 V

|                    |             |              |    |        |             |     |
|--------------------|-------------|--------------|----|--------|-------------|-----|
| ▼ IPB 100N08S2-07  | SP000219044 | PG-TO263-3-2 | 75 | 0.0068 | 2.1 ... 4.0 | 100 |
| ▼ IPB 100N08S2L-07 | SP000219053 | PG-TO263-3-2 | 75 | 0.0065 | 1.2 ... 2.0 | 100 |
| ▼ IPB 80N08S2-07   | SP000219048 | PG-TO263-3-2 | 75 | 0.0071 | 2.1 ... 4.0 | 80  |
| ▼ IPB 80N08S2L-07  | SP000219051 | PG-TO263-3-2 | 75 | 0.0068 | 1.2 ... 2.0 | 80  |
| ▼ IPI 80N08S2-07   | SP000219043 | PG-TO262-3-1 | 75 | 0.0071 | 2.1 ... 4.0 | 80  |
| ▼ IPI 100N08S2-07  | SP000219041 | PG-TO262-3-1 | 75 | 0.0068 | 2.1 ... 4.0 | 100 |
| ▼ IPP 80N08S2-07   | SP000219040 | PG-TO220-3-1 | 75 | 0.0071 | 2.1 ... 4.0 | 80  |
| ▼ IPP 80N08S2L-07  | SP000219050 | PG-TO220-3-1 | 75 | 0.0068 | 1.2 ... 2.0 | 80  |
| ▼ IPP 100N08S2-07  | SP000219005 | PG-TO220-3-1 | 75 | 0.0068 | 2.1 ... 4.0 | 100 |
| ▼ IPP 100N08S2L-07 | SP000219052 | PG-TO220-3-1 | 75 | 0.0065 | 1.2 ... 2.0 | 100 |

SMD = Surface Mounted Device

# Power Semiconductors

| Type | Ordering Code | Package | Data     |              |              |       |
|------|---------------|---------|----------|--------------|--------------|-------|
|      |               |         | $V_{DS}$ | $R_{DS(on)}$ | $V_{GS(th)}$ | $I_D$ |
|      |               |         | V        | $\Omega$     | V            | A     |

## Power Transistors

### N-Channel Enhancement Types (OptiMOS®2) Low Voltage MOSFETs 25 V

|                  |             |               |    |        |             |     |
|------------------|-------------|---------------|----|--------|-------------|-----|
| ▼ BSC 020N025S G | SP000095463 | PG-TDSON-8    | 25 | 0.0020 | 1.2 ... 2.0 | 100 |
| ▼ BSC 024N025S G | SP000095464 | PG-TDSON-8    | 25 | 0.0024 | 1.2 ... 2.0 | 100 |
| ▼ BSC 029N025S G | SP000095465 | PG-TDSON-8    | 25 | 0.0029 | 1.2 ... 2.0 | 100 |
| ▼ BSC 037N025S G | SP000095466 | PG-TDSON-8    | 25 | 0.0037 | 1.2 ... 2.0 | 100 |
| ▼ BSC 048N025S G | SP000095467 | PG-TDSON-8    | 25 | 0.0048 | 1.2 ... 2.0 | 89  |
| ▼ BSC 072N025S G | SP000095468 | PG-TDSON-8    | 25 | 0.0072 | 1.2 ... 2.0 | 40  |
| ▼ BSC 085N025S G | SP000095469 | PG-TDSON-8    | 25 | 0.0085 | 1.2 ... 2.0 | 35  |
| ▼ BSC 106N025S G | SP000095470 | PG-TDSON-8    | 25 | 0.0106 | 1.2 ... 2.0 | 30  |
| IPB 03N03LA      | SP000014034 | P-TO263-3-2   | 25 | 0.0027 | 1.2 ... 2.0 | 80  |
| ▼ IPB 03N03LA G  | SP000087858 | PG-TO263-3-2  | 25 | 0.0027 | 1.2 ... 2.0 | 80  |
| IPB 04N03LA      | SP000014354 | P-TO263-3-2   | 25 | 0.0039 | 1.2 ... 2.0 | 80  |
| ▼ IPB 04N03LA G  | SP000103302 | PG-TO263-3-2  | 25 | 0.0039 | 1.2 ... 2.0 | 80  |
| IPB 05N03LA      | SP000016268 | P-TO263-3-2   | 25 | 0.0046 | 1.2 ... 2.0 | 80  |
| ▼ IPB 05N03LA G  | SP000068872 | PG-TO263-3-2  | 25 | 0.0046 | 1.2 ... 2.0 | 80  |
| IPB 06N03LA      | SP000016269 | P-TO263-3-2   | 25 | 0.0059 | 1.2 ... 2.0 | 50  |
| ▼ IPB 06N03LA G  | SP000068850 | PG-TO263-3-2  | 25 | 0.0059 | 1.2 ... 2.0 | 50  |
| IPB 09N03LA      | SP000016271 | P-TO263-3-2   | 25 | 0.0089 | 1.2 ... 2.0 | 50  |
| ▼ IPB 09N03LA G  | SP000068859 | PG-TO263-3-2  | 25 | 0.0089 | 1.2 ... 2.0 | 50  |
| IPB 11N03LA      | SP000014987 | P-TO263-3-2   | 25 | 0.0112 | 1.2 ... 2.0 | 30  |
| ▼ IPB 11N03LA G  | SP000103306 | PG-TO263-3-2  | 25 | 0.0112 | 1.2 ... 2.0 | 30  |
| IPB 14N03LA      | SP000016324 | P-TO263-3-2   | 25 | 0.0136 | 1.2 ... 2.0 | 30  |
| ▼ IPB 14N03LA G  | SP000085264 | PG-TO263-3-2  | 25 | 0.0136 | 1.2 ... 2.0 | 30  |
| IPB H6N03LA      | SP000068587 | P-TO263-3-2   | 25 | 0.0062 | 1.2 ... 2.0 | 50  |
| ▼ IPB H6N03LA G  | SP000080228 | PG-TO263-3-2  | 25 | 0.0062 | 1.2 ... 2.0 | 50  |
| ▼ IPD 03N03LA G  | SP000016406 | PG-TO252-3-11 | 25 | 0.0032 | 1.2 ... 2.0 | 90  |
| IPD 04N03LA      | SP000014352 | P-TO252-3-11  | 25 | 0.0038 | 1.2 ... 2.0 | 50  |
| ▼ IPD 04N03LA G  | SP000017598 | PG-TO252-3-11 | 25 | 0.0038 | 1.2 ... 2.0 | 50  |
| IPD 05N03LA      | SP000014022 | P-TO252-3-11  | 25 | 0.0051 | 1.2 ... 2.0 | 50  |
| ▼ IPD 05N03LA G  | SP000017599 | PG-TO252-3-11 | 25 | 0.0051 | 1.2 ... 2.0 | 50  |
| IPD 06N03LA      | SP000016270 | P-TO252-3-11  | 25 | 0.0057 | 1.2 ... 2.0 | 50  |
| ▼ IPD 06N03LA G  | SP000017600 | PG-TO252-3-11 | 25 | 0.0057 | 1.2 ... 2.0 | 50  |
| IPD 09N03LA      | SP000016272 | P-TO252-3-11  | 25 | 0.0060 | 1.2 ... 2.0 | 50  |
| ▼ IPD 09N03LA G  | SP000017536 | PG-TO252-3-11 | 25 | 0.0060 | 1.2 ... 2.0 | 50  |
| IPD 10N03LA      | SP000014983 | P-TO252-3-11  | 25 | 0.0104 | 1.2 ... 2.0 | 30  |
| ▼ IPD 10N03LA G  | SP000017602 | PG-TO252-3-11 | 25 | 0.0104 | 1.2 ... 2.0 | 30  |
| IPD 13N03LA      | SP000016325 | P-TO252-3-11  | 25 | 0.0128 | 1.2 ... 2.0 | 30  |
| ▼ IPD 13N03LA G  | SP000017537 | PG-TO252-3-11 | 25 | 0.0128 | 1.2 ... 2.0 | 30  |
| IPD H4N03LA G    | SP000016407 | PG-TO252-3-11 | 25 | 0.0042 | 1.2 ... 2.0 | 90  |
| IPD H5N03LA G    | SP000064379 | PG-TO252-3-11 | 25 | 0.0052 | 1.2 ... 2.0 | 50  |
| IPD H6N03LA G    | SP000065817 | PG-TO252-3-11 | 25 | 0.0060 | 1.2 ... 2.0 | 50  |
| IPD H9N03LA G    | SP000223594 | PG-TO252-3-11 | 25 | 0.0092 | 1.2 ... 2.0 | 30  |
| IPF 04N03LA      | SP000014622 | P-TO252-3-23  | 25 | 0.0041 | 1.2 ... 2.0 | 50  |
| ▼ IPF 04N03LA G  | SP000017605 | PG-TO252-3-23 | 25 | 0.0041 | 1.2 ... 2.0 | 50  |
| IPF 05N03LA      | SP000014545 | P-TO252-3-23  | 25 | 0.0054 | 1.2 ... 2.0 | 50  |
| ▼ IPF 05N03LA G  | SP000017606 | PG-TO252-3-23 | 25 | 0.0054 | 1.2 ... 2.0 | 50  |
| IPF 06N03LA      | SP000015047 | P-TO252-3-23  | 25 | 0.0089 | 1.2 ... 2.0 | 50  |
| ▼ IPF 06N03LA G  | SP000017607 | PG-TO252-3-23 | 25 | 0.0089 | 1.2 ... 2.0 | 50  |

SMD = Surface Mounted Device

| Type | Ordering Code | Package | Data     |              |              |       |
|------|---------------|---------|----------|--------------|--------------|-------|
|      |               |         | $V_{DS}$ | $R_{DS(on)}$ | $V_{GS(th)}$ | $I_D$ |
|      |               |         | V        | $\Omega$     | V            | A     |

## Power Transistors

### N-Channel Enhancement Types (OptiMOS®2)

#### Low Voltage MOSFETs 25 V

(cont'd)

|                 |             |               |    |        |             |    |
|-----------------|-------------|---------------|----|--------|-------------|----|
| IPF 09N03LA     | SP000014623 | P-TO252-3-23  | 25 | 0.0106 | 1.2 ... 2.0 | 30 |
| ▼ IPF 09N03LA G | SP000017608 | PG-TO252-3-23 | 25 | 0.0106 | 1.2 ... 2.0 | 30 |
| IPF 10N03LA     | SP000014985 | P-TO252-3-23  | 25 | 0.0133 | 1.2 ... 2.0 | 30 |
| ▼ IPF 10N03LA G | SP000017609 | PG-TO252-3-23 | 25 | 0.0133 | 1.2 ... 2.0 | 30 |
| IPF 13N03LA     | SP000014546 | P-TO252-3-23  | 25 | 0.0130 | 1.2 ... 2.0 | 30 |
| ▼ IPF 13N03LA G | SP000017610 | PG-TO252-3-23 | 25 | 0.0130 | 1.2 ... 2.0 | 30 |
| IPF H6N03LA     | SP000068589 | PG-TO252-3-23 | 25 | 0.0062 | 1.2 ... 2.0 | 50 |
| IPI 03N03LA     | SP000014036 | P-TO262-3-1   | 25 | 0.0027 | 1.2 ... 2.0 | 80 |
| IPI 04N03LA     | SP000014355 | P-TO262-3-1   | 25 | 0.0039 | 1.2 ... 2.0 | 80 |
| IPI 05N03LA     | SP000014021 | P-TO262-3-1   | 25 | 0.0046 | 1.2 ... 2.0 | 80 |
| IPI 06N03LA     | SP000014026 | P-TO262-3-1   | 25 | 0.0059 | 1.2 ... 2.0 | 50 |
| IPI 09N03LA     | SP000014032 | P-TO262-3-1   | 25 | 0.0089 | 1.2 ... 2.0 | 50 |
| IPI 11N03LA     | SP000014988 | P-TO262-3-1   | 25 | 0.0112 | 1.2 ... 2.0 | 30 |
| IPI 14N03LA     | SP000014029 | P-TO262-3-1   | 25 | 0.0136 | 1.2 ... 2.0 | 30 |
| IPP 03N03LA     | SP000014035 | P-TO220-3-1   | 25 | 0.0027 | 1.2 ... 2.0 | 80 |
| IPP 04N03LA     | SP000014353 | P-TO220-3-1   | 25 | 0.0039 | 1.2 ... 2.0 | 80 |
| IPP 05N03LA     | SP000014020 | P-TO220-3-1   | 25 | 0.0046 | 1.2 ... 2.0 | 80 |
| IPP 06N03LA     | SP000014025 | P-TO220-3-1   | 25 | 0.0059 | 1.2 ... 2.0 | 50 |
| IPP 09N03LA     | SP000014031 | P-TO220-3-1   | 25 | 0.0089 | 1.2 ... 2.0 | 50 |
| IPP 11N03LA     | SP000014986 | P-TO220-3-1   | 25 | 0.0112 | 1.2 ... 2.0 | 30 |
| IPP 14N03LA     | SP000014028 | P-TO220-3-1   | 25 | 0.0136 | 1.2 ... 2.0 | 30 |
| ▼ IPS 03N03LA G | SP000016404 | PG-TO251-3-11 | 25 | 0.0034 | 1.2 ... 2.0 | 90 |
| IPS 04N03LA G   | SP000016330 | PG-TO251-3-11 | 25 | 0.0040 | 1.2 ... 2.0 | 50 |
| IPS 05N03LA G   | SP000015129 | PG-TO251-3-11 | 25 | 0.0051 | 1.2 ... 2.0 | 50 |
| IPS 06N03LA G   | SP000015130 | PG-TO251-3-11 | 25 | 0.0057 | 1.2 ... 2.0 | 50 |
| IPS 09N03LA G   | SP000015131 | PG-TO251-3-11 | 25 | 0.0086 | 1.2 ... 2.0 | 50 |
| IPS 10N03LA G   | SP000015132 | PG-TO251-3-11 | 25 | 0.0104 | 1.2 ... 2.0 | 30 |
| IPS 13N03LA G   | SP000015133 | PG-TO251-3-11 | 25 | 0.0128 | 1.2 ... 2.0 | 30 |
| IPS H4N03LA G   | SP000016331 | PG-TO251-3-11 | 25 | 0.0042 | 1.2 ... 2.0 | 90 |
| IPS H5N03LA G   | SP000064378 | PG-TO251-3-11 | 25 | 0.0052 | 1.2 ... 2.0 | 50 |
| IPS H6N03LA G   | SP000075257 | PG-TO251-3-11 | 25 | 0.0062 | 1.2 ... 2.0 | 50 |
| IPS H9N03LA G   | SP000223596 | PG-TO251-3-11 | 25 | 0.0092 | 1.2 ... 2.0 | 30 |
| IPI 04N03LA     | SP000014621 | P-TO251-3-21  | 25 | 0.0040 | 1.2 ... 2.0 | 50 |
| ▼ IPI 04N03LA G | SP000017593 | PG-TO251-3-21 | 25 | 0.0040 | 1.2 ... 2.0 | 50 |
| IPI 05N03LA     | SP000014903 | P-TO251-3-21  | 25 | 0.0053 | 1.2 ... 2.0 | 50 |
| ▼ IPI 05N03LA G | SP000017595 | PG-TO251-3-21 | 25 | 0.0053 | 1.2 ... 2.0 | 50 |
| IPI 06N03LA     | SP000014023 | P-TO251-3-21  | 25 | 0.0059 | 1.2 ... 2.0 | 50 |
| ▼ IPI 06N03LA G | SP000017594 | PG-TO251-3-21 | 25 | 0.0059 | 1.2 ... 2.0 | 50 |
| IPI 09N03LA     | SP000014033 | P-TO251-3-21  | 25 | 0.0088 | 1.2 ... 2.0 | 50 |
| ▼ IPI 09N03LA G | SP000017511 | PG-TO251-3-21 | 25 | 0.0088 | 1.2 ... 2.0 | 50 |
| IPI 10N03LA     | SP000014984 | P-TO251-3-21  | 25 | 0.0106 | 1.2 ... 2.0 | 30 |
| ▼ IPI 10N03LA G | SP000017597 | PG-TO251-3-21 | 25 | 0.0106 | 1.2 ... 2.0 | 30 |
| IPI 13N03LA     | SP000014030 | P-TO251-3-21  | 25 | 0.0130 | 1.2 ... 2.0 | 30 |
| ▼ IPI 13N03LA G | SP000017538 | PG-TO251-3-21 | 25 | 0.0130 | 1.2 ... 2.0 | 30 |
| IPI H6N03LA G   | SP000068594 | PG-TO251-3-21 | 25 | 0.0062 | 1.2 ... 2.0 | 50 |

SMD = Surface Mounted Device

| Type | Ordering Code | Package | Data     |              |              |       |
|------|---------------|---------|----------|--------------|--------------|-------|
|      |               |         | $V_{DS}$ | $R_{DS(on)}$ | $V_{GS(th)}$ | $I_D$ |
|      |               |         | V        | $\Omega$     | V            | A     |

## Power Transistors

### N-Channel Enhancement Types (OptiMOS® 2) Low Voltage MOSFETs 30 V

|                 |             |               |    |        |             |     |
|-----------------|-------------|---------------|----|--------|-------------|-----|
| ▼ BSC 022N03S G | SP000056189 | PG-TDSON-8    | 30 | 0.0022 | 1.2 ... 2.0 | 100 |
| ▼ BSC 027N03S G | SP000095462 | PG-TDSON-8    | 30 | 0.0027 | 1.2 ... 2.0 | 100 |
| BSC 032N03S     | SP000014714 | P-TDSON-8     | 30 | 0.0032 | 1.2 ... 2.0 | 100 |
| ▼ BSC 032N03S G | SP000056190 | PG-TDSON-8    | 30 | 0.0032 | 1.2 ... 2.0 | 100 |
| ▼ BSC 042N03S G | SP000056191 | PG-TDSON-8    | 30 | 0.0042 | 1.2 ... 2.0 | 95  |
| BSC 052N03S     | SP000014716 | P-TDSON-8     | 30 | 0.0052 | 1.2 ... 2.0 | 80  |
| ▼ BSC 052N03S G | SP000056192 | PG-TDSON-8    | 30 | 0.0052 | 1.2 ... 2.0 | 80  |
| BSC 059N03S     | SP000014717 | P-TDSON-8     | 30 | 0.0055 | 1.2 ... 2.0 | 73  |
| ▼ BSC 059N03S G | SP000056194 | PG-TDSON-8    | 30 | 0.0055 | 1.2 ... 2.0 | 73  |
| BSC 079N03S G   | SP000016414 | PG-TDSON-8    | 30 | 0.0079 | 1.2 ... 2.0 | 40  |
| BSC 094N03S G   | SP000016415 | PG-TDSON-8    | 30 | 0.0055 | 1.2 ... 2.0 | 35  |
| BSC 119N03S G   | SP000016416 | PG-TDSON-8    | 30 | 0.0055 | 1.2 ... 2.0 | 30  |
| ▼ BSO 052N03S G | SP000080998 | PG-DSO-8-1    | 30 | 0.0052 | 1.2 ... 2.0 | 17  |
| BSO 064N03S     | SP000014672 | P-DSO-8-1     | 30 | 0.0064 | 1.2 ... 2.0 | 16  |
| ▼ BSO 064N03S G | SP000077646 | PG-DSO-8-1    | 30 | 0.0064 | 1.2 ... 2.0 | 16  |
| BSO 072N03S     | SP000014673 | P-DSO-8-1     | 30 | 0.0068 | 1.2 ... 2.0 | 15  |
| ▼ BSO 072N03S G | SP000077647 | PG-DSO-8-1    | 30 | 0.0068 | 1.2 ... 2.0 | 15  |
| BSO 094N03S     | SP000014674 | P-DSO-8-1     | 30 | 0.0091 | 1.2 ... 2.0 | 13  |
| ▼ BSO 094N03S G | SP000077648 | PG-DSO-8-1    | 30 | 0.0091 | 1.2 ... 2.0 | 13  |
| BSO 104N03S     | SP000014675 | P-DSO-8-1     | 30 | 0.0097 | 1.2 ... 2.0 | 13  |
| ▼ BSO 104N03S G | SP000077649 | PG-DSO-8-1    | 30 | 0.0097 | 1.2 ... 2.0 | 13  |
| ▼ BSO 119N03S G | SP000077657 | PG-DSO-8-1    | 30 | 0.0119 | 1.2 ... 2.0 | 11  |
| BSO 150N03      | SP000014678 | P-DSO-8-1     | 30 | 0.0150 | 1.2 ... 2.0 | 9.1 |
| ▼ BSO 150N03    | SP000077687 | PG-DSO-8-1    | 30 | 0.0150 | 1.2 ... 2.0 | 9.1 |
| ▼ BSO 200N03    | SP000104683 | PG-DSO-8-1    | 30 | 0.0200 | 1.2 ... 2.0 | 7.9 |
| BSO 200N03S     | SP000014677 | P-DSO-8-1     | 30 | 0.0200 | 1.2 ... 2.0 | 8.8 |
| ▼ BSO 200N03S   | SP000077658 | PG-DSO-8-1    | 30 | 0.0200 | 1.2 ... 2.0 | 8.8 |
| BSO 300N03S     | SP000014572 | P-DSO-8-1     | 30 | 0.0300 | 1.2 ... 2.0 | 7.2 |
| ▼ BSO 300N03S   | SP000077644 | PG-DSO-8-1    | 30 | 0.0300 | 1.2 ... 2.0 | 7.2 |
| BSO 350N03S     | SP000014679 | P-DSO-8-1     | 30 | 0.0350 | 1.2 ... 2.0 | 6.0 |
| ▼ BSO 350N03S G | SP000080984 | PG-DSO-8-1    | 30 | 0.0350 | 1.2 ... 2.0 | 6.0 |
| IPB 03N03LB     | SP000074722 | P-TO263-3-2   | 30 | 0.0028 | 1.2 ... 2.0 | 80  |
| ▼ IPB 03N03LB G | SP000103300 | PG-TO263-3-2  | 30 | 0.0028 | 1.2 ... 2.0 | 80  |
| IPB 04N03LB     | SP000064219 | P-TO263-3-2   | 30 | 0.0035 | 1.2 ... 2.0 | 80  |
| ▼ IPB 04N03LB G | SP000103301 | PG-TO263-3-2  | 30 | 0.0035 | 1.2 ... 2.0 | 80  |
| ▼ IPD 05N03LB   | SP000065206 | P-TO263-3-2   | 30 | 0.0048 | 1.2 ... 2.0 | 90  |
| ▼ IPD 05N03LB G | SP000103303 | PG-TO263-3-2  | 30 | 0.0048 | 1.2 ... 2.0 | 90  |
| ▼ IPB 06N03LB   | SP000065274 | P-TO263-3-2   | 30 | 0.0063 | 1.2 ... 2.0 | 50  |
| ▼ IPB 06N03LB G | SP000103304 | PG-TO263-3-2  | 30 | 0.0063 | 1.2 ... 2.0 | 50  |
| IPB 10N03LB     | SP000064220 | P-TO263-3-2   | 30 | 0.0096 | 1.2 ... 2.0 | 50  |
| ▼ IPB 10N03LB G | SP000103305 | PG-TO263-3-2  | 30 | 0.0096 | 1.2 ... 2.0 | 50  |
| IPB 13N03LB     | SP000064218 | P-TO263-3-2   | 30 | 0.0125 | 1.2 ... 2.0 | 30  |
| ▼ IPB 13N03LB G | SP000103307 | PG-TO263-3-2  | 30 | 0.0125 | 1.2 ... 2.0 | 30  |
| IPD 03N03LB G   | SP000016408 | PG-TO252-3-11 | 30 | 0.0033 | 1.2 ... 2.0 | 90  |
| IPD 04N03LB G   | SP000016409 | PG-TO252-3-11 | 30 | 0.0041 | 1.2 ... 2.0 | 50  |

SMD = Surface Mounted Device

| Type | Ordering Code | Package | Data     |              |              |       |
|------|---------------|---------|----------|--------------|--------------|-------|
|      |               |         | $V_{DS}$ | $R_{DS(on)}$ | $V_{GS(th)}$ | $I_D$ |
|      |               |         | V        | $\Omega$     | V            | A     |

## Power Transistors

### N-Channel Enhancement Types (OptiMOS®2)

#### Low Voltage MOSFETs 30 V

(cont'd)

|                 |             |               |    |        |             |    |
|-----------------|-------------|---------------|----|--------|-------------|----|
| ▼ IPD 05N03LB G | SP000016410 | PG-TO252-3-11 | 30 | 0.0048 | 1.2 ... 2.0 | 90 |
| IPD 06N03LB G   | SP000016411 | PG-TO252-3-11 | 30 | 0.0061 | 1.2 ... 2.0 | 50 |
| IPD 09N03LB G   | SP000016412 | PG-TO252-3-11 | 30 | 0.0091 | 1.2 ... 2.0 | 50 |
| IPD 12N03LB     | SP000016413 | P-TO252-3-11  | 30 | 0.0116 | 1.2 ... 2.0 | 30 |
| ▼ IPD 12N03LB G | SP000017332 | PG-TO252-3-11 | 30 | 0.0116 | 1.2 ... 2.0 | 30 |
| IPP 03N03LB G   | SP000074721 | PG-TO220-3-1  | 30 | 0.0031 | 1.2 ... 2.0 | 80 |
| IPP 04N03LB G   | SP000064223 | PG-TO220-3-1  | 30 | 0.0038 | 1.2 ... 2.0 | 80 |
| IPP 05N03LB G   | SP000065247 | PG-TO220-3-1  | 30 | 0.0053 | 1.2 ... 2.0 | 80 |
| IPP 07N03LB G   | SP000065252 | PG-TO220-3-1  | 30 | 0.0065 | 1.2 ... 2.0 | 50 |
| IPP 10N03LB G   | SP000064222 | PG-TO220-3-1  | 30 | 0.0099 | 1.2 ... 2.0 | 50 |
| IPP 13N03LB G   | SP000064224 | PG-TO220-3-1  | 30 | 0.0128 | 1.2 ... 2.0 | 30 |
| ▼ IPS 03N03LB G | SP000220141 | PG-TO251-3-11 | 30 | 0.0028 | 1.2 ... 2.0 | 80 |
| ▼ IPS 04N03LB G | SP000219859 | PG-TO251-3-11 | 30 | 0.0041 | 1.2 ... 2.0 | 50 |
| ▼ IPS 05N03LB G | SP000220140 | PG-TO251-3-11 | 30 | 0.0048 | 1.2 ... 2.0 | 90 |
| ▼ IPS 09N03LB G | SP000220142 | PG-TO251-3-11 | 30 | 0.0091 | 1.2 ... 2.0 | 50 |
| ▼ IPS H6N03LB G | SP000220143 | PG-TO251-3-11 | 30 | 0.0090 | 1.2 ... 2.0 | 50 |
| ▼ IPU 04N03LB G | SP000220463 | PG-TO251-3-21 | 30 | 0.0038 | 1.2 ... 2.0 | 80 |
| ▼ IPU 06N03LB G | SP000209113 | PG-TO251-3-21 | 30 | 0.0061 | 1.2 ... 2.0 | 50 |
| ▼ IPU 09N03LB G | SP000209115 | PG-TO251-3-21 | 30 | 0.0091 | 1.2 ... 2.0 | 50 |
| ▼ IPU H6N03LB G | SP000209114 | PG-TO251-3-21 | 30 | 0.0090 | 1.2 ... 2.0 | 50 |

### N-Channel Enhancement Types (OptiMOS®2)

#### Low Voltage MOSFETs 85 V

|                 |             |               |    |        |             |     |
|-----------------|-------------|---------------|----|--------|-------------|-----|
| ▼ IPB 051NE8N G | SP000096445 | PG-TO263-3-2  | 85 | 0.0051 | 2.1 ... 4.0 | 100 |
| ▼ IPB 06CNE8N G | SP000096447 | PG-TO263-3-2  | 85 | 0.0062 | 2.1 ... 4.0 | 100 |
| ▼ IPB 08CNE8N G | SP000096449 | PG-TO263-3-2  | 85 | 0.0082 | 2.1 ... 4.0 | 95  |
| ▼ IPB 12CNE8N G | SP000096451 | PG-TO263-3-2  | 85 | 0.0129 | 2.1 ... 4.0 | 67  |
| ▼ IPB 16CNE8N G | SP000096453 | PG-TO263-3-2  | 85 | 0.0162 | 2.1 ... 4.0 | 53  |
| ▼ IPD 16CNE8N G | SP000096455 | PG-TO252-3-11 | 85 | 0.0162 | 2.1 ... 4.0 | 53  |
| ▼ IPD 25CNE8N G | SP000096457 | PG-TO252-3-11 | 85 | 0.0260 | 2.1 ... 4.0 | 35  |
| ▼ IPP 06CNE8N G | SP000096464 | PG-TO220-3-1  | 85 | 0.0062 | 2.1 ... 4.0 | 100 |
| ▼ IPP 08CNE8N G | SP000096466 | PG-TO220-3-1  | 85 | 0.0082 | 2.1 ... 4.0 | 95  |
| ▼ IPP 12CNE8N G | SP000096467 | PG-TO220-3-1  | 85 | 0.0129 | 2.1 ... 4.0 | 67  |
| ▼ IPP 054NE8N G | SP000096462 | PG-TO220-3-1  | 85 | 0.0051 | 2.1 ... 4.0 | 100 |
| ▼ IPP 16CNE8N G | SP000096470 | PG-TO220-3-1  | 85 | 0.0162 | 2.1 ... 4.0 | 53  |
| ▼ IPP 26CNE8N G | SP000096472 | PG-TO220-3-1  | 85 | 0.0250 | 2.1 ... 4.0 | 35  |

SMD = Surface Mounted Device

# Power Semiconductors

| Type | Ordering Code | Package | Data     |              |              |       |
|------|---------------|---------|----------|--------------|--------------|-------|
|      |               |         | $V_{DS}$ | $R_{DS(on)}$ | $V_{GS(th)}$ | $I_D$ |
|      |               |         | V        | $\Omega$     | V            | A     |

## Power Transistors

### N-Channel Enhancement Types (OptiMOS®2)

#### Low Voltage MOSFETs 100 V

|                 |             |               |     |        |             |     |
|-----------------|-------------|---------------|-----|--------|-------------|-----|
| ▼ IPB 05CN10N G | SP000096440 | PG-TO263-3-2  | 100 | 0.0054 | 2.1 ... 4.0 | 100 |
| ▼ IPB 06CN10N G | SP000096446 | PG-TO263-3-2  | 100 | 0.0065 | 2.1 ... 4.0 | 100 |
| ▼ IPB 08CN10N G | SP000096448 | PG-TO263-3-2  | 100 | 0.0085 | 2.1 ... 4.0 | 95  |
| ▼ IPB 12CN10N G | SP000096450 | PG-TO263-3-2  | 100 | 0.0129 | 2.1 ... 4.0 | 67  |
| ▼ IPB 16CN10N G | SP000096452 | PG-TO263-3-2  | 100 | 0.0165 | 2.1 ... 4.0 | 53  |
| ▼ IPD 16CN10N G | SP000096454 | PG-TO252-3-11 | 100 | 0.0165 | 2.1 ... 4.0 | 53  |
| ▼ IPD 25CN10N G | SP000096456 | PG-TO252-3-11 | 100 | 0.0250 | 2.1 ... 4.0 | 25  |
| ▼ IPD 33CN10N G | SP000096458 | PG-TO252-3-11 | 100 | 0.0330 | 2.1 ... 4.0 | 27  |
| ▼ IPD 49CN10N G | SP000096459 | PG-TO252-3-11 | 100 | 0.0490 | 2.1 ... 4.0 | 20  |
| ▼ IPD 64CN10N G | SP000104811 | PG-TO252-3-11 | 100 | 0.0640 | 2.1 ... 4.0 | 17  |
| ▼ IPD 78CN10N G | SP000096460 | PG-TO252-3-11 | 100 | 0.0780 | 2.1 ... 4.0 | 13  |
| ▼ IPP 05CN10N G | SP000096461 | PG-TO220-3-1  | 100 | 0.0051 | 2.1 ... 4.0 | 100 |
| ▼ IPP 06CN10N G | SP000096463 | PG-TO220-3-1  | 100 | 0.0065 | 2.1 ... 4.0 | 100 |
| ▼ IPP 08CN10N G | SP000096465 | PG-TO220-3-1  | 100 | 0.0085 | 2.1 ... 4.0 | 95  |
| ▼ IPP 12CN10N G | SP000096468 | PG-TO220-3-1  | 100 | 0.0129 | 2.1 ... 4.0 | 67  |
| ▼ IPP 16CN10N G | SP000096469 | PG-TO220-3-1  | 100 | 0.0165 | 2.1 ... 4.0 | 53  |
| ▼ IPP 26CN10N G | SP000096471 | PG-TO220-3-1  | 100 | 0.0260 | 2.1 ... 4.0 | 35  |
| ▼ IPP 50CN10N G | SP000096474 | PG-TO220-3-1  | 100 | 0.0500 | 2.1 ... 4.0 | 20  |

3

SMD = Surface Mounted Device

# Power Semiconductors

| Type | Ordering Code | Package | Data     |              |              |       |
|------|---------------|---------|----------|--------------|--------------|-------|
|      |               |         | $V_{DS}$ | $R_{DS(on)}$ | $V_{GS(th)}$ | $I_D$ |
|      |               |         | V        | $\Omega$     | V            | A     |

## Power Transistors

### N-Channel Enhancement Types (OptiMOS®-T)

#### Low Voltage MOSFETs 55 V MOSFETs

|                    |             |              |    |        |             |     |
|--------------------|-------------|--------------|----|--------|-------------|-----|
| ▼ IPB 25N06S3L-22  | SP000087994 | PG-TO263-3-2 | 55 | 0.0210 | 1.2 ... 2.2 | 25  |
| ▼ IPB 25N06S3-25   | SP000088000 | PG-TO263-3-2 | 55 | 0.0250 | 2.1 ... 4.0 | 25  |
| ▼ IPB 77N06S3-09   | SP000088715 | PG-TO263-3-2 | 55 | 0.0088 | 2.1 ... 4.0 | 77  |
| ▼ IPB 80N06S3-07   | SP000088065 | PG-TO263-3-2 | 55 | 0.0065 | 2.1 ... 4.0 | 80  |
| ▼ IPB 80N06S3L-06  | SP000088004 | PG-TO263-3-2 | 55 | 0.0056 | 1.2 ... 2.2 | 80  |
| ▼ IPB 100N06S3-03  | SP000087982 | PG-TO263-3-2 | 55 | 0.0030 | 2.1 ... 4.0 | 100 |
| ▼ IPB 100N06S3L-03 | SP000087978 | PG-TO263-3-2 | 55 | 0.0027 | 1.2 ... 2.2 | 100 |
| ▼ IPB 100N06S3L-04 | SP000102219 | PG-TO263-3-2 | 55 | 0.0038 | 1.2 ... 2.2 | 100 |
| ▼ IPI 25N06S3L-22  | SP000087996 | PG-TO262-3-1 | 55 | 0.0021 | 1.2 ... 2.2 | 25  |
| ▼ IPI 25N06S3-25   | SP000087997 | PG-TO262-3-1 | 55 | 0.0025 | 2.1 ... 4.0 | 25  |
| ▼ IPI 77N06S3-09   | SP000088716 | PG-TO262-3-1 | 55 | 0.0088 | 2.1 ... 4.0 | 77  |
| ▼ IPI 80N06S3-07   | SP000088064 | PG-TO262-3-1 | 55 | 0.0065 | 2.1 ... 4.0 | 80  |
| ▼ IPI 80N06S3L-06  | SP000088002 | PG-TO262-3-1 | 55 | 0.0056 | 1.2 ... 2.2 | 80  |
| ▼ IPI 80N06S3L-08  | SP000088131 | PG-TO262-3-1 | 55 | 0.0076 | 1.2 ... 2.2 | 80  |
| ▼ IPI 100N06S3-03  | SP000087992 | PG-TO262-3-1 | 55 | 0.0030 | 2.1 ... 4.0 | 100 |
| ▼ IPI 100N06S3L-03 | SP000087979 | PG-TO262-3-1 | 55 | 0.0027 | 1.2 ... 2.2 | 100 |
| ▼ IPI 100N06S3L-04 | SP000102211 | PG-TO262-3-1 | 55 | 0.0038 | 1.2 ... 2.2 | 100 |
| ▼ IPP 25N06S3L-22  | SP000087993 | PG-TO220-3-1 | 55 | 0.0021 | 1.2 ... 2.2 | 25  |
| ▼ IPP 25N06S3-25   | SP000088001 | PG-TO220-3-1 | 55 | 0.0025 | 2.1 ... 4.0 | 25  |
| ▼ IPP 77N06S3-09   | SP000088717 | PG-TO220-3-1 | 55 | 0.0088 | 2.1 ... 4.0 | 77  |
| ▼ IPP 80N06S3-07   | SP000088067 | PG-TO220-3-1 | 55 | 0.0065 | 2.1 ... 4.0 | 80  |
| ▼ IPP 80N06S3L-06  | SP000088006 | PG-TO220-3-1 | 55 | 0.0056 | 1.2 ... 2.2 | 80  |
| ▼ IPP 80N06S3L-08  | SP000088127 | PG-TO220-3-1 | 55 | 0.0076 | 1.2 ... 2.2 | 80  |
| ▼ IPP 100N06S3-03  | SP000087980 | PG-TO220-3-1 | 55 | 0.0030 | 2.1 ... 4.0 | 100 |
| ▼ IPP 100N06S3L-03 | SP000087977 | PG-TO220-3-1 | 55 | 0.0027 | 1.2 ... 2.2 | 100 |
| ▼ IPP 100N06S3L-04 | SP000102209 | PG-TO220-3-1 | 55 | 0.0038 | 1.2 ... 2.2 | 100 |

### N-Channel Enhancement Types (Buck Converter Series)

#### Low Voltage MOSFETs 30 V MOSFETs

|                |             |               |    |        |             |    |
|----------------|-------------|---------------|----|--------|-------------|----|
| IPD 20N03L     | SP000016259 | P-TO252-3-11  | 30 | 0.0200 | 1.2 ... 2.0 | 30 |
| ▼ IPD 20N03L G | SP000017603 | PG-TO252-3-11 | 30 | 0.0200 | 1.2 ... 2.0 | 30 |
| IPP 21N03L G   | SP000065079 | P-TO220-3-1   | 30 | 0.0210 | 1.2 ... 2.0 | 30 |
| IPS 20N03L G   | SP000064380 | PG-TO251-3-11 | 30 | 0.0200 | 1.2 ... 2.0 | 30 |
| ▼ IPU 20N03L G | SP000018246 | PG-TO251-3-1  | 30 | 0.0200 | 1.2 ... 2.0 | 30 |

SMD = Surface Mounted Device

# Power Semiconductors

| Type | Ordering Code | Package | Data     |              |              |       |
|------|---------------|---------|----------|--------------|--------------|-------|
|      |               |         | $V_{DS}$ | $R_{DS(on)}$ | $V_{GS(th)}$ | $I_D$ |
|      |               |         | V        | $\Omega$     | V            | A     |

## Power Transistors

### P-Channel Enhancement Types (OptiMOS®) Low Voltage MOSFETs -20 V to -30 V

|                |             |              |      |       |                 |        |
|----------------|-------------|--------------|------|-------|-----------------|--------|
| BSA 223SP      | SP000014171 | SC75         | - 20 | 1.200 | - 1.2 ... - 0.6 | - 0.39 |
| BSD 223P       | SP000013661 | SOT363       | - 20 | 1.200 | - 1.2 ... - 0.6 | - 0.35 |
| BSL 207SP      | SP000012582 | TSOP-6-1     | - 20 | 0.045 | - 1.2 ... - 0.6 | - 15.6 |
| ▼ BSL 207SP G  | SP000095796 | TSOP-6-1     | - 20 | 0.045 | - 1.2 ... - 0.6 | - 15.6 |
| BSL 211SP      | SP000012580 | TSOP-6-1     | - 20 | 0.067 | - 1.2 ... - 0.6 | - 15.9 |
| ▼ BSL 211SP G  | SP000095797 | TSOP-6-1     | - 20 | 0.067 | - 1.2 ... - 0.6 | - 15.9 |
| BSO 201SP      | SP000012578 | P-DSO-8-1    | - 20 | 0.008 | - 1.2 ... - 0.6 | - 14.9 |
| BSO 203P       | SP000012572 | P-DSO-8-1    | - 20 | 0.021 | - 1.2 ... - 0.6 | - 9.0  |
| BSO 203SP      | SP000012579 | P-DSO-8-1    | - 20 | 0.021 | - 1.2 ... - 0.6 | - 8.2  |
| BSO 204P       | SP000013487 | P-DSO-8-1    | - 20 | 0.030 | - 1.2 ... - 0.6 | - 23.9 |
| BSO 207P       | SP000012573 | P-DSO-8-1    | - 20 | 0.045 | - 1.2 ... - 0.6 | - 5.7  |
| BSO 211P       | SP000012623 | P-DSO-8-1    | - 20 | 0.067 | - 1.2 ... - 0.6 | - 4.7  |
| BSO 301SP      | SP000012583 | P-DSO-8-1    | - 30 | 0.008 | - 2.0 ... - 1.0 | - 14.9 |
| BSO 303P       | SP000012622 | P-DSO-8-1    | - 30 | 0.021 | - 2.0 ... - 1.0 | - 8.2  |
| BSO 303SP      | SP000014019 | P-DSO-8-1    | - 30 | 0.021 | - 2.0 ... - 1.0 | - 8.9  |
| BSS 209PW      | SP000013478 | SOT323       | - 20 | 0.55  | - 1.2 ... - 0.6 | - 0.58 |
| BSS 223PW      | SP000013479 | SOT323       | - 20 | 1.20  | - 1.2 ... - 0.6 | - 0.39 |
| BSV 236 SP     | SP000013480 | SOT363       | - 20 | 0.175 | - 1.2 ... - 0.6 | - 0.15 |
| BSL 307SP      | SP000012585 | TSOP-6-1     | - 30 | 0.043 | - 2.0 ... - 1.0 | - 23.4 |
| ▼ BSL 307SP G  | SP000095798 | TSOP-6-1     | - 30 | 0.043 | - 2.0 ... - 1.0 | - 23.4 |
| BSO 080P03S    | SP000014958 | P-DSO-8-1    | - 30 | 0.008 | - 2.2 ... - 1.0 | - 14.9 |
| BSO 130P03S    | SP000014729 | P-DSO-8-1    | - 30 | 0.013 | - 2.2 ... - 1.0 | - 11.3 |
| BSO 200P03S    | SP000014959 | P-DSO-8-1    | - 30 | 0.020 | - 2.2 ... - 1.0 | - 9.1  |
| SPD 50P03L     | SP000012624 | P-TO252-3-1  | - 30 | 0.007 | - 2.0 ... - 1.0 | - 50   |
| ▼ SPD 50P03L G | SP000086729 | PG-TO252-3-1 | - 30 | 0.007 | - 2.0 ... - 1.0 | - 50   |

SMD = Surface Mounted Device

# Power Semiconductors

| Type | Ordering Code | Package | Data     |              |              |       |
|------|---------------|---------|----------|--------------|--------------|-------|
|      |               |         | $V_{DS}$ | $R_{DS(on)}$ | $V_{GS(th)}$ | $I_D$ |
|      |               |         | V        | $\Omega$     | V            | A     |

## Power Transistors

### P-Channel Enhancement Types (SIPMOS®) Low Voltage MOSFETs -60 V to -250 V

|                    |             |              |       |       |                 |        |
|--------------------|-------------|--------------|-------|-------|-----------------|--------|
| BSO 613SPV         | SP000012847 | P-DSO-8-5    | - 60  | 0.13  | - 4.0 ... - 2.1 | - 3.44 |
| ▼ BSO 613SPV G     | SP000216309 | PG-DSO-8-5   | - 60  | 0.13  | - 4.0 ... - 2.1 | - 3.44 |
| BSP 170P           | SP000012133 | SOT223       | - 60  | 0.30  | - 4.0 ... - 2.1 | - 1.9  |
| ▼ BSP 170P G       | SP000089225 | SOT223       | - 60  | 0.30  | - 4.0 ... - 2.1 | - 1.9  |
| BSP 171P           | SP000012134 | SOT223       | - 60  | 0.30  | - 2.0 ... - 4.0 | - 1.8  |
| ▼ BSP 171P G       | SP000089226 | SOT223       | - 60  | 0.30  | - 2.0 ... - 4.0 | - 1.8  |
| BSP 315P           | SP000012319 | SOT223       | - 60  | 0.80  | - 2.0 ... - 4.0 | - 1.17 |
| ▼ BSP 315P G       | SP000089221 | SOT223       | - 60  | 0.80  | - 2.0 ... - 4.0 | - 1.17 |
| BSP 613P           | SP000012301 | SOT223       | - 60  | 0.13  | - 4.0 ... - 2.1 | - 2.9  |
| ▼ BSP 613P G       | SP000089224 | SOT223       | - 60  | 0.13  | - 4.0 ... - 2.1 | - 2.9  |
| BSS 83P            | SP000012075 | SOT223       | - 60  | 2.00  | - 2.0 ... - 4.0 | - 0.33 |
| BSS 84P E-6327     | SP000012321 | SOT223       | - 60  | 8.00  | - 2.0 ... - 4.0 | - 0.17 |
| ▼ BSS 84P G E-6327 | SP000082879 | SOT223       | - 60  | 8.00  | - 2.0 ... - 4.0 | - 0.17 |
| ▼ BSS 84P E-6433   | SP000012323 | SOT223       | - 60  | 8.00  | - 2.0 ... - 4.0 | - 0.17 |
| BSS 84PW           | SP000013078 | SOT323       | - 60  | 8.00  | - 2.0 ... - 4.0 | - 0.17 |
| SPB 08P06P         | SP000012508 | P-TO263-3-2  | - 60  | 0.30  | - 4.0 ... - 2.1 | - 8.8  |
| ▼ SPB 08P06P G     | SP000102179 | PG-TO263-3-2 | - 60  | 0.30  | - 4.0 ... - 2.1 | - 8.8  |
| SPB 18P06P         | SP000012329 | P-TO263-3-2  | - 60  | 0.30  | - 4.0 ... - 2.1 | - 8.8  |
| ▼ SPB 18P06P G     | SP000102181 | PG-TO263-3-2 | - 60  | 0.30  | - 4.0 ... - 2.1 | - 8.8  |
| SPB 80P06P         | SP000012841 | P-TO263-3-2  | - 60  | 0.20  | - 4.0 ... - 2.1 | - 80   |
| ▼ SPB 80P06P G     | SP000096088 | PG-TO263-3-2 | - 60  | 0.20  | - 4.0 ... - 2.1 | - 80   |
| SPD 08P06P         | SP000077441 | P-TO252-3-1  | - 60  | 0.30  | - 4.0 ... - 2.1 | - 8.8  |
| ▼ SPD 08P06P G     | SP000096087 | PG-TO252-3-1 | - 60  | 0.30  | - 4.0 ... - 2.1 | - 8.8  |
| SPD 09P06PL        | SP000012549 | P-TO252-3-1  | - 60  | 0.25  | - 4.0 ... - 2.1 | - 9.7  |
| ▼ SPD 09P06PL G    | SP000077442 | PG-TO252-3-1 | - 60  | 0.25  | - 4.0 ... - 2.1 | - 9.7  |
| SPD 18P06P         | SP000012298 | P-TO252-3-1  | - 60  | 0.13  | - 4.0 ... - 2.1 | - 18.8 |
| ▼ SPD 18P06P G     | SP000077440 | PG-TO252-3-1 | - 60  | 0.13  | - 4.0 ... - 2.1 | - 18.8 |
| SPD 30P06P         | SP000012842 | P-TO252-3-1  | - 60  | 0.075 | - 4.0 ... - 2.1 | - 30   |
| ▼ SPD 30P06P G     | SP000077529 | PG-TO252-3-1 | - 60  | 0.075 | - 4.0 ... - 2.1 | - 30   |
| SPP 08P06P         | SP000012085 | P-TO220-3-1  | - 60  | 0.30  | - 4.0 ... - 2.1 | - 8.8  |
| SPP 18P06P         | SP000012300 | P-TO220-3-1  | - 60  | 0.13  | - 4.0 ... - 2.1 | - 18.8 |
| SPP 80P06P         | SP000012840 | P-TO220-3-1  | - 60  | 0.023 | - 4.0 ... - 2.1 | - 80   |
| SPU 08P06P         | SP000012086 | P-TO251-3-1  | - 60  | 0.30  | - 4.0 ... - 2.1 | - 8.8  |
| SPU 09P06PL        | SP000012876 | P-TO251-3-1  | - 60  | 0.25  | - 4.0 ... - 2.1 | - 9.7  |
| SPU 18P06P         | SP000012303 | P-TO251-3-1  | - 60  | 0.13  | - 4.0 ... - 2.1 | - 18.6 |
| SPU 30P06P         | SP000012844 | P-TO251-3-1  | - 60  | 0.075 | - 4.0 ... - 2.1 | - 30   |
| BSP 316P           | SP000014249 | SOT223       | - 100 | 2.20  | - 2.0 ... - 0.8 | - 0.65 |
| ▼ BSP 316P G       | SP000089222 | SOT223       | - 100 | 2.20  | - 2.0 ... - 0.8 | - 0.65 |
| SPP 15P10P         | SP000014331 | P-TO220-3-1  | - 100 | 0.24  | - 4.0 ... - 2.1 | - 15   |
| ▼ SPP 15P10P G     | SP000212313 | PG-TO220-3-1 | - 100 | 0.24  | - 4.0 ... - 2.1 | - 15   |
| BSP 317P           | SP000014250 | SOT223       | - 200 | 6     | - 2.0 ... - 0.8 | - 0.37 |
| ▼ BSP 317P G       | SP000089220 | SOT223       | - 200 | 6     | - 2.0 ... - 0.8 | - 0.37 |
| BSP 92P            | SP000014253 | SOT223       | - 240 | 20    | - 2.0 ... - 0.8 | - 0.2  |
| ▼ BSP 92P G        | SP000089223 | SOT223       | - 240 | 20    | - 2.0 ... - 0.8 | - 0.2  |
| BSS 192P           | SP000014329 | SOT89        | - 240 | 20    | - 2.0 ... - 0.8 | - 0.15 |
| ▼ BSS 192P G       | SP000095795 | SOT89        | - 240 | 20    | - 2.0 ... - 0.8 | - 0.15 |

SMD = Surface Mounted Device

# Power Semiconductors

| Type | Ordering Code | Package | Data     |              |              |       |
|------|---------------|---------|----------|--------------|--------------|-------|
|      |               |         | $V_{DS}$ | $R_{DS(on)}$ | $V_{GS(th)}$ | $I_D$ |
|      |               |         | V        | $\Omega$     | V            | A     |

## Power Transistors

### N-Channel Depletion Types MOSFETs (SIPMOS®)

|                    |             |        |     |     |                 |       |
|--------------------|-------------|--------|-----|-----|-----------------|-------|
| BSS 159N           | SP000014638 | SOT23  | 60  | 8   | – 3.5 ... – 2.4 | 0.13  |
| BSS 159N E-6906    | SP000055412 | SOT23  | 60  | 8   | sorted in bands | 0.13  |
| BSS 169            | SP000011172 | SOT23  | 100 | 12  | – 2.9 ... – 1.8 | 0.09  |
| BSS 169 E-6906     | SP000055416 | SOT23  | 100 | 12  | sorted in bands | 0.09  |
| BSP 149            | SP000011104 | SOT223 | 200 | 3.5 | – 2.1 ... – 1.0 | 0.14  |
| ▼ BSP 149 G        | SP000089214 | SOT223 | 200 | 3.5 | – 2.1 ... – 1.0 | 0.14  |
| ▼ BSP 149 E-6906   | SP000055414 | SOT223 | 200 | 3.5 | sorted in bands | 0.14  |
| ▼ BSP 149 G E-6906 | SP000089215 | SOT223 | 200 | 3.5 | sorted in bands | 0.14  |
| BSP 129            | SP000011102 | SOT223 | 240 | 6   | – 2.1 ... – 1.0 | 0.05  |
| ▼ BSP 129 G        | SP000089218 | SOT223 | 240 | 6   | – 2.1 ... – 1.0 | 0.05  |
| ▼ BSP 129 G E-6906 | SP000089219 | SOT223 | 240 | 6   | sorted in bands | 0.05  |
| BSS 139            | SP000011170 | SOT23  | 250 | 30  | – 2.1 ... – 1.0 | 0.03  |
| BSS 139 E-6906     | SP000055415 | SOT23  | 250 | 30  | sorted in bands | 0.03  |
| BSP 135            | SP000011103 | SOT223 | 600 | 60  | – 2.1 ... – 1.0 | 0.02  |
| ▼ BSP 135 G        | SP000089206 | SOT223 | 600 | 60  | – 2.1 ... – 1.0 | 0.02  |
| BSP 135 E-6906     | SP000055417 | SOT223 | 600 | 60  | sorted in bands | 0.02  |
| ▼ BSP 135 G E-6906 | SP000089207 | SOT223 | 600 | 60  | sorted in bands | 0.02  |
| BSS 126 G          | SP000055447 | SOT23  | 600 | 500 | – 2.7 ... – 1.6 | 0.007 |
| BSS 126 G E-6906   | SP000055448 | SOT23  | 600 | 500 | sorted in bands | 0.007 |

### Complementary N/P-Channel Enhancement Types (SIPMOS®) Low Voltage MOSFETs

|               |             |            |      |      |                 |       |
|---------------|-------------|------------|------|------|-----------------|-------|
| BSO 612CV     | SP000012292 | P-DSO-8-5  | 60   | 0.12 | 2.1 ... 4.0     | 3.1   |
|               |             |            | – 60 | 0.30 | – 4.0 ... – 2.1 | – 2.0 |
| ▼ BSO 612CV G | SP000216307 | PG-DSO-8-5 | 60   | 0.12 | 2.1 ... 4.0     | 3.1   |
|               |             |            | – 60 | 0.30 | – 4.0 ... – 2.1 | – 2.0 |
| BSO 615C      | SP000011972 | P-DSO-8-5  | 60   | 0.11 | 1.2 ... 2.0     | 3.2   |
|               |             |            | – 60 | 0.30 | – 2.0 ... – 1.0 | – 2.0 |
| ▼ BSO 615C G  | SP000216311 | PG-DSO-8-5 | 60   | 0.11 | 1.2 ... 2.0     | 3.2   |
|               |             |            | – 60 | 0.30 | – 2.0 ... – 1.0 | – 2.0 |

SMD = Surface Mounted Device

# Power Semiconductors

| Type | Ordering Code | Package | Data     |              |              |       |
|------|---------------|---------|----------|--------------|--------------|-------|
|      |               |         | $V_{DS}$ | $R_{DS(on)}$ | $V_{GS(th)}$ | $I_D$ |
|      |               |         | V        | $\Omega$     | V            | A     |

## Power Transistors

### N-Channel SIPMOS Small-Signal Transistors High Voltage 400 V

|             |             |        |     |    |             |      |
|-------------|-------------|--------|-----|----|-------------|------|
| BSP 298     | SP000011109 | SOT223 | 400 | 3  | 2.1 ... 4.0 | 0.50 |
| ▼ BSP 298 G | SP000088258 | SOT223 | 400 | 3  | 2.1 ... 4.0 | 0.50 |
| BSP 324     | SP000011117 | SOT223 | 400 | 25 | 1.5 ... 2.5 | 0.17 |
| ▼ BSP 324 G | SP000089203 | SOT223 | 400 | 25 | 1.5 ... 2.5 | 0.17 |

### N-Channel SIPMOS Small-Signal Transistors High Voltage 500 V

|             |             |        |     |   |             |      |
|-------------|-------------|--------|-----|---|-------------|------|
| BSP 299     | SP000011110 | SOT223 | 500 | 4 | 2.1 ... 4.0 | 0.40 |
| ▼ BSP 299 G | SP000089200 | SOT223 | 500 | 4 | 2.1 ... 4.0 | 0.40 |

### N-Channel SIPMOS Small-Signal Transistors High Voltage 600 V

|                    |             |        |     |     |             |       |
|--------------------|-------------|--------|-----|-----|-------------|-------|
| BSP 125            | SP000011100 | SOT223 | 600 | 45  | 1.5 ... 2.5 | 0.120 |
| ▼ BSP 125 G        | SP000089204 | SOT223 | 600 | 45  | 1.5 ... 2.5 | 0.120 |
| BSP 125 E-6433     | SP000011101 | SOT223 | 600 | 45  | 1.5 ... 2.5 | 0.120 |
| ▼ BSP 125 G E-6433 | SP000089211 | SOT223 | 600 | 45  | 1.5 ... 2.5 | 0.120 |
| BSS 127 G          | SP000056646 | SOT23  | 600 | 500 | 1.4 ... 2.6 | 0.023 |
| BSS 225            | SP000017502 | SOT89  | 600 | 45  | 1.3 ... 2.3 | 0.090 |
| ▼ BSS 225 G        | SP000095776 | SOT89  | 600 | 45  | 1.3 ... 2.3 | 0.090 |

### N-Channel SIPMOS Small-Signal Transistors High Voltage 800 V

|             |             |        |     |    |             |      |
|-------------|-------------|--------|-----|----|-------------|------|
| BSP 300     | SP000011111 | SOT223 | 800 | 20 | 2.0 ... 4.0 | 0.19 |
| ▼ BSP 300 G | SP000089201 | SOT223 | 800 | 20 | 2.0 ... 4.0 | 0.19 |

### N-Channel SIPMOS MOSFETs High Voltage 800 V

|          |             |             |     |     |             |      |
|----------|-------------|-------------|-----|-----|-------------|------|
| ▼ BUZ 81 | SP000016235 | P-TO220-3-1 | 800 | 2.5 | 2.4 ... 4.0 | 4.00 |
|----------|-------------|-------------|-----|-----|-------------|------|

SMD = Surface Mounted Device

# Power Semiconductors

| Type | Ordering Code | Package | Data     |              |              |       |
|------|---------------|---------|----------|--------------|--------------|-------|
|      |               |         | $V_{DS}$ | $R_{DS(on)}$ | $V_{GS(th)}$ | $I_D$ |
|      |               |         | V        | $\Omega$     | V            | A     |

## Power Transistors

### N-Channel CoolMOS™ MOSFETs High Voltage 500 V

|               |             |               |     |      |             |       |
|---------------|-------------|---------------|-----|------|-------------|-------|
| SPA 04N50C3   | SP000216298 | PG-TO220-3-31 | 500 | 0.95 | 2.1 ... 3.9 | 4.50  |
| SPA 08N50C3   | SP000216306 | PG-TO220-3-31 | 500 | 0.60 | 2.1 ... 3.9 | 7.60  |
| SPA 12N50C3   | SP000216322 | PG-TO220-3-31 | 500 | 0.38 | 2.1 ... 3.9 | 11.60 |
| SPA 16N50C3   | SP000216351 | PG-TO220-3-31 | 500 | 0.28 | 2.1 ... 3.9 | 16.00 |
| SPA 21N50C3   | SP000216364 | PG-TO220-3-31 | 500 | 0.19 | 2.1 ... 3.9 | 21.00 |
| SPB 04N50C3   | SP000014477 | P-TO263-3-2   | 500 | 0.95 | 2.1 ... 3.9 | 4.50  |
| SPB 12N50C3   | SP000014894 | P-TO263-3-2   | 500 | 0.38 | 2.1 ... 3.9 | 11.60 |
| SPB 16N50C3   | SP000014895 | P-TO263-3-2   | 500 | 0.28 | 2.1 ... 3.9 | 16.00 |
| SPB 21N50C3   | SP000013833 | P-TO263-3-2   | 500 | 0.19 | 2.1 ... 3.9 | 21.00 |
| SPD 02N50C3   | SP000014476 | PG-TO252-3-1  | 500 | 3.00 | 2.1 ... 3.9 | 1.80  |
| SPD 03N50C3   | SP000014289 | PG-TO252-3-1  | 500 | 1.40 | 2.1 ... 3.9 | 3.20  |
| SPD 04N50C3   | SP000014479 | P-TO252-3-1   | 500 | 0.95 | 2.1 ... 3.9 | 4.50  |
| ▼ SPD 04N50C3 | SP000077609 | PG-TO252-3-1  | 500 | 0.95 | 2.1 ... 3.9 | 4.50  |
| SPD 08N50C3   | SP000013835 | P-TO252-3-1   | 500 | 0.60 | 2.1 ... 3.9 | 7.60  |
| SPI 08N50C3   | SP000014461 | PG-TO262-3-1  | 500 | 0.60 | 2.1 ... 3.9 | 7.60  |
| SPI 12N50C3   | SP000014467 | PG-TO262-3-1  | 500 | 0.38 | 2.1 ... 3.9 | 11.60 |
| SPI 16N50C3   | SP000014470 | PG-TO262-3-1  | 500 | 0.28 | 2.1 ... 3.9 | 16.00 |
| SPI 21N50C3   | SP000014463 | PG-TO262-3-1  | 500 | 0.19 | 2.1 ... 3.9 | 21.00 |
| SPP 04N50C3   | SP000014478 | P-TO220-3-1   | 500 | 0.95 | 2.1 ... 3.9 | 4.50  |
| SPP 08N50C3   | SP000013834 | P-TO220-3-1   | 500 | 0.60 | 2.1 ... 3.9 | 7.60  |
| SPP 12N50C3   | SP000014459 | P-TO220-3-1   | 500 | 0.38 | 2.1 ... 3.9 | 11.60 |
| SPP 16N50C3   | SP000014460 | P-TO220-3-1   | 500 | 0.28 | 2.1 ... 3.9 | 16.00 |
| SPP 21N50C3   | SP000013832 | P-TO220-3-1   | 500 | 0.19 | 2.1 ... 3.9 | 21.00 |
| SPW 12N50C3   | SP000014469 | PG-TO247-3-1  | 500 | 0.38 | 2.1 ... 3.9 | 11.60 |
| SPW 16N50C3   | SP000014472 | PG-TO247-3-1  | 500 | 0.28 | 2.1 ... 3.9 | 16.00 |
| SPW 21N50C3   | SP000014464 | PG-TO247-3-1  | 500 | 0.19 | 2.1 ... 3.9 | 21.00 |
| SPW 32N50C3   | SP000014625 | PG-TO247-3-1  | 500 | 0.11 | 2.1 ... 3.9 | 32.00 |
| SPW 52N50C3   | SP000014626 | PG-TO247-3-1  | 500 | 0.07 | 2.1 ... 3.9 | 52.00 |

SMD = Surface Mounted Device

# Power Semiconductors

| Type | Ordering Code | Package | Data     |              |              |       |
|------|---------------|---------|----------|--------------|--------------|-------|
|      |               |         | $V_{DS}$ | $R_{DS(on)}$ | $V_{GS(th)}$ | $I_D$ |
|      |               |         | V        | $\Omega$     | V            | A     |

## Power Transistors

### N-Channel CoolMOS™ MOSFETs High Voltage 600 V

|               |             |               |     |      |             |       |
|---------------|-------------|---------------|-----|------|-------------|-------|
| SPA 03N60C3   | SP000216296 | PG-TO220-3-31 | 600 | 1.40 | 2.1 ... 3.9 | 3.20  |
| SPA 04N60C3   | SP000216299 | PG-TO220-3-31 | 600 | 0.95 | 2.1 ... 3.9 | 3.30  |
| SPA 06N60C3   | SP000216301 | PG-TO220-3-31 | 600 | 0.75 | 2.1 ... 3.9 | 6.20  |
| SPA 07N60C3   | SP000216303 | PG-TO220-3-31 | 600 | 0.60 | 2.1 ... 3.9 | 7.30  |
| SPA 11N60C3   | SP000216312 | PG-TO220-3-31 | 600 | 0.38 | 2.1 ... 3.9 | 5.50  |
| SPA 15N60C3   | SP000216325 | PG-TO220-3-31 | 600 | 0.28 | 2.1 ... 3.9 | 15.00 |
| SPA 20N60C3   | SP000216354 | PG-TO220-3-31 | 600 | 0.19 | 2.1 ... 3.9 | 8.10  |
| SPB 02N60C3   | SP000013516 | P-TO263-3-2   | 600 | 3.00 | 3.5 ... 5.5 | 2.00  |
| SPB 02N60S5   | SP000012388 | P-TO263-3-2   | 600 | 3.00 | 2.1 ... 3.9 | 1.80  |
| SPB 03N60C3   | SP000013517 | P-TO263-3-2   | 600 | 1.40 | 2.1 ... 3.9 | 3.20  |
| SPB 03N60S5   | SP000012341 | P-TO263-3-2   | 600 | 1.40 | 3.5 ... 5.5 | 3.00  |
| SPB 04N60C3   | SP000013533 | P-TO263-3-2   | 600 | 0.95 | 2.1 ... 3.9 | 4.50  |
| SPB 04N60S5   | SP000012364 | P-TO263-3-2   | 600 | 0.95 | 3.5 ... 5.5 | 4.00  |
| SPB 07N60C3   | SP000013518 | P-TO263-3-2   | 600 | 0.60 | 2.1 ... 3.9 | 7.30  |
| SPB 07N60S5   | SP000012111 | P-TO263-3-2   | 600 | 0.60 | 3.5 ... 5.5 | 7.00  |
| SPB 11N60C3   | SP000013519 | P-TO263-3-2   | 600 | 0.38 | 2.1 ... 3.9 | 11.00 |
| SPB 11N60S5   | SP000012373 | P-TO263-3-2   | 600 | 0.38 | 3.5 ... 5.5 | 11.00 |
| SPB 20N60C3   | SP000013520 | P-TO263-3-2   | 600 | 0.19 | 2.1 ... 3.9 | 20.00 |
| SPB 20N60S5   | SP000012112 | P-TO263-3-2   | 600 | 0.19 | 3.5 ... 5.5 | 20.00 |
| SPD 01N60C3   | SP000012114 | PG-TO252-3-1  | 600 | 6.00 | 2.1 ... 3.9 | 0.80  |
| SPD 02N60C3   | SP000013693 | P-TO252-3-1   | 600 | 1.40 | 2.1 ... 3.9 | 3.20  |
| ▼ SPD 02N60C3 | SP000077611 | PG-TO252-3-1  | 600 | 1.40 | 2.1 ... 3.9 | 3.20  |
| SPD 02N60S5   | SP000012389 | P-TO252-3-1   | 600 | 3.00 | 3.5 ... 5.5 | 2.00  |
| ▼ SPD 02N60S5 | SP000083074 | PG-TO252-3-1  | 600 | 3.00 | 3.5 ... 5.5 | 2.00  |
| SPD 03N60C3   | SP000013694 | P-TO252-3-1   | 600 | 0.95 | 2.1 ... 3.9 | 4.50  |
| ▼ SPD 03N60C3 | SP000081145 | PG-TO252-3-1  | 600 | 0.95 | 2.1 ... 3.9 | 4.50  |
| ▼ SPD 03N60S5 | SP000083076 | PG-TO252-3-1  | 600 | 1.40 | 3.5 ... 5.5 | 3.00  |
| SPD 04N60C3   | SP000013656 | P-TO252-3-1   | 600 | 0.95 | 2.1 ... 3.9 | 4.50  |
| ▼ SPD 04N60C3 | SP000077604 | PG-TO252-3-1  | 600 | 0.95 | 2.1 ... 3.9 | 4.50  |
| SPD 04N60S5   | SP000012374 | P-TO252-3-1   | 600 | 0.95 | 3.5 ... 5.5 | 4.00  |
| ▼ SPD 04N60S5 | SP000077613 | PG-TO252-3-1  | 600 | 0.95 | 3.5 ... 5.5 | 4.00  |
| SPD 06N60C3   | SP000014696 | P-TO252-3-1   | 600 | 0.75 | 2.1 ... 3.9 | 6.20  |
| SPD 07N60C3   | SP000013730 | P-TO252-3-1   | 600 | 0.60 | 2.1 ... 3.9 | 7.30  |
| ▼ SPD 07N60C3 | SP000077605 | PG-TO252-3-1  | 600 | 0.60 | 2.1 ... 3.9 | 7.30  |
| SPD 07N60S5   | SP000012113 | P-TO252-3-1   | 600 | 0.60 | 3.5 ... 5.5 | 7.00  |
| ▼ SPD 07N60S5 | SP000077614 | P-TO252-3-1   | 600 | 0.60 | 3.5 ... 5.5 | 7.00  |

SMD = Surface Mounted Device

| Type | Ordering Code | Package | Data     |              |              |       |
|------|---------------|---------|----------|--------------|--------------|-------|
|      |               |         | $V_{DS}$ | $R_{DS(on)}$ | $V_{GS(th)}$ | $I_D$ |
|      |               |         | V        | $\Omega$     | V            | A     |

## Power Transistors

### N-Channel CoolMOS™ MOSFETs High Voltage 600 V (cont'd)

|                    |             |             |     |      |             |       |
|--------------------|-------------|-------------|-----|------|-------------|-------|
| SPI 07N60C3        | SP000013521 | P-TO262-3-1 | 600 | 0.60 | 2.1 ... 3.9 | 7.30  |
| SPI 07N60S5        | SP000013025 | P-TO262-3-1 | 600 | 0.60 | 3.5 ... 5.5 | 7.30  |
| SPI 11N60C3        | SP000013522 | P-TO262-3-1 | 600 | 0.38 | 2.1 ... 3.9 | 11.00 |
| SPI 11N60S5        | SP000013033 | P-TO262-3-1 | 600 | 0.38 | 3.5 ... 5.5 | 11.00 |
| SPI 15N60C3        | SP000014528 | P-TO262-3-1 | 600 | 0.28 | 2.1 ... 3.9 | 15.00 |
| SPI 20N60C3        | SP000014453 | P-TO262-3-1 | 600 | 0.19 | 2.1 ... 3.9 | 20.00 |
| SPN 01N60C3        | SP000012411 | SOT223      | 600 | 6.00 | 2.1 ... 3.9 | 0.30  |
| SPN 02N60C3        | SP000014454 | SOT223      | 600 | 3.00 | 2.1 ... 3.9 | 0.40  |
| ▼ SPN 02N60C3 G    | SP000101878 | SOT223      | 600 | 3.00 | 2.1 ... 3.9 | 0.40  |
| SPN 02N60C3 E-6433 | SP000101883 | SOT223      | 600 | 3.00 | 2.1 ... 3.9 | 0.40  |
| SPN 02N60S5        | SP000012412 | SOT223      | 600 | 3.00 | 3.5 ... 5.5 | 0.40  |
| SPN 03N60C3        | SP000014455 | SOT223      | 600 | 1.40 | 2.1 ... 3.9 | 0.70  |
| SPN 03N60S5        | SP000012413 | SOT223      | 600 | 1.40 | 3.5 ... 5.5 | 0.70  |
| SPN 04N60S5        | SP000012414 | SOT223      | 600 | 0.95 | 3.5 ... 5.5 | 0.80  |
| SPP 02N60C3        | SP000013523 | P-TO220-3-1 | 600 | 3.00 | 2.1 ... 3.9 | 1.80  |
| SPP 02N60S5        | SP000012390 | P-TO220-3-1 | 600 | 3.00 | 3.5 ... 5.5 | 2.00  |
| SPP 03N60C3        | SP000013524 | P-TO220-3-1 | 600 | 1.40 | 2.1 ... 3.9 | 3.20  |
| SPP 03N60S5        | SP000012340 | P-TO220-3-1 | 600 | 1.40 | 3.5 ... 5.5 | 3.00  |
| SPP 04N60C3        | SP000013534 | P-TO220-3-1 | 600 | 0.95 | 2.1 ... 3.9 | 4.50  |
| SPP 04N60S5        | SP000012363 | P-TO220-3-1 | 600 | 0.95 | 3.5 ... 5.5 | 4.00  |
| SPP 06N60C3        | SP000014697 | P-TO220-3-1 | 600 | 0.75 | 2.1 ... 3.9 | 6.20  |
| SPP 07N60C3        | SP000013525 | P-TO220-3-1 | 600 | 0.60 | 2.1 ... 3.9 | 7.30  |
| SPP 07N60S5        | SP000012115 | P-TO220-3-1 | 600 | 0.60 | 3.5 ... 5.5 | 7.00  |
| SPP 11N60C3        | SP000013526 | P-TO220-3-1 | 600 | 0.38 | 2.1 ... 3.9 | 11.00 |
| SPP 11N60S5        | SP000012375 | P-TO220-3-1 | 600 | 0.38 | 3.5 ... 5.5 | 11.00 |
| SPP 15N60C3        | SP000014527 | P-TO220-3-1 | 600 | 0.28 | 2.1 ... 3.9 | 15.00 |
| SPP 20N60C3        | SP000013527 | P-TO220-3-1 | 600 | 0.19 | 2.1 ... 3.9 | 20.00 |
| SPP 20N60S5        | SP000012116 | P-TO220-3-1 | 600 | 0.19 | 3.5 ... 5.5 | 20.00 |
| SPP 24N60C3        | SP000014690 | P-TO220-3-1 | 600 | 0.16 | 2.1 ... 3.9 | 24.00 |
| SPU 01N60C3        | SP000012110 | P-TO251-3-1 | 600 | 6.00 | 2.1 ... 3.9 | 0.80  |
| SPU 02N60C3        | SP000015064 | P-TO251-3-1 | 600 | 3.00 | 2.1 ... 3.9 | 1.80  |
| SPU 02N60S5        | SP000012422 | P-TO251-3-1 | 600 | 3.00 | 3.5 ... 5.5 | 1.80  |
| SPU 03N60S5        | SP000012423 | P-TO251-3-1 | 600 | 1.40 | 3.5 ... 5.5 | 3.20  |
| ▼ SPU 04N60C3      | SP000095850 | P-TO251-3-1 | 600 | 0.95 | 2.1 ... 3.9 | 4.50  |
| SPU 04N60S5        | SP000012424 | P-TO251-3-1 | 600 | 0.95 | 3.5 ... 5.5 | 4.50  |
| ▼ SPU 07N60C3      | SP000101635 | P-TO251-3-1 | 600 | 0.60 | 2.1 ... 3.9 | 7.30  |
| SPU 07N60S5        | SP000012109 | P-TO251-3-1 | 600 | 0.60 | 3.5 ... 5.5 | 7.30  |
| SPW 11N60C3        | SP000013728 | P-TO247-3-1 | 600 | 0.38 | 2.1 ... 3.9 | 11.00 |
| SPW 11N60S5        | SP000012462 | P-TO247-3-1 | 600 | 0.38 | 3.5 ... 5.5 | 11.00 |
| SPW 15N60C3        | SP000014530 | P-TO247-3-1 | 600 | 0.28 | 2.1 ... 3.9 | 15.00 |
| SPW 20N60C3        | SP000013729 | P-TO247-3-1 | 600 | 0.19 | 2.1 ... 3.9 | 20.00 |
| SPW 20N60S5        | SP000012463 | P-TO247-3-1 | 600 | 0.19 | 3.5 ... 5.5 | 20.00 |
| SPW 24N60C3        | SP000014695 | P-TO247-3-1 | 600 | 0.16 | 2.1 ... 3.9 | 24.00 |
| SPW 35N60C3        | SP000014970 | P-TO247-3-1 | 600 | 0.10 | 2.1 ... 3.9 | 34.60 |
| SPW 47N60C3        | SP000013953 | P-TO247-3-1 | 600 | 0.07 | 2.1 ... 3.9 | 47.00 |

SMD = Surface Mounted Device

# Power Semiconductors

| Type | Ordering Code | Package | Data     |              |              |       |
|------|---------------|---------|----------|--------------|--------------|-------|
|      |               |         | $V_{DS}$ | $R_{DS(on)}$ | $V_{GS(th)}$ | $I_D$ |
|      |               |         | V        | $\Omega$     | V            | A     |

## Power Transistors

### CoolMOS™ CP Power MOSFETs High Voltage 600 V

|                |             |               |     |       |             |       |
|----------------|-------------|---------------|-----|-------|-------------|-------|
| ▼ IPA 60R125CP | SP000095275 | PG-TO220-3-31 | 600 | 0.125 | 2.5 ... 3.5 | 25.00 |
| ▼ IPA 60R165CP | SP000096437 | PG-TO220-3-31 | 600 | 0.165 | 2.5 ... 3.5 | 21.00 |
| ▼ IPA 60R199CP | SP000094146 | PG-TO220-3-31 | 600 | 0.199 | 2.5 ... 3.5 | 16.00 |
| ▼ IPA 60R299CP | SP000096438 | PG-TO220-3-31 | 600 | 0.299 | 2.5 ... 3.5 | 11.00 |
| ▼ IPA 60R385CP | SP000089316 | PG-TO220-3-31 | 600 | 0.385 | 2.5 ... 3.5 | 9.00  |
| ▼ IPB 60R099CP | SP000088490 | PG-TO263-3-2  | 600 | 0.099 | 2.5 ... 3.5 | 31.00 |
| ▼ IPB 60R165CP | SP000096439 | PG-TO263-3-2  | 600 | 0.165 | 2.5 ... 3.5 | 21.00 |
| ▼ IPB 60R199CP | SP000223256 | PG-TO263-3-2  | 600 | 0.199 | 2.5 ... 3.5 | 16.00 |
| ▼ IPB 60R385CP | SP000228365 | PG-TO263-3-2  | 600 | 0.385 | 2.5 ... 3.5 | 9.00  |
| ▼ IPD 60R385CP | SP000062533 | PG-TO252-3-1  | 600 | 0.385 | 2.5 ... 3.5 | 9.00  |
| ▼ IPI 60R199CP | SP000103248 | PG-TO262-3-1  | 600 | 0.199 | 2.5 ... 3.5 | 16.00 |
| ▼ IPI 60R299CP | SP000103249 | PG-TO262-3-1  | 600 | 0.299 | 2.5 ... 3.5 | 11.00 |
| ▼ IPI 60R385CP | SP000103250 | PG-TO252-3-1  | 600 | 0.385 | 2.5 ... 3.5 | 9.00  |
| ▼ IPP 60R099CP | SP000057021 | PG-TO220-3-1  | 600 | 0.099 | 2.5 ... 3.5 | 31.00 |
| ▼ IPP 60R125CP | SP000088488 | PG-TO220-3-1  | 600 | 0.125 | 2.5 ... 3.5 | 21.00 |
| ▼ IPP 60R165CP | SP000084279 | PG-TO220-3-1  | 600 | 0.165 | 2.5 ... 3.5 | 25.00 |
| ▼ IPP 60R199CP | SP000084278 | PG-TO220-3-1  | 600 | 0.199 | 2.5 ... 3.5 | 16.00 |
| ▼ IPP 60R299CP | SP000084280 | PG-TO220-3-1  | 600 | 0.299 | 2.5 ... 3.5 | 11.00 |
| ▼ IPP 60R385CP | SP000082281 | PG-TO220-3-1  | 600 | 0.385 | 2.5 ... 3.5 | 9.00  |
| ▼ IPW 60R045CP | SP000067149 | PG-TO247-3-1  | 600 | 0.045 | 2.5 ... 3.5 | 60.00 |
| ▼ IPW 60R099CP | SP000067147 | PG-TO247-3-1  | 600 | 0.099 | 2.5 ... 3.5 | 31.00 |
| ▼ IPW 60R125CP | SP000088489 | PG-TO247-3-1  | 600 | 0.125 | 2.5 ... 3.5 | 25.00 |
| ▼ IPW 60R165CP | SP000095483 | PG-TO247-3-1  | 600 | 0.165 | 2.5 ... 3.5 | 21.00 |
| ▼ IPW 60R199CP | SP000089802 | PG-TO247-3-1  | 600 | 0.199 | 2.5 ... 3.5 | 16.00 |
| ▼ IPW 60R299CP | SP000103251 | PG-TO247-3-1  | 600 | 0.299 | 2.5 ... 3.5 | 11.00 |

### CoolMOS™ MOSFETs CFD for ZVS Applications (with fast body diode) High Voltage 600 V

|                |             |               |     |      |             |       |
|----------------|-------------|---------------|-----|------|-------------|-------|
| ▼ SPA 11N60CFD | SP000216317 | PG-TO220-3-31 | 600 | 0.22 | 3.0 ... 5.0 | 8.30  |
| ▼ SPA 20N60CFD | SP000216361 | PG-TO220-3-31 | 600 | 0.44 | 3.0 ... 5.0 | 11.00 |
| SPP 11N60CFD   | SP000014533 | PG-TO220-3-1  | 600 | 0.22 | 3.0 ... 5.0 | 8.30  |
| SPP 20N60CFD   | SP000014475 | PG-TO220-3-1  | 600 | 0.22 | 3.0 ... 5.0 | 20.70 |
| SPW 11N60CFD   | SP000014534 | PG-TO247-3-1  | 600 | 0.44 | 3.0 ... 5.0 | 11.00 |
| SPW 20N60CFD   | SP000014535 | PG-TO247-3-1  | 600 | 0.22 | 3.0 ... 5.0 | 20.00 |
| ▼ SPW 35N60CFD | SP000065487 | PG-TO247-3-1  | 600 | 0.12 | 3.0 ... 5.0 | 34.10 |
| ▼ SPW 47N60CFD | SP000065376 | PG-TO247-3-1  | 600 | 0.08 | 3.0 ... 5.0 | 46.00 |

SMD = Surface Mounted Device

| Type | Ordering Code | Package | Data     |              |              |       |
|------|---------------|---------|----------|--------------|--------------|-------|
|      |               |         | $V_{DS}$ | $R_{DS(on)}$ | $V_{GS(th)}$ | $I_D$ |
|      |               |         | V        | $\Omega$     | V            | A     |

## Power Transistors

### N-Channel CoolMOS™ MOSFETs High Voltage 650 V

|             |             |               |     |      |             |       |
|-------------|-------------|---------------|-----|------|-------------|-------|
| SPA 07N65C3 | SP000216305 | PG-TO220-3-31 | 650 | 0.60 | 2.1 ... 3.9 | 7.30  |
| SPA 11N65C3 | SP000216318 | PG-TO220-3-31 | 650 | 0.38 | 2.1 ... 3.9 | 11.00 |
| SPA 20N65C3 | SP000216362 | PG-TO220-3-31 | 650 | 0.19 | 2.1 ... 3.9 | 20.70 |
| SPI 07N65C3 | SP000014632 | P-TO220-3-31  | 650 | 0.60 | 2.1 ... 3.9 | 7.30  |
| SPI 11N65C3 | SP000014526 | P-TO262-3-1   | 650 | 0.38 | 2.1 ... 3.9 | 11.00 |
| SPI 20N65C3 | SP000014525 | P-TO262-3-1   | 650 | 0.19 | 2.1 ... 3.9 | 20.70 |
| SPP 07N65C3 | SP000014631 | P-TO220-3-31  | 650 | 0.60 | 2.1 ... 3.9 | 7.30  |
| SPP 11N65C3 | SP000014371 | P-TO220-3-31  | 650 | 0.38 | 2.1 ... 3.9 | 11.00 |
| SPP 20N65C3 | SP000014369 | P-TO220-3-31  | 650 | 0.10 | 2.1 ... 3.9 | 20.70 |

### N-Channel CoolMOS™ MOSFETs High Voltage 800 V

|               |             |               |     |      |             |       |
|---------------|-------------|---------------|-----|------|-------------|-------|
| SPA 02N80C3   | SP000216295 | PG-TO220-3-31 | 800 | 2.70 | 2.1 ... 3.9 | 2.00  |
| SPA 04N80C3   | SP000216300 | PG-TO220-3-31 | 800 | 2.70 | 2.1 ... 3.9 | 2.00  |
| SPA 06N80C3   | SP000216302 | PG-TO220-3-31 | 800 | 0.90 | 2.1 ... 3.9 | 6.00  |
| SPA 08N80C3   | SP000216310 | PG-TO220-3-31 | 800 | 0.65 | 2.1 ... 3.9 | 8.00  |
| SPA 11N80C3   | SP000216320 | PG-TO220-3-31 | 800 | 0.45 | 2.1 ... 3.9 | 11.00 |
| SPA 17N80C3   | SP000216353 | PG-TO220-3-31 | 800 | 0.29 | 2.1 ... 3.9 | 17.00 |
| SPB 17N80C3   | SP000013370 | P-TO263-3-2   | 800 | 0.29 | 2.0 ... 4.0 | 17.00 |
| SPD 02N80C3   | SP000014822 | P-TO252-3-1   | 800 | 2.70 | 2.1 ... 3.9 | 2.00  |
| SPD 04N80C3   | SP000014524 | P-TO252-3-1   | 800 | 1.30 | 2.1 ... 3.9 | 4.00  |
| ▼ SPD 04N80C3 | SP000077607 | PG-TO252-3-1  | 800 | 1.30 | 2.1 ... 3.9 | 4.00  |
| SPD 06N80C3   | SP000013364 | P-TO252-3-1   | 800 | 0.90 | 2.0 ... 4.0 | 6.00  |
| ▼ SPD 06N80C3 | SP000077606 | PG-TO252-3-1  | 800 | 0.90 | 2.0 ... 4.0 | 6.00  |
| SPI 08N80C3   | SP000014819 | P-TO262-3-1   | 800 | 0.65 | 2.1 ... 3.9 | 8.00  |
| SPP 02N80C3   | SP000013732 | P-TO220-3-1   | 800 | 2.70 | 2.1 ... 3.9 | 2.00  |
| SPP 04N80C3   | SP000013706 | P-TO220-3-1   | 800 | 1.30 | 2.1 ... 3.9 | 4.00  |
| SPP 06N80C3   | SP000013366 | P-TO220-3-1   | 800 | 0.90 | 2.0 ... 4.0 | 6.00  |
| SPP 08N80C3   | SP000013704 | P-TO220-3-1   | 800 | 0.90 | 2.1 ... 3.9 | 8.00  |
| SPP 11N80C3   | SP000013701 | P-TO220-3-1   | 800 | 0.45 | 2.1 ... 3.9 | 11.00 |
| SPP 17N80C3   | SP000013354 | P-TO220-3-1   | 800 | 0.29 | 2.1 ... 3.9 | 17.00 |
| SPW 11N80C3   | SP000013703 | P-TO247-3-1   | 800 | 0.45 | 2.1 ... 3.9 | 11.00 |
| SPW 17N80C3   | SP000013369 | P-TO247-3-1   | 800 | 0.29 | 2.0 ... 4.0 | 17.00 |
| ▼ SPW 17N80C3 | SP000101842 | PG-TO247-3-1  | 800 | 0.29 | 2.0 ... 4.0 | 17.00 |

SMD = Surface Mounted Device

# Power Semiconductors

| Type | Ordering Code | Package | Data     |       |           |            |
|------|---------------|---------|----------|-------|-----------|------------|
|      |               |         | $V_{CE}$ | $I_C$ | $P_{tot}$ | $R_{thJC}$ |
|      |               |         | V        | A     | W         | K/W        |

## Power Transistors

### IGBT Power Transistors

#### 600 V

|                    |             |             |     |    |     |        |
|--------------------|-------------|-------------|-----|----|-----|--------|
| SGB 02N60          | SP000011978 | P-TO263-3-2 | 600 | 2  | 50  | ≤ 4.2  |
| SGB 04N60          | SP000011979 | P-TO263-3-2 | 600 | 4  | 50  | ≤ 2.5  |
| SGB 06N60          | SP000011980 | P-TO263-3-2 | 600 | 6  | 70  | ≤ 1.85 |
| SGB 10N60          | SP000011981 | P-TO263-3-2 | 600 | 10 | 125 | ≤ 1.0  |
| SGB 10N60A         | SP000013790 | P-TO263-3-2 | 600 | 10 | 92  | 1.35   |
| SGB 15N60          | SP000011983 | P-TO263-3-2 | 600 | 15 | 135 | ≤ 0.9  |
| ▼ SGB 15N60 E-3261 | SP000011982 | P-TO263-3-2 | 600 | 15 | 135 | ≤ 0.9  |
| SGB 20N60          | SP000011984 | P-TO263-3-2 | 600 | 20 | 175 | ≤ 0.7  |
| SGB 30N60          | SP000011985 | P-TO263-3-2 | 600 | 30 | 250 | ≤ 0.5  |
| SGD 02N60          | SP000011993 | P-TO252-3-1 | 600 | 2  | 30  | ≤ 4.2  |
| SGD 04N60          | SP000011994 | P-TO252-3-1 | 600 | 4  | 50  | ≤ 2.5  |
| SGD 06N60          | SP000011995 | P-TO252-3-1 | 600 | 6  | 70  | ≤ 1.85 |
| SGP 02N60          | SP000011986 | P-TO220-3-1 | 600 | 2  | 50  | ≤ 4.2  |
| SGP 04N60          | SP000011987 | P-TO220-3-1 | 600 | 4  | 50  | ≤ 2.5  |
| SGP 06N60          | SP000011988 | P-TO220-3-1 | 600 | 6  | 70  | ≤ 1.85 |
| SGP 10N60          | SP000011989 | P-TO220-3-1 | 600 | 10 | 125 | ≤ 1.0  |
| SGP 10N60A         | SP000013743 | P-TO220-3-1 | 600 | 10 | 92  | 1.35   |
| SGP 15N60          | SP000011990 | P-TO220-3-1 | 600 | 15 | 135 | ≤ 0.9  |
| SGP 20N60          | SP000011991 | P-TO220-3-1 | 600 | 20 | 175 | ≤ 0.7  |
| SGP 30N60          | SP000011992 | P-TO220-3-1 | 600 | 30 | 250 | ≤ 0.5  |
| SGW 10N60          | SP000012464 | P-TO247-3-1 | 600 | 10 | 104 | ≤ 1.2  |
| SGW 10N60A         | SP000013742 | P-TO247-3-1 | 600 | 10 | 92  | 1.35   |
| SGW 15N60          | SP000012465 | P-TO247-3-1 | 600 | 15 | 138 | ≤ 0.9  |
| SGW 20N60          | SP000012466 | P-TO247-3-1 | 600 | 20 | 178 | ≤ 0.7  |
| SGW 30N60          | SP000012467 | P-TO247-3-1 | 600 | 30 | 250 | ≤ 0.5  |
| ▼ SKD 04N60 LV     | SP000014295 | P-TO252-3-1 | 600 | 5  | 50  | ≤ 2.5  |

### IGBT Power Transistors

#### 1200 V

|                    |             |             |      |    |     |        |
|--------------------|-------------|-------------|------|----|-----|--------|
| ▼ BUP 212          | SP000011971 | P-TO220-3-1 | 1200 | 22 | 125 | ≤ 1.0  |
| ▼ BUP 212 E-3045 A | SP000013752 | P-TO263-3-2 | 1200 | 22 | 125 | ≤ 1.0  |
| ▼ BUP 213          | SP000011326 | P-TO220-3-1 | 1200 | 30 | 200 | ≤ 0.63 |
| ▼ BUP 213 E-3045 A | SP000012387 | P-TO263-3-2 | 1200 | 30 | 200 | ≤ 0.63 |
| ▼ BUP 311 D        | SP000011954 | P-TO218-3-1 | 1200 | 12 | 125 | ≤ 1.0  |
| ▼ BUP 313          | SP000011327 | P-TO218-3-1 | 1200 | 30 | 200 | ≤ 0.63 |
| ▼ BUP 313 D        | SP000011328 | P-TO218-3-1 | 1200 | 32 | 200 | ≤ 0.63 |
| ▼ BUP 314          | SP000011329 | P-TO218-3-1 | 1200 | 52 | 300 | ≤ 0.42 |
| ▼ BUP 314 D        | SP000011330 | P-TO218-3-1 | 1200 | 42 | 300 | ≤ 0.42 |
| SGB 02N120         | SP000012558 | P-TO263-3-2 | 1200 | 12 | 125 | ≤ 1.0  |
| SGB 07N120         | SP000012559 | P-TO263-3-2 | 1200 | 7  | 125 | ≤ 1.0  |
| SGB 15N120         | SP000012560 | P-TO263-3-2 | 1200 | 15 | 198 | ≤ 0.63 |
| SGD 02N120         | SP000012566 | P-TO252-3-1 | 1200 | 2  | 62  | ≤ 2.0  |
| ▼ SGI 02N120       | SP000012885 | P-TO262-3-1 | 1200 | 2  | 62  | ≤ 2.0  |
| SGP 02N120         | SP000012561 | P-TO220-3-1 | 1200 | 2  | 62  | ≤ 2.0  |
| SGP 07N120         | SP000012562 | P-TO220-3-1 | 1200 | 7  | 125 | ≤ 1.0  |
| SGP 15N120         | SP000012563 | P-TO220-3-1 | 1200 | 15 | 198 | ≤ 0.63 |
| SGW 15N120         | SP000012564 | P-TO247-3-1 | 1200 | 15 | 198 | ≤ 0.63 |
| SGW 25N120         | SP000012565 | P-TO247-3-1 | 1200 | 25 | 313 | ≤ 0.4  |

SMD = Surface Mounted Device

# Power Semiconductors

| Type | Ordering Code | Package | Data     |       |           |            |
|------|---------------|---------|----------|-------|-----------|------------|
|      |               |         | $V_{CE}$ | $I_C$ | $P_{tot}$ | $R_{thJC}$ |
|      |               |         | V        | A     | W         | K/W        |

## Power Transistors

### IGBT Power Transistors

#### Fast DuoPack™ (IGBT + EmCon™ Diode)

600 V

|                    |             |              |     |    |     |        |
|--------------------|-------------|--------------|-----|----|-----|--------|
| ▼ SKA 06N60        | SP000215379 | PG-TO220-3-1 | 600 | 6  | 32  | ≤ 3.9  |
| SKB 02N60          | SP000012416 | P-TO263-3-2  | 600 | 2  | 30  | ≤ 4.2  |
| ▼ SKB 02N60 E-3266 | SP000012417 | P-TO263-3-2  | 600 | 2  | 30  | ≤ 4.2  |
| SKB 04N60          | SP000012425 | P-TO263-3-2  | 600 | 4  | 50  | ≤ 2.5  |
| SKB 06N60          | SP000012427 | P-TO263-3-2  | 600 | 6  | 68  | ≤ 1.85 |
| SKB 10N60          | SP000012420 | P-TO263-3-2  | 600 | 10 | 92  | ≤ 1.35 |
| SKB 10N60A         | SP000013740 | P-TO263-3-2  | 600 | 10 | 92  | ≤ 1.35 |
| SKB 15N60          | SP000012429 | P-TO263-3-2  | 600 | 15 | 139 | ≤ 0.9  |
| ▼ SKB 15N60 E-8151 | SP000012430 | P-TO263-3-2  | 600 | 15 | 139 | ≤ 0.9  |
| SKP 02N60          | SP000012421 | P-TO220-3-1  | 600 | 2  | 30  | ≤ 4.2  |
| SKP 04N60          | SP000012418 | P-TO220-3-1  | 600 | 4  | 50  | ≤ 2.5  |
| SKP 06N60          | SP000012426 | P-TO220-3-1  | 600 | 6  | 68  | ≤ 1.85 |
| SKP 10N60          | SP000012419 | P-TO220-3-1  | 600 | 10 | 92  | ≤ 1.35 |
| SKP 10N60A         | SP000013739 | P-TO220-3-1  | 600 | 10 | 92  | ≤ 1.35 |
| SKP 15N60          | SP000012428 | P-TO220-3-1  | 600 | 15 | 139 | ≤ 0.9  |
| SKW 10N60          | SP000012481 | P-TO247-3-1  | 600 | 10 | 92  | ≤ 1.35 |
| SKW 10N60A         | SP000013741 | P-TO247-3-1  | 600 | 10 | 92  | ≤ 1.35 |
| SKW 15N60          | SP000012482 | P-TO247-3-1  | 600 | 15 | 139 | ≤ 0.9  |
| SKW 20N60          | SP000012483 | P-TO247-3-1  | 600 | 20 | 179 | ≤ 0.7  |
| SKW 30N60          | SP000012484 | P-TO247-3-1  | 600 | 30 | 250 | ≤ 0.5  |

### IGBT Power Transistors

#### Fast DuoPack™ (IGBT + EmCon™ Diode)

1200 V

|            |             |             |      |    |     |        |
|------------|-------------|-------------|------|----|-----|--------|
| SKB 02N120 | SP000012567 | P-TO263-3-2 | 1200 | 2  | 62  | ≤ 2.0  |
| SKP 02N120 | SP000012568 | P-TO220-3-1 | 1200 | 2  | 62  | ≤ 2.0  |
| SKW 07N120 | SP000012569 | P-TO247-3-1 | 1200 | 8  | 125 | ≤ 1.0  |
| SKW 15N120 | SP000012570 | P-TO247-3-1 | 1200 | 15 | 198 | ≤ 0.63 |
| SKW 25N120 | SP000012571 | P-TO247-3-1 | 1200 | 25 | 313 | ≤ 0.4  |

### IGBT Power Transistors (High Speed)

|               |             |              |     |    |     |       |
|---------------|-------------|--------------|-----|----|-----|-------|
| SGB 15N60HS   | SP000014134 | P-TO263-3-2  | 600 | 15 | 138 | ≤ 0.9 |
| ▼ SGB 15N60HS | SP000056421 | PG-TO263-3-2 | 600 | 15 | 138 | ≤ 0.9 |
| SGP 20N60HS   | SP000013838 | P-TO220-3-1  | 600 | 20 | 178 | ≤ 0.7 |
| SGP 30N60HS   | SP000013839 | P-TO220-3-1  | 600 | 30 | 250 | ≤ 0.5 |
| SGW 20N60HS   | SP000013771 | P-TO247-3-1  | 600 | 20 | 178 | ≤ 0.7 |
| SGW 30N60HS   | SP000013770 | P-TO247-3-1  | 600 | 30 | 250 | ≤ 0.5 |
| ▼ SGW 50N60HS | SP000089248 | P-TO247-3-1  | 600 | 50 | 416 | ≤ 0.3 |

SMD = Surface Mounted Device

# Power Semiconductors

| Type | Ordering Code | Package | Data     |       |           |            |
|------|---------------|---------|----------|-------|-----------|------------|
|      |               |         | $V_{CE}$ | $I_C$ | $P_{tot}$ | $R_{thJC}$ |
|      |               |         | V        | A     | W         | K/W        |

## Power Transistors

### IGBT Power Transistors (High Speed-2)

|                       |             |               |      |   |      |       |
|-----------------------|-------------|---------------|------|---|------|-------|
| ▼ IGA 03N120H2        | SP000215371 | PG-TO220-3-31 | 1200 | 3 | 29   | ≤ 4.3 |
| ▼ IGA 03N120H2 E-8153 | SP000015372 | PG-TO220-3-34 | 1200 | 3 | 29   | ≤ 4.3 |
| IGB 01N120H2          | SP000014614 | P-TO263-3-2   | 1200 | 1 | 28   | ≤ 4.5 |
| IGB 03N120H2          | SP000014616 | P-TO263-3-2   | 1200 | 3 | 62.5 | ≤ 2.0 |
| IGD 01N120H2          | SP000014523 | P-TO252-3-1   | 1200 | 1 | 28   | ≤ 4.5 |
| IGP 01N120H2          | SP000014615 | P-TO220-3-1   | 1200 | 1 | 28   | ≤ 4.5 |
| IGP 03N120H2          | SP000014617 | P-TO220-3-1   | 1200 | 3 | 62.5 | ≤ 2.0 |
| IGW 03N120H2          | SP000014182 | P-TO247-3-1   | 1200 | 3 | 62.5 | ≤ 2.0 |

### IGBT Power Transistors

#### High Speed DuoPack™ (IGBT + EmCon™ Diode)

|               |             |             |     |    |     |        |
|---------------|-------------|-------------|-----|----|-----|--------|
| ▼ SKB 06N60HS | SP000014222 | P-TO263-3-2 | 600 | 6  | 68  | ≤ 1.85 |
| SKB 15N60HS   | SP000014221 | P-TO263-3-2 | 600 | 15 | 138 | ≤ 0.90 |
| SKW 20N60HS   | SP000013772 | P-TO247-3-1 | 600 | 20 | 178 | ≤ 0.70 |
| SKW 30N60HS   | SP000013744 | P-TO247-3-1 | 600 | 30 | 250 | ≤ 0.50 |

#### High Speed-2 DuoPack™ (IGBT + EmCon™ Diode)

|                       |             |               |      |   |      |        |
|-----------------------|-------------|---------------|------|---|------|--------|
| ▼ IKA 03N120H2        | SP000215373 | PG-TO220-3-31 | 1200 | 3 | 29   | ≤ 4.30 |
| ▼ IKA 03N120H2 E-8153 | SP000215374 | PG-TO220-3-34 | 1200 | 3 | 29   | ≤ 4.30 |
| IKB 01N120H2          | SP000014271 | P-TO263-3-2   | 1200 | 1 | 28   | ≤ 4.50 |
| IKB 03N120H2          | SP000014272 | P-TO263-3-2   | 1200 | 3 | 62.5 | ≤ 2.00 |
| IKP 01N120H2          | SP000014179 | P-TO220-3-1   | 1200 | 1 | 28   | ≤ 4.50 |
| IKP 03N120H2          | SP000014180 | P-TO220-3-1   | 1200 | 3 | 62.5 | ≤ 2.00 |
| IKW 03N120H2          | SP000014181 | P-TO247-3-1   | 1200 | 3 | 62.5 | ≤ 2.00 |

### LightMOS Lighting IGBT

#### 600 V

|             |             |               |     |   |    |        |
|-------------|-------------|---------------|-----|---|----|--------|
| ▼ ILD 03N60 | SP000014338 | P-TO252-3-21  | 600 | 3 | 27 | ≤ 4.70 |
| ▼ ILD 03N60 | SP000077615 | PG-TO252-3-21 | 600 | 3 | 27 | ≤ 4.70 |

SMD = Surface Mounted Device

| Type | Ordering Code | Package | Data     |       |           |            |
|------|---------------|---------|----------|-------|-----------|------------|
|      |               |         | $V_{CE}$ | $I_C$ | $P_{tot}$ | $R_{thJC}$ |
|      |               |         | V        | A     | W         | K/W        |

## Power Transistors

### IGBT Power Transistors TrenchStop 600 V

|              |             |             |     |    |     |        |
|--------------|-------------|-------------|-----|----|-----|--------|
| IGB 15N60T   | SP000054921 | P-TO263-3-2 | 600 | 15 | 130 | ≤ 1.15 |
| ▼ IGB 30N60T | SP000095765 | P-TO263-3-2 | 600 | 30 | 187 | ≤ 0.80 |
| IGB 50N60T   | SP000054922 | P-TO263-3-2 | 600 | 50 | 333 | ≤ 0.45 |
| ▼ IGP 06N60T | SP000095766 | P-TO220-3-1 | 600 | 6  | 88  | ≤ 1.70 |
| IGP 10N60T   | SP000016446 | P-TO220-3-1 | 600 | 10 | 187 | ≤ 0.80 |
| ▼ IGP 15N60T | SP000095767 | P-TO220-3-1 | 600 | 15 | 130 | ≤ 1.15 |
| IGP 30N60T   | SP000054923 | P-TO220-3-1 | 600 | 30 | 333 | ≤ 0.45 |
| IGP 50N60T   | SP000054924 | P-TO220-3-1 | 600 | 50 | 333 | ≤ 0.45 |
| IGW 30N60T   | SP000054925 | P-TO247-3-1 | 600 | 30 | 333 | ≤ 0.45 |
| IGW 50N60T   | SP000054926 | P-TO247-3-1 | 600 | 50 | 333 | ≤ 0.45 |
| IGW 75N60T   | SP000054927 | P-TO247-3-1 | 600 | 75 | 428 | ≤ 0.35 |

### IGBT Power Transistors TrenchStop 1200 V

|            |             |             |      |    |     |        |
|------------|-------------|-------------|------|----|-----|--------|
| IGW 08T120 | SP000013937 | P-TO247-3-1 | 1200 | 8  | 70  | ≤ 1.70 |
| IGW 15T120 | SP000013888 | P-TO247-3-1 | 1200 | 15 | 110 | ≤ 1.10 |
| IGW 25T120 | SP000013887 | P-TO247-3-1 | 1200 | 25 | 190 | ≤ 0.65 |
| IGW 40T120 | SP000013886 | P-TO247-3-1 | 1200 | 40 | 270 | ≤ 0.45 |
| IGW 60T120 | SP000013906 | P-TO247-3-1 | 1200 | 60 | 375 | ≤ 0.33 |

### IGBT Power Transistors TrenchStop DuoPack™ (IGBT + EmCon™ Diode) 600 V

|              |             |              |     |    |     |        |
|--------------|-------------|--------------|-----|----|-----|--------|
| ▼ IKA 06N60T | SP000215375 | PG-TO220-3-1 | 600 | 6  | 28  | ≤ 5.30 |
| ▼ IKA 10N60T | SP000215376 | PG-TO220-3-1 | 600 | 10 | 30  | ≤ 5.00 |
| ▼ IKA 15N60T | SP000215377 | PG-TO220-3-1 | 600 | 15 | 36  | ≤ 4.20 |
| IKB 06N60T   | SP000014954 | P-TO263-3-2  | 600 | 6  | 88  | ≤ 1.70 |
| IKB 10N60T   | SP000014833 | P-TO263-3-2  | 600 | 10 | 110 | ≤ 1.35 |
| IKB 15N60T   | SP000054882 | P-TO263-3-2  | 600 | 15 | 130 | ≤ 1.15 |
| IKB 20N60T   | SP000054883 | P-TO263-3-2  | 600 | 20 | 166 | ≤ 0.90 |
| IKP 04N60T   | SP000054884 | P-TO220-3-1  | 600 | 4  | 42  | ≤ 3.50 |
| IKP 06N60T   | SP000014953 | P-TO220-3-1  | 600 | 6  | 88  | ≤ 1.70 |
| IKP 10N60T   | SP000014753 | P-TO220-3-1  | 600 | 10 | 110 | ≤ 1.35 |
| ▼ IKP 15N60T | SP000095768 | P-TO220-3-1  | 600 | 15 | 130 | ≤ 1.15 |
| IKP 20N60T   | SP000054885 | P-TO220-3-1  | 600 | 20 | 166 | ≤ 0.90 |
| IKW 20N60T   | SP000054886 | P-TO247-3-1  | 600 | 20 | 166 | ≤ 0.90 |
| IKW 30N60T   | SP000054887 | P-TO247-3-1  | 600 | 30 | 187 | ≤ 0.80 |
| IKW 50N60T   | SP000054888 | P-TO247-3-1  | 600 | 50 | 333 | ≤ 0.45 |
| IKW 75N60T   | SP000054889 | P-TO247-3-1  | 600 | 75 | 428 | ≤ 0.35 |

SMD = Surface Mounted Device

| Type | Ordering Code | Package | Data     |       |           |            |
|------|---------------|---------|----------|-------|-----------|------------|
|      |               |         | $V_{CE}$ | $I_C$ | $P_{tot}$ | $R_{thJC}$ |
|      |               |         | V        | A     | W         | K/W        |

## Power Transistors

### IGBT Power Transistors

#### TrenchStop DuoPack™ (IGBT + EmCon™ Diode)

##### 1200 V

|            |             |             |      |    |     |        |
|------------|-------------|-------------|------|----|-----|--------|
| IHP 10T120 | SP000014951 | P-TO220-3-1 | 1200 | 10 | 138 | ≤ 0.90 |
| IHW 15T120 | SP000014892 | P-TO247-3-1 | 1200 | 15 | 113 | ≤ 1.10 |
| IHW 20T120 | SP000014881 | P-TO247-3-1 | 1200 | 20 | 178 | ≤ 0.70 |
| IHW 40T120 | SP000014893 | P-TO247-3-1 | 1200 | 40 | 270 | ≤ 0.45 |
| IKW 08T120 | SP000013885 | P-TO247-3-1 | 1200 | 8  | 70  | ≤ 1.70 |
| IKW 15T120 | SP000013938 | P-TO247-3-1 | 1200 | 15 | 110 | ≤ 1.10 |
| IKW 25T120 | SP000013939 | P-TO247-3-1 | 1200 | 25 | 190 | ≤ 0.65 |
| IKW 40T120 | SP000013940 | P-TO247-3-1 | 1200 | 40 | 270 | ≤ 0.45 |

#### TrenchStop DuoPack™ (IGBT + EmCon™ Diode)

##### for induction cooking

##### 600 V

|              |             |             |     |    |     |        |
|--------------|-------------|-------------|-----|----|-----|--------|
| ▼ IHW 30N60T | SP000076306 | P-TO247-3-1 | 600 | 30 | 187 | ≤ 0.80 |
| ▼ IHW 40N60T | SP000076321 | P-TO247-3-1 | 600 | 40 | 303 | ≤ 0.49 |

#### TrenchStop DuoPack™ (IGBT + EmCon™ Diode)

##### for induction cooking

##### 900 V

|              |             |             |     |    |     |        |
|--------------|-------------|-------------|-----|----|-----|--------|
| ▼ IHW 30N90R | SP000209140 | P-TO247-3-1 | 900 | 30 | 428 | ≤ 0.35 |
| ▼ IHW 30N90T | SP000076322 | P-TO247-3-1 | 900 | 30 | 428 | ≤ 0.35 |

#### TrenchStop DuoPack™ (IGBT + EmCon™ Diode)

##### for induction cooking

##### 1000 V

|               |             |               |      |    |     |        |
|---------------|-------------|---------------|------|----|-----|--------|
| ▼ IHW 30N100R | SP000212224 | PG-TO247-3-21 | 1000 | 30 | 412 | ≤ 0.36 |
| ▼ IHW 30N100T | SP000086713 | PG-TO247-3-21 | 1000 | 30 | 412 | ≤ 0.36 |

#### TrenchStop DuoPack™ (IGBT + EmCon™ Diode)

##### for induction cooking

##### 1200 V

|                |             |               |      |    |     |        |
|----------------|-------------|---------------|------|----|-----|--------|
| ▼ IHW 15N120R  | SP000080229 | PG-TO247-3-21 | 1200 | 15 | 357 | ≤ 0.52 |
| ▼ IHW 15N120R2 | SP000212014 | PG-TO247-3-21 | 1200 | 15 | 357 | ≤ 0.52 |
| ▼ IHW 20N120R  | SP000076323 | PG-TO247-3-21 | 1200 | 20 | 357 | ≤ 0.42 |
| ▼ IHW 20N120R2 | SP000212015 | PG-TO247-3-21 | 1200 | 20 | 330 | ≤ 0.45 |
| ▼ IHW 30N120R  | SP000076324 | PG-TO247-3-21 | 1200 | 30 | 395 | ≤ 0.38 |
| ▼ IHW 30N120R2 | SP000212017 | PG-TO247-3-21 | 1200 | 30 | 390 | ≤ 0.38 |

SMD = Surface Mounted Device

# Power Semiconductors

| Type | Ordering Code | Package | Data      |       |       |            |
|------|---------------|---------|-----------|-------|-------|------------|
|      |               |         | $V_{RRM}$ | $I_F$ | $V_F$ | $T_{jmax}$ |
|      |               |         | V         | A     | V     | °C         |

## Power Diodes

### EmCon™ Diodes 600 V

|              |             |              |     |     |      |     |
|--------------|-------------|--------------|-----|-----|------|-----|
| IDB 06E60    | SP000014039 | P-TO220-3-45 | 600 | 6   | 1.45 | 175 |
| IDB 09E60    | SP000013914 | P-TO220-3-45 | 600 | 9   | 1.45 | 175 |
| IDB 15E60    | SP000014044 | P-TO220-3-45 | 600 | 15  | 1.45 | 175 |
| IDB 23E60    | SP000014046 | P-TO220-3-45 | 600 | 23  | 1.45 | 175 |
| IDB 30E60    | SP000013917 | P-TO220-3-45 | 600 | 30  | 1.45 | 175 |
| IDB 45E60    | SP000013635 | P-TO220-3-45 | 600 | 45  | 1.45 | 175 |
| IDD 03E60    | SP000013632 | P-TO252-3-1  | 600 | 3   | 1.45 | 175 |
| IDD 06E60    | SP000013633 | P-TO252-3-1  | 600 | 6   | 1.45 | 175 |
| ▼ IDD 06E60  | SP000077586 | PG-TO252-3-1 | 600 | 6   | 1.45 | 175 |
| IDD 09E60    | SP000013634 | P-TO252-3-1  | 600 | 9   | 1.45 | 175 |
| IDD 15E60    | SP000013915 | P-TO252-3-1  | 600 | 15  | 1.45 | 175 |
| ▼ IDD 15E60  | SP000077587 | PG-TO252-3-1 | 600 | 15  | 1.45 | 175 |
| IDD 23E60    | SP000013916 | P-TO252-3-1  | 600 | 23  | 1.45 | 175 |
| ▼ IDD 23E60  | SP000077588 | P-TO252-3-1  | 600 | 23  | 1.45 | 175 |
| IDP 06E60    | SP000014040 | P-TO220-2-2  | 600 | 6   | 1.45 | 175 |
| IDP 09E60    | SP000014043 | P-TO220-2-2  | 600 | 9   | 1.45 | 175 |
| IDP 15E60    | SP000014045 | P-TO220-2-2  | 600 | 15  | 1.45 | 175 |
| IDP 23E60    | SP000014047 | P-TO220-2-2  | 600 | 23  | 1.45 | 175 |
| IDP 30E60    | SP000014048 | P-TO220-2-2  | 600 | 30  | 1.45 | 175 |
| IDP 45E60    | SP000013797 | P-TO220-2-2  | 600 | 45  | 1.45 | 175 |
| ▼ IDW 75E60  | SP000227824 | PG-TO247-3-1 | 600 | 75  | 1.45 | 175 |
| ▼ IDW 100E60 | SP000227825 | PG-TO247-3-1 | 600 | 100 | 1.45 | 175 |

### EmCon™ Diodes 1200 V

|            |             |              |      |    |      |     |
|------------|-------------|--------------|------|----|------|-----|
| IDB 04E120 | SP000013639 | P-TO220-3-45 | 1200 | 4  | 1.65 | 150 |
| IDB 09E120 | SP000013918 | P-TO220-3-45 | 1200 | 9  | 1.65 | 150 |
| IDB 12E120 | SP000013640 | P-TO220-3-45 | 1200 | 12 | 1.65 | 150 |
| IDB 18E120 | SP000013919 | P-TO220-3-45 | 1200 | 18 | 1.65 | 150 |
| IDB 30E120 | SP000013641 | P-TO220-3-45 | 1200 | 30 | 1.65 | 150 |
| IDP 04E120 | SP000013798 | P-TO220-2-2  | 1200 | 4  | 1.65 | 150 |
| IDP 09E120 | SP000014041 | P-TO220-2-2  | 1200 | 9  | 1.65 | 150 |
| IDP 12E120 | SP000013799 | P-TO220-2-2  | 1200 | 12 | 1.65 | 150 |
| IDP 18E120 | SP000014042 | P-TO220-2-2  | 1200 | 18 | 1.65 | 150 |
| IDP 30E120 | SP000013800 | P-TO220-2-2  | 1200 | 30 | 1.65 | 150 |

SMD = Surface Mounted Device

# Power Semiconductors

| Type | Ordering Code | Package | Data     |          |     |
|------|---------------|---------|----------|----------|-----|
|      |               |         | $V_{RR}$ | $I_{FR}$ | $t$ |
|      |               |         | V        | A        | ns  |

## Power Diodes

### Fast-Recovery Epitaxial Diodes (FRED)

|           |             |             |      |    |     |
|-----------|-------------|-------------|------|----|-----|
| ▼ BYP 303 | SP000011384 | P-TO218-2-1 | 1200 | 60 | 150 |
|-----------|-------------|-------------|------|----|-----|

| Type | Ordering Code | Package | Data      |       |       |
|------|---------------|---------|-----------|-------|-------|
|      |               |         | $V_{RRm}$ | $I_F$ | $Q_C$ |
|      |               |         | V         | A     | ns    |

### Silicon Carbide Ultrafast Schottky Diodes thinQ!<sup>TM</sup> 300 V

|           |             |              |     |        |    |
|-----------|-------------|--------------|-----|--------|----|
| SDB 20S30 | SP000013514 | P-TO220-3-45 | 300 | 2 x 10 | 23 |
| SDP 10S30 | SP000013359 | P-TO220-3-1  | 300 | 10     | 23 |
| SDP 20S30 | SP000013625 | P-TO220-3-1  | 300 | 2 x 10 | 23 |
| SDT 10S30 | SP000013824 | P-TO220-2-2  | 300 | 10     | 23 |

### Silicon Carbide Ultrafast Schottky Diodes thinQ!<sup>TM</sup> 600 V

|             |             |              |     |    |    |
|-------------|-------------|--------------|-----|----|----|
| SDB 06S60   | SP000013624 | P-TO220-3-45 | 600 | 6  | 21 |
| SDD 04S60   | SP000013515 | P-TO252-3-1  | 600 | 4  | 13 |
| ▼ SDD 04S60 | SP000077602 | PG-TO252-3-1 | 600 | 4  | 13 |
| SDP 04S60   | SP000013358 | P-TO220-3-1  | 600 | 4  | 13 |
| SDP 06S60   | SP000013357 | P-TO220-3-1  | 600 | 6  | 21 |
| SDT 04S60   | SP000013822 | P-TO220-2-2  | 600 | 4  | 13 |
| SDT 05S60   | SP000014671 | P-TO220-2-2  | 600 | 5  | 14 |
| SDT 06S60   | SP000013823 | P-TO220-2-2  | 600 | 6  | 21 |
| SDT 08S60   | SP000014897 | P-TO220-2-2  | 600 | 8  | 24 |
| SDT 10S60   | SP000014896 | P-TO220-2-2  | 600 | 10 | 29 |
| SDT 12S60   | SP000013825 | P-TO220-2-2  | 600 | 12 | 30 |

### Silicon Carbide Ultrafast Schottky Diodes thinQ!<sup>TM</sup> 2nd Generation 600 V

|              |             |              |     |       |    |
|--------------|-------------|--------------|-----|-------|----|
| ▼ IDD 04S60C | SP000080224 | PG-TO252-3-1 | 600 | 4     | 8  |
| ▼ IDT 04S60C | SP000080225 | P-TO220-3-1  | 600 | 4     | 8  |
| ▼ IDT 05S60C | SP000096441 | P-TO220-3-1  | 600 | 5     | 12 |
| ▼ IDT 06S60C | SP000096442 | P-TO220-3-1  | 600 | 6     | 15 |
| ▼ IDT 08S60C | SP000080226 | P-TO220-3-1  | 600 | 8     | 19 |
| ▼ IDT 10S60C | SP000096443 | P-TO220-3-1  | 600 | 2 x 5 | 24 |
| ▼ IDT 12S60C | SP000096444 | P-TO220-3-1  | 600 | 2 x 6 | 30 |
| ▼ IDT 16S60C | SP000080227 | P-TO220-3-1  | 600 | 2 x 8 | 38 |

SMD = Surface Mounted Device

| Type | Ordering Code | Package | Data     |                  |              |
|------|---------------|---------|----------|------------------|--------------|
|      |               |         | $V_{DS}$ | $I_{L-ISO-Norm}$ | $R_{DS(on)}$ |
|      |               |         | V        | A                | mΩ           |

## Smart Low Side Switches

### TEMPFET®

#### N-Channel Enhancement Types

|                    |             |              |     |      |     |
|--------------------|-------------|--------------|-----|------|-----|
| BTS 110            | SP000011184 | P-TO220-3-1  | 100 | 1.75 | 200 |
| ▼ BTS 110 E-3045A  | SP000011183 | P-TO220-3-45 | 100 | 1.75 | 200 |
| BTS 112A           | SP000011185 | P-TO220-3-1  | 60  | 2.5  | 150 |
| ▼ BTS 112A E-3045A | SP000011186 | P-TO220-3-45 | 60  | 2.5  | 150 |
| BTS 114A           | SP000011191 | P-TO220-3-1  | 50  | 3.8  | 100 |
| ▼ BTS 114A E-3045A | SP000011192 | P-TO220-3-45 | 50  | 3.8  | 100 |
| BTS 129            | SP000011202 | P-TO220-3-1  | 60  | 7.5  | 50  |
| ▼ BTS 129 E-3045A  | SP000011203 | P-TO220-3-45 | 60  | 7.5  | 50  |
| BTS 240A           | SP000011223 | P-TO218-3-1  | 50  | 21   | 50  |

#### N-Channel Enhancement Types (Logic Level)

|                    |             |               |     |     |     |
|--------------------|-------------|---------------|-----|-----|-----|
| BTS 113A           | SP000011187 | P-TO220-3-1   | 60  | 2.2 | 170 |
| BTS 113A E-3045A   | SP000011188 | P-TO220-3-45  | 60  | 2.2 | 170 |
| ▼ BTS 113A E-3064  | SP000011189 | P-TO220-3-64  | 60  | 2.2 | 170 |
| BTS 115A           | SP000011193 | P-TO220-3-1   | 50  | 3.2 | 120 |
| ▼ BTS 115A E-3045A | SP000011194 | P-TO220-3-45  | 50  | 3.2 | 120 |
| BTS 121A           | SP000011200 | P-TO220-3-1   | 100 | 3.5 | 100 |
| BTS 121A E-3045A   | SP000011201 | P-TO220-3-45  | 100 | 3.5 | 100 |
| BTS 131            | SP000011204 | P-TO220-3-1   | 50  | 6.5 | 60  |
| BTS 131 E-3045A    | SP000011206 | P-TO220-3-45  | 50  | 6.5 | 60  |
| ▼ BTS 132 E-3045A  | SP000011210 | P-TO220-3-45  | 60  | 6.0 | 65  |
| ▼ BTS 132 E-3064   | SP000011209 | P-TO220-3-64  | 60  | 6.0 | 65  |
| ▼ BTS 132 E-3129   | SP000011208 | P-TO220-3-129 | 60  | 6.0 | 65  |

### SPEED TEMPFET®

#### N-Channel Enhancement Types

|                   |             |               |    |    |     |
|-------------------|-------------|---------------|----|----|-----|
| BTS 244Z          | SP000012177 | P-TO220-5-3   | 55 | 19 | 18  |
| ▼ BTS 244Z E-3043 | SP000012178 | P-TO220-5-43  | 55 | 19 | 18  |
| BTS 244Z E-3062A  | SP000012180 | P-TO220-5-62  | 55 | 19 | 18  |
| BTS 247Z          | SP000012184 | P-TO220-5-3   | 55 | 26 | 13  |
| ▼ BTS 247Z E-3043 | SP000012185 | P-TO220-5-43  | 55 | 26 | 13  |
| BTS 247Z E-3062A  | SP000012187 | P-TO220-5-62  | 55 | 26 | 13  |
| BTS 282Z          | SP000012356 | P-TO220-7-3   | 49 | 36 | 6.5 |
| BTS 282Z E-3180A  | SP000012360 | P-TO220-7-180 | 49 | 36 | 6.5 |
| ▼ BTS 282Z E-3230 | SP000012357 | P-TO220-7-230 | 49 | 36 | 6.5 |

SMD = Surface Mounted Device

| Type | Ordering Code | Package | Data     |                  |              |
|------|---------------|---------|----------|------------------|--------------|
|      |               |         | $V_{DS}$ | $I_{L-ISO-Norm}$ | $R_{DS(on)}$ |
|      |               |         | V        | A                | mΩ           |

## Smart Low Side Switches

### HITFET®

|                    |             |              |      |      |         |
|--------------------|-------------|--------------|------|------|---------|
| BSP 75N            | SP000013690 | SOT223       | > 60 | 0.7  | 550     |
| ▼ BSP 75N E-6327   | SP000013689 | SOT223       | > 60 | 0.7  | 550     |
| BSP 76 E-6327      | SP000011146 | SOT223       | > 42 | 1.4  | 200     |
| BSP 77 E-6327      | SP000011150 | SOT223       | > 42 | 2.17 | 100     |
| BSP 78 E-6327      | SP000011155 | SOT223       | > 42 | 3.0  | 50      |
| BTS 117            | SP000011195 | P-TO220-3-1  | > 60 | 3.5  | 100     |
| ▼ BTS 117 E-3044A  | SP000011198 | P-TO220-3-44 | > 60 | 3.5  | 100     |
| BTS 117 E-3045A    | SP000011197 | P-TO220-3-45 | > 60 | 3.5  | 100     |
| BTS 118D           | SP000011199 | P-TO252-3-11 | > 42 | 2.4  | 100     |
| BTS 133            | SP000011211 | P-TO220-3-1  | > 60 | 7    | 50      |
| BTS 133 E-3045A    | SP000011213 | P-TO220-3-45 | > 60 | 7    | 50      |
| BTS 133 E-3064     | SP000011212 | P-TO220-3-45 | > 60 | 7    | 50      |
| BTS 134D           | SP000011216 | P-TO252-3-1  | > 42 | 3.5  | 50      |
| BTS 141            | SP000011218 | P-TO220-3-1  | > 60 | 12   | 28      |
| BTS 141 E-3045A    | SP000011219 | P-TO220-3-45 | > 60 | 12   | 28      |
| ▼ BTS 141 E-3064   | SP000011220 | P-TO220-3-64 | > 60 | 12   | 28      |
| BTS 142D           | SP000012175 | P-TO252-3-1  | > 42 | 4.6  | 28      |
| BTS 3110N          | SP000013948 | SOT223       | > 42 | 1.4  | 200     |
| BTS 3118D          | SP000013725 | P-TO252--3-1 | > 42 | 2.4  | 100     |
| ▼ BTS 3118N        | SP000013724 | SOT223       | > 42 | 2.4  | 100     |
| BTS 3134D          | SP000013759 | P-TO252-3-1  | > 42 | 3.5  | 50      |
| BTS 3134N          | SP000013758 | SOT223       | > 42 | 3.5  | 50      |
| BTS 3142D          | SP000013760 | P-TO252-3-1  | > 42 | 4.6  | 28      |
| BTS 3207N          | SP000054875 | SOT223       | > 42 | 0.64 | 500     |
| BTS 3408G (Dual)   | SP000014072 | P-DSO-8-3    | > 60 | 1.0  | 2 x 550 |
| ▼ BTS 3410G (Dual) | SP000014334 | P-DSO-8-3    | > 42 | 1.3  | 2 x 200 |

SMD = Surface Mounted Device

| Type                           | Ordering Code | Package      | Description                                                                                                                       |
|--------------------------------|---------------|--------------|-----------------------------------------------------------------------------------------------------------------------------------|
| <b>Smart Low Side Switches</b> |               |              |                                                                                                                                   |
| <b>Multichannel HITFET®</b>    |               |              |                                                                                                                                   |
| TLE 4226G                      | SP000011756   | P-DSO-24-3   | 6-fold low-side switch, 2 × 0.5 A, 4 × 50 mA                                                                                      |
| TLE 6214L                      | SP000014123   | P-DSO-12-2   | Dual current sense switch with SPI, 2 × 5 A                                                                                       |
| TLE 6215G                      | SP000013649   | P-DSO-24-3   | Two channel low-side switch, 2 × 4 A                                                                                              |
| TLE 6216G                      | SP000013652   | P-DSO-20-12  | Quad channel low-side switch, 2 × 5 A, 2 × 3 A                                                                                    |
| TLE 6217G                      | SP000013947   | P-DSO-20-12  |                                                                                                                                   |
| TLE 6220GP                     | SP000011903   | P-DSO-20-10  | Quad channel low-side switch, 4 × 3 A                                                                                             |
| TLE 6225G                      | SP000012168   | P-DSO-20-6   | Quad channel low-side switch, 4 × 0.5 A                                                                                           |
| TLE 6228GP                     | SP000012154   | P-DSO-20-10  | Quad channel low-side switch, 2 × 5 A, 2 × 3 A                                                                                    |
| TLE 6230GP                     | SP000012169   | P-DSO-36-10  | Octal low-side switch, 8 × 1 A                                                                                                    |
| TLE 6232GP                     | SP000012541   | P-DSO-36-12  | Six channel low-side switch, 4 × 3 A, 2 × 1.5 A                                                                                   |
| TLE 6236G                      | SP000012767   | P-DSO-28-1   | Octal channel low-side switch with SPI, 8 × 0.5 A                                                                                 |
| TLE 6237G                      | SP000014095   | P-DSO-28-1   | Octal channel low-side switch with SPI, 8 × 0.5 A                                                                                 |
| TLE 6240GP                     | SP000012171   | P-DSO-36-10  | 16-fold low-side switch, 8 × 1 A, 8 × 3 A                                                                                         |
| TLE 6244X                      | SP000013785   | P-MQFP-64-10 | 18-channel low-side switch with SPI, 2 × 3.0 A, 12 × 2.2 A, 4 × 1.1 A                                                             |
| TLE 6288R                      | SP000013727   | P-DSO-36-10  | 6-channel low-side switch with SPI, 3-channel high side with adjustable P&H current control, 3-channel high/low side configurable |
| ▼ TLE 7230G                    | SP000067169   | P-DSO-24-3   | SPI driver for enhanced relay control (SPIDER) 8-channel low side switch, tape & reel                                             |
| ▼ TLE 7230R                    | SP000067170   | P-DSO-36-16  | Smart octal low side switch, power, with SPI, tape & reel                                                                         |
| ▼ TLE 7232G                    | SP000089034   | P-DSO-24-3   | SPI driver for enhanced relay control (SPIDER) 8-channel low side switch, tape & reel                                             |

SMD = Surface Mounted Device

| Type | Ordering Code | Package | Data     |                  |              |
|------|---------------|---------|----------|------------------|--------------|
|      |               |         | $V_{DS}$ | $I_{L-ISO-Norm}$ | $R_{DS(on)}$ |
|      |               |         | V        | A                | mΩ           |

## Smart High Side Switches

### PROFET® (for automotive applications)

|                     |             |               |      |      |     |
|---------------------|-------------|---------------|------|------|-----|
| BTS 307 E-3043      | SP000011224 | P-TO220-5-43  | > 65 | 1.7  | 250 |
| BTS 307 E-3062A     | SP000011225 | P-TO220-5-62  | > 65 | 1.7  | 250 |
| ▼ BTS 308 E-3043    | SP000011226 | P-TO220-5-43  | > 60 | 1.7  | 250 |
| BTS 308 E-3062A     | SP000011227 | P-TO220-5-62  | > 60 | 1.3  | 300 |
| BTS 409L1           | SP000011229 | P-TO220-5-3   | > 40 | 3.5  | 100 |
| BTS 409L1 E-3043    | SP000011230 | P-TO220-5-43  | > 40 | 2.3  | 200 |
| ▼ BTS 409L1 E-3062A | SP000011232 | P-TO220-5-62  | > 40 | 2.3  | 200 |
| BTS 410E2           | SP000011233 | P-TO220-5-3   | > 60 | 1.8  | 220 |
| BTS 410E2 E-3043    | SP000011234 | P-TO220-5-43  | > 60 | 1.8  | 220 |
| BTS 410E2 E-3062A   | SP000011235 | P-TO220-5-62  | > 60 | 1.8  | 220 |
| BTS 410F2           | SP000011236 | P-TO220-5-3   | > 60 | 1.8  | 220 |
| BTS 410F2 E-3043    | SP000011237 | P-TO220-5-43  | > 60 | 1.8  | 220 |
| BTS 410F2 E-3062A   | SP000016371 | P-TO220-5-62  | > 60 | 1.8  | 220 |
| BTS 426L1           | SP000011242 | P-TO220-5-3   | > 40 | 5.9  | 60  |
| BTS 426L1 E-3043    | SP000011243 | P-TO220-5-43  | > 40 | 5.9  | 60  |
| BTS 426L1 E-3062A   | SP000011244 | P-TO220-5-62  | > 40 | 5.9  | 60  |
| BTS 428L2           | SP000012188 | P-TO252-3-1   | > 40 | 7.0  | 60  |
| BTS 432E2           | SP000011248 | P-TO220-5-3   | > 60 | 11   | 38  |
| BTS 432E2 E-3043    | SP000011250 | P-TO220-5-43  | > 60 | 11   | 38  |
| BTS 432E2 E-3062A   | SP000011253 | P-TO220-5-62  | > 60 | 11   | 38  |
| BTS 436L2           | SP000011255 | P-TO220-5-11  | > 40 | 9.8  | 38  |
| BTS 436L2G          | SP000011257 | P-TO263-5-2   | > 40 | 9.8  | 38  |
| BTS 436L2S          | SP000011256 | P-TO220-5-12  | > 40 | 9.8  | 38  |
| BTS 441RG           | SP000013386 | P-TO263-5-2   | > 41 | 21   | 20  |
| BTS 441RS           | SP000013384 | P-TO220-5-12  | > 41 | 21   | 20  |
| BTS 441T            | SP000011258 | P-TO220-5-11  | > 40 | 21   | 20  |
| BTS 441TG           | SP000012295 | P-TO263-5-2   | > 40 | 21   | 20  |
| BTS 441TS           | SP000011259 | P-TO220-5-12  | > 40 | 21   | 20  |
| BTS 442E2           | SP000011260 | P-TO220-5-3   | > 60 | 21   | 20  |
| BTS 442E2 E-3043    | SP000011261 | P-TO220-5-43  | > 60 | 21   | 20  |
| BTS 442E2 E-3062A   | SP000011263 | P-TO220-5-62  | > 60 | 21   | 20  |
| BTS 640S2           | SP000011283 | P-TO220-7-11  | > 40 | 12.6 | 30  |
| BTS 640S2G          | SP000011284 | P-TO263-7-2   | > 40 | 12.6 | 30  |
| BTS 640S2S          | SP000011285 | P-TO220-7-12  | > 40 | 12.6 | 30  |
| BTS 650P            | SP000011287 | P-TO220-7-3   | > 42 | 60   | 6.6 |
| BTS 650P E-3180A    | SP000011289 | P-TO220-7-180 | > 42 | 60   | 6.6 |
| ▼ BTS 650P E-3230   | SP000011292 | P-TO220-7-230 | > 42 | 60   | 6.6 |

### PROFET® (for industrial applications)

|                    |             |              |      |      |     |
|--------------------|-------------|--------------|------|------|-----|
| ▼ ITS 410E2        | SP000221219 | P-TO220-5-3  | > 60 | 1.8  | 220 |
| ▼ ITS 410E2 E-3043 | SP000221227 | P-TO220-5-43 | > 60 | 1.8  | 220 |
| ▼ ITS 428L2        | SP000221220 | P-TO252-3-1  | > 40 | 7.0  | 60  |
| ▼ ITS 436L2        | SP000221231 | P-TO220-5-11 | > 40 | 9.8  | 38  |
| ▼ ITS 436L2S       | SP000221232 | P-TO220-5-12 | > 40 | 9.8  | 38  |
| ▼ ITS 640S2        | SP000221217 | P-TO220-7-11 | > 40 | 12.6 | 30  |
| ▼ ITS 640S2S       | SP000221225 | P-TO220-7-12 | > 40 | 12.6 | 30  |

SMD = Surface Mounted Device

| Type | Ordering Code | Package | Data     |                  |              |
|------|---------------|---------|----------|------------------|--------------|
|      |               |         | $V_{DS}$ | $I_{L-ISO-Norm}$ | $R_{DS(on)}$ |
|      |               |         | V        | A                | mΩ           |

## Smart High Side Switches

### High Current PROFET®

|                  |             |               |      |      |     |
|------------------|-------------|---------------|------|------|-----|
| BTS 443P         | SP000012530 | P-TO252-5-1   | > 36 | 25   | 16  |
| BTS 550P E-3146  | SP000011264 | P-TO218-5-146 | > 40 | 115  | 3.6 |
| ▼ BTS 555        | SP000011266 | P-TO218-5-3   | > 40 | 165  | 2.5 |
| BTS 555 E-3146   | SP000011265 | P-TO218-5-146 | > 40 | 165  | 2.5 |
| BTS 660P         | SP000012535 | P-TO220-7-3   | > 62 | 44   | 9.0 |
| BTS 660P E-3180A | SP000012536 | P-TO220-7-180 | > 62 | 44   | 9.0 |
| ▼ BTS 6123B      | SP000092062 | P-TO220-7-180 | > 38 | 9    | 10  |
| ▼ BTS 6123P      | SP000092063 | P-TO220-7-230 | > 38 | 33   | 10  |
| BTS 6133D        | SP000014006 | P-TO252-5-1   | > 38 | 33   | 10  |
| ▼ BTS 6142D      | SP000074866 | P-TO252-5-1   | > 38 | 27   | 12  |
| BTS 6143D        | SP000013143 | P-TO252-5-1   | > 38 | 33   | 10  |
| BTS 6144B        | SP000014073 | P-TO220-7-180 | > 38 | 37.5 | 9   |
| BTS 6144P        | SP000013171 | P-TO220-7-230 | > 38 | 37.5 | 9   |
| BTS 6163D        | SP000013196 | P-TO252-5-1   | > 62 | 17   | 20  |
| BTS 6510B        | SP000012532 | P-TO220-7-180 | > 42 | 70   | 6.0 |

| Type | Ordering Code | Package | Data        |                  |          |                  |
|------|---------------|---------|-------------|------------------|----------|------------------|
|      |               |         | $V_{bb op}$ | $I_{L-ISO-Norm}$ | $R_{ON}$ | $I_{L(lin) min}$ |
|      |               |         | V           | mA               | Ω        | mA               |

### Mini PROFET®(for automotive applications)

|                |             |             |            |       |      |      |
|----------------|-------------|-------------|------------|-------|------|------|
| BSP 452 E-6327 | SP000011123 | SOT223      | 5 ... 34   | > 700 | 0.2  | 700  |
| BSP 742R       | SP000012105 | P-DSO-8-6   | 5 ... 34   | > 400 | 0.35 | 400  |
| BSP 742RI      | SP000012106 | P-DSO-8-6   | 5 ... 34   | > 400 | 0.35 | 400  |
| BSP 742T       | SP000011136 | P-DSO-8-6   | 5 ... 34   | 1100  | 0.4  | 300  |
| BSP 752R       | SP000012796 | P-DSO-8-6   | 6 ... 52   | 1700  | 0.2  | 600  |
| BSP 752T       | SP000012797 | P-DSO-8-6   | 6 ... 52   | 1700  | 0.2  | 600  |
| BSP 762T       | SP000011148 | P-DSO-8-6   | 5 ... 34   | 2400  | 0.1  | 700  |
| BSP 772T       | SP000011152 | P-DSO-8-6   | 5 ... 34   | 3100  | 0.06 | 1200 |
| BTS 452R       | SP000012791 | P-TO252-5-1 | 6 ... 52   | 2200  | 0.20 | 600  |
| BTS 452T       | SP000012792 | P-TO252-5-1 | 6 ... 52   | 2200  | 0.20 | 600  |
| BTS 462T       | SP000012191 | P-TO252-5-1 | 5 ... 34   | 4400  | 0.10 | 1000 |
| BTS 4140N      | SP000013791 | SOT223      | 4.9 ... 60 | > 200 | 1    | 700  |
| BTS 4141D      | SP000013944 | P-TO252-5-1 | 12 ... 45  | > 700 | 0.2  | 1400 |
| BTS 4141N      | SP000013942 | SOT223      | 12 ... 45  | > 700 | 0.2  | 1400 |
| BTS 4142N      | SP000013945 | SOT223      | 12 ... 45  | >1400 | 0.2  | 3000 |
| BTS 4880R      | SP000013302 | P-DSO-36-12 | 11 ... 45  | >1400 | 0.2  | 1100 |

### Mini PROFET®(for industrial applications)

|             |             |            |          |       |      |      |
|-------------|-------------|------------|----------|-------|------|------|
| ▼ ISP 452   | SP000219823 | SOT223     | 5 ... 34 | > 700 | 0.2  | 700  |
| ▼ ISP 742RI | SP000221229 | PG-DSO-8-6 | 5 ... 34 | > 400 | 0.35 | 400  |
| ▼ ISP 752R  | SP000219825 | PG-DSO-8-6 | 6 ... 52 | 1700  | 0.2  | 600  |
| ▼ ISP 762T  | SP000221228 | PG-DSO-8-6 | 5 ... 34 | 2400  | 0.1  | 700  |
| ▼ ISP 772T  | SP000219824 | PG-DSO-8-6 | 5 ... 34 | 3100  | 0.06 | 1200 |

SMD = Surface Mounted Device

| Type | Ordering Code | Package | Data         |                  |          |                     |
|------|---------------|---------|--------------|------------------|----------|---------------------|
|      |               |         | $V_{bb\ op}$ | $I_{L-ISO-Norm}$ | $R_{ON}$ | $I_{L\ (lin)\ min}$ |
|      |               |         | V            | mA               | $\Omega$ | mA                  |

## Smart High Side Switches

### Mini PROFET® (for industrial applications) (cont'd)

|             |             |              |           |       |     |      |
|-------------|-------------|--------------|-----------|-------|-----|------|
| ▼ ITS 4141D | SP000221235 | P-TO252-5-1  | 12 ... 45 | > 700 | 0.2 | 1400 |
| ▼ ITS 4141N | SP000219536 | SOT223       | 12 ... 45 | > 700 | 0.2 | 1400 |
| ▼ ITS 4142N | SP000221218 | SOT223       | 12 ... 45 | >1400 | 0.2 | 3000 |
| ▼ ITS 4880R | SP000219527 | PG-DSO-36-12 | 11 ... 45 | >1400 | 0.2 | 1100 |

| Type | Ordering Code | Package | Data           |            |                  |                  |
|------|---------------|---------|----------------|------------|------------------|------------------|
|      |               |         | $V_{bb\ (AZ)}$ | $R_{ON}$   | $I_{L-ISO-Norm}$ | $I_{L-MOS-Norm}$ |
|      |               |         | V              | m $\Omega$ | A                | A                |

### Dimmer PROFET®

|         |             |            |      |    |     |    |
|---------|-------------|------------|------|----|-----|----|
| BTS 730 | SP000011308 | P-DSO-20-9 | > 40 | 65 | 3.0 | 20 |
|---------|-------------|------------|------|----|-----|----|

| Type | Ordering Code | Package | Data           |                  |            |
|------|---------------|---------|----------------|------------------|------------|
|      |               |         | $V_{bb\ (AZ)}$ | $I_{L-ISO-Norm}$ | $R_{ON}$   |
|      |               |         | V              | A                | m $\Omega$ |

### Two Channel PROFET® (for automotive applications)

|                    |             |               |      |     |         |
|--------------------|-------------|---------------|------|-----|---------|
| BTS 5210G          | SP000013631 | P-DSO-14-9    | > 40 | 3.9 | 2 × 70  |
| BTS 5210L          | SP000013735 | P-DSO-12-2    | > 40 | 3.9 | 2 × 70  |
| BTS 5215L          | SP000013737 | P-DSO-12-2    | > 40 | 7.4 | 2 × 45  |
| ▼ BTS 5230GS       | SP000082241 | P-DSO-14-18   | > 28 | 2.1 | 2 × 140 |
| ▼ BTS 5231GS       | SP000203741 | P-DSO-14-18   | > 28 | 1.8 | 2 × 140 |
| BTS 5234G          | SP000014727 | P-DSO-20-9    | > 40 | 3.3 | 2 × 60  |
| BTS 5234L          | SP000014704 | P-DSO-12-2    | > 40 | 3.5 | 2 × 60  |
| BTS 5240G          | SP000014567 | P-DSO-20-9    | > 40 | 5.9 | 2 × 25  |
| BTS 5240L          | SP000014002 | P-DSO-12-2    | > 40 | 6.0 | 2 × 25  |
| BTS 5241G          | SP000014738 | P-DSO-20-9    | > 40 | 5.9 | 2 × 25  |
| BTS 5241L          | SP000014643 | P-DSO-12-2    | > 40 | 6.0 | 2 × 25  |
| BTS 611L1          | SP000011269 | P-TO220-7-3   | > 40 | 2.3 | 2 × 200 |
| BTS 611L1 E-3128A  | SP000011271 | P-TO220-7-128 | > 40 | 2.3 | 2 × 200 |
| ▼ BTS 611L1 E-3230 | SP000011270 | P-TO220-7-230 | > 40 | 2.3 | 2 × 200 |
| BTS 612N1 E-3128A  | SP000011274 | P-TO220-7-128 | > 40 | 2.3 | 2 × 200 |
| BTS 612N1 E-3230   | SP000011275 | P-TO220-7-230 | > 40 | 2.3 | 2 × 200 |
| BTS 621L1          | SP000011277 | P-TO220-7-3   | > 40 | 4.4 | 2 × 100 |
| BTS 621L1 E-3128A  | SP000011281 | P-TO220-7-128 | > 40 | 4.4 | 2 × 100 |
| BTS 621L1 E-3230   | SP000011278 | P-TO220-7-230 | > 40 | 4.4 | 2 × 100 |
| BTS 707            | SP000011296 | P-DSO-20-9    | > 65 | 2.8 | 2 × 250 |
| BTS 723GW          | SP000013173 | P-DSO-14-9    | > 62 | 4.2 | 2 × 50  |
| BTS 726L1          | SP000011305 | P-DSO-20-9    | > 40 | 4.0 | 2 × 60  |
| BTS 728L2          | SP000011307 | P-DSO-20-9    | > 40 | 4.0 | 2 × 60  |

SMD = Surface Mounted Device

# Power Semiconductors

| Type | Ordering Code | Package | Data         |                  |          |
|------|---------------|---------|--------------|------------------|----------|
|      |               |         | $V_{bb(AZ)}$ | $I_{L-ISO-Norm}$ | $R_{ON}$ |
|      |               |         | V            | A                | mΩ       |

## Smart High Side Switches

### Two Channel PROFET® (for automotive applications) (cont'd)

|           |             |            |      |      |        |
|-----------|-------------|------------|------|------|--------|
| BTS 736L2 | SP000011310 | P-DSO-20-9 | > 40 | 4.8  | 2 × 40 |
| BTS 840S2 | SP000011324 | P-DSO-20-9 | > 40 | 12.6 | 2 × 30 |

### Two Channel PROFET® (for industrial applications)

|                    |             |               |      |     |         |
|--------------------|-------------|---------------|------|-----|---------|
| ▼ ITS 612N1        | SP000221233 | P-TO220-7-3   | > 40 | 2.3 | 2 × 200 |
| ▼ ITS 612N1 E-3230 | SP000221234 | P-TO220-7-230 | > 40 | 2.3 | 2 × 200 |
| ▼ ITS 621L1        | SP000219533 | PG-TO220-7-3  | > 40 | 2.3 | 2 × 200 |
| ▼ ITS 621L1 E-3230 | SP000221224 | P-TO220-7-230 | > 40 | 2.3 | 2 × 200 |
| ▼ ITS 5215L        | SP000219826 | PG-DSO-12-2   | > 40 | 7.4 | 2 × 45  |

### Four Channel PROFET® (for automotive applications)

|           |             |             |      |      |          |
|-----------|-------------|-------------|------|------|----------|
| BTS 711L1 | SP000011298 | P-DSO-20-9  | > 34 | 1.9  | 4 × 200  |
| BTS 712N1 | SP000011300 | P-DSO-20-9  | > 40 | 1.9  | 4 × 210  |
| BTS 716G  | SP000013190 | P-DSO-20-9  | > 40 | 2.6  | 4 × 140  |
| BTS 716GB | SP000014327 | P-DSO-20-9  | > 40 | 2.6  | 4 × 140  |
| BTS 721L1 | SP000011301 | P-DSO-20-9  | > 40 | 2.9  | 4 × 100  |
| BTS 724G  | SP000013193 | P-DSO-20-9  | > 40 | 7.3  | 4 × 22.5 |
| BTS 737S3 | SP000014328 | P-DSO-28-16 | > 40 | 5.4  | 4 × 35   |
| BTS 5434G | SP000014710 | P-DSO-28-16 | > 40 | 3.4  | 4 × 60   |
| BTS 5440G | SP000014185 | P-DSO-28-16 | > 40 | 6.2  | 4 × 25   |
| BTS 5441G | SP000014644 | P-DSO-28-16 | > 40 | 5.6  | 4 × 25   |
| BTS 824R  | SP000013628 | P-DSO-20-10 | > 40 | 17.0 | 4 × 90   |

### Four Channel PROFET® (for industrial applications)

|             |             |             |      |     |          |
|-------------|-------------|-------------|------|-----|----------|
| ▼ ITS 711L1 | SP000219532 | PG-DSO-20-9 | > 34 | 1.9 | 4 × 200  |
| ▼ ITS 716G  | SP000219534 | PG-DSO-20-9 | > 40 | 2.6 | 4 × 140  |
| ▼ ITS 724G  | SP000219835 | PG-DSO-20-9 | > 40 | 7.3 | 4 × 22.5 |

SMD = Surface Mounted Device

| Type                         | Ordering Code | Package      | Description                                                                            |
|------------------------------|---------------|--------------|----------------------------------------------------------------------------------------|
| <b>Smart Power Bridges</b>   |               |              |                                                                                        |
| <b>Stepper Motor Drivers</b> |               |              |                                                                                        |
| TCA 3727                     | SP000011713   | P-DIP-20-3   | Stepper motor driver, 2-phase motor, 2 × 1 A / 50 V                                    |
| TCA 3727G                    | SP000011714   | P-DSO-24-3   |                                                                                        |
| TLE 4726G                    | SP000011863   | P-DSO-24-3   |                                                                                        |
| TLE 4727                     | SP000011864   | P-DIP-20-3   | Stepper motor driver, 2-phase motor, 2 × 1 A / 45 V                                    |
| TLE 4728G                    | SP000011865   | P-DSO-24-3   |                                                                                        |
| TLE 4729G                    | SP000011867   | P-DSO-24-3   | Stepper motor driver, 2-phase with low quiescent current, 2 × 1 A / 45 V               |
| <b>DC Motor Bridges</b>      |               |              |                                                                                        |
| BTS 7700G                    | SP000012368   | P-DSO-28-16  | TrilithIC™, bridge or quad driver, 8 A, status, tape & reel                            |
| BTS 7710G                    | SP000012774   | P-DSO-28-16  | TrilithIC™, bridge or quad driver, 12 A, status, tape & reel                           |
| BTS 7710GP                   | SP000012778   | P-TO263-15-1 | TrilithIC™, bridge or quad driver, 12 A, status, PowerPak, tape & reel                 |
| BTS 7740G                    | SP000012371   | P-DSO-28-16  | TrilithIC™, bridge or quad driver, 8 A, status, short circuit protection; tape & reel  |
| BTS 7741G                    | SP000013912   | P-DSO-28-16  |                                                                                        |
| BTS 7750G                    | SP000012779   | P-DSO-28-16  | TrilithIC™, bridge or quad driver, 12 A, status, short circuit protection, tape & reel |
| BTS 7750GP                   | SP000012780   | P-TO263-15-1 | TrilithIC™, bridge or quad driver, 12 A, status, PowerPak, tape & reel                 |
| BTS 7751G                    | SP000014077   | P-DSO-28-16  | TrilithIC™, bridge or quad driver, 12 A, status, short circuit protection, tape & reel |
| BTS 7810K                    | SP000014521   | P-TO263-15-1 | TrilithIC™, bridge or quad driver, 42 A, status, PowerPak, tape & reel                 |
| ▼ BTS 7930B                  | SP000065799   | P-TO263-7-6  | 28 mΩ NovalithIC™, high current PN half bridge driver, 18 A, status, tape & reel       |
| ▼ BTS 7960B                  | SP000014711   | P-TO263-7-6  | 16 mΩ NovalithIC™, high current PN half bridge driver, 43 A, status, tape & reel       |
| ▼ BTS 7960P                  | SP000053907   | P-TO220-7-1  | 16 mΩ NovalithIC™, high current PN half bridge driver, 43 A, status, tube              |
| TLE 4205                     | SP000011746   | P-DIP-18-3   | Power bridges for DC-motor control, 1 A / 32 V, tube                                   |
| TLE 4205G                    | SP000011747   | P-DSO-20-6   | Power bridges for DC-motor control, 1 A / 32 V, tape & reel                            |
| TLE 4206G                    | SP000011748   | P-DSO-14-4   | DC-motor driver for servo driver 1 A / 18 V, tape & reel                               |
| TLE 4207G                    | SP000011750   | P-DSO-14-4   | Dual half bridge driver, 2 × 1 A / 18 V, tape & reel                                   |
| TLE 4208G                    | SP000012143   | P-DSO-28-6   | Quad half bridge driver, 2 × 1 A / 18 V, tape & reel                                   |
| TLE 4209A                    | SP000012194   | P-DIP-8-4    | DC-motor driver for servo driver 1 A / 18 V, tube                                      |
| TLE 5205-2                   | SP000011886   | P-TO220-7-11 | Power bridges for DC-motor control, 5 A / 40 V, tube                                   |
| TLE 5205-2S                  | SP000011887   | P-TO220-7-12 |                                                                                        |
| TLE 5205-2G                  | SP000011890   | P-TO263-7-1  | Power bridges for DC-motor control, 5 A / 40 V, tape & reel                            |
| TLE 5205-2GP                 | SP000011891   | P-DSO-20-12  |                                                                                        |
| TLE 5206-2                   | SP000011892   | P-TO220-7-11 | Power bridges for DC-motor control, 5 A / 40 V, tube                                   |
| TLE 5206-2S                  | SP000011893   | P-TO220-7-22 |                                                                                        |
| TLE 5206-2G                  | SP000011894   | P-TO263-7-1  | Power bridges for DC-motor control, 5 A / 40 V, tape & reel                            |
| TLE 5206-2GP                 | SP000011895   | P-DSO-20-12  |                                                                                        |
| TLE 6208-3G                  | SP000012148   | P-DSO-14-4   | Triple half-bridge driver, 3 × 0.8 A / 32 V, tape & reel                               |
| TLE 6208-6G                  | SP000012975   | P-DSO-28-6   | Hex half-bridge driver / double six driver, tape & reel                                |
| TLE 6209R                    | SP000013299   | P-DSO-20-12  | Hex half-bridge driver for throttle control, 7 A, tape & reel                          |

SMD = Surface Mounted Device

## Power Semiconductors

| Type                                                | Ordering Code | Package     | Description                                                                                    |
|-----------------------------------------------------|---------------|-------------|------------------------------------------------------------------------------------------------|
| <b>Smart Power Bridges</b>                          |               |             |                                                                                                |
| <b>DC Motor Bridges</b><br>(cont'd)                 |               |             |                                                                                                |
| TLE 6281G                                           | SP000107818   | P-DSO-20-10 | Half-bridge driver IC for external MOSFETs for very high currents, tape reel                   |
| TLE 6282G                                           | SP000081973   | P-DSO-20-10 | Dual half-bridge driver IC for 4 external MOSFETs for very high currents, tape reel            |
| ▼ TLE 6284G                                         | SP000083033   | P-DSO-20-10 | Half-bridge gate driver IC for 4 MOSFETs, short circuit protection level adjustable, tape reel |
| TLE 6287GP                                          | SP000014090   | P-DSO-36-10 | 3-phase driver IC for 6 MOSFETs in bridge configuration, tape & reel                           |
| TLE 6289GP                                          | SP000014724   | P-DSO-36-10 |                                                                                                |
| TLE 7209-2R                                         | SP000014748   | P-DSO-20-12 | Half-bridge driver for throttle control, 7 A, with SPI and status flag mode, tape & reel       |
| <b>IGBT Gate Driver ICs</b><br><b>(EiceDRIVER™)</b> |               |             |                                                                                                |
| ▼ 2ED020I12F                                        | SP000014669   | P-DSO-18-1  | Half-bridge IGBT driver IC, gate drive currents of +1A/-2A (EiceDRIVER™)                       |
| ▼ 2ED020I12F                                        | SP000107512   | PG-DSO-18-1 | Half-bridge IGBT driver IC (1200V), gate drive currents of +1A/-2A (EiceDRIVER™)               |

SMD = Surface Mounted Device

| Type | Ordering Code | Package | Description |
|------|---------------|---------|-------------|
|------|---------------|---------|-------------|

## Voltage Regulators

### Automotive Linear

#### Adj. 1.5 V, 2.6 V, 3.0 V and 3.3 V Standard Regulators

|                 |             |               |                                                                                                      |
|-----------------|-------------|---------------|------------------------------------------------------------------------------------------------------|
| TLE 4295G V26   | SP000012503 | SCT595        | 2.6 V, $I_{out} = 30$ mA, Reset, Power fail, tape & reel                                             |
| TLE 4295G V30   | SP000012502 | SCT595        | 3 V, $I_{out} = 30$ mA, Reset, Power fail, tape & reel                                               |
| TLE 4295G V33   | SP000012501 | SCT595        | 3.3 V, $I_{out} = 30$ mA, Reset, Power fail, tape & reel                                             |
| TLE 4296G V30   | SP000012764 | SCT595        | 3 V, $I_{out} = 30$ mA, Inhibit, tape & reel                                                         |
| TLE 4296G V33   | SP000012765 | SCT595        | 3.3 V, $I_{out} = 30$ mA, Inhibit, tape & reel                                                       |
| TLE 4296-2G V33 | SP000014332 | SCT595        | 3.3 V, $I_{out} = 30$ mA, Inhibit, reduced quiescent current, tape & reel                            |
| TLE 4274D V33   | SP000011803 | P-TO252-3-1   | 3.3 V, $I_{out} = 400$ mA, tape & reel                                                               |
| TLE 4274GS V25  | SP000011807 | SOT223        | 2.5 V, $I_{out} = 400$ mA, tape & reel                                                               |
| TLE 4274GS V33  | SP000011806 | SOT223        | 3.3 V, $I_{out} = 400$ mA, tape & reel                                                               |
| TLE 4276DV      | SP000012197 | P-TO252-5-1   | adjustable voltage, $I_{out} = 400$ mA, Inhibit, tape & reel                                         |
| TLE 4276GV      | SP000011824 | P-TO220-5-122 | adjustable voltage, $I_{out} = 400$ mA, Inhibit, tape & reel                                         |
| TLE 4276SV      | SP000011831 | P-TO220-5-43  | adjustable voltage, $I_{out} = 400$ mA, Inhibit, tube                                                |
| TLE 4276V       | SP000011835 | P-TO220-5-3   | adjustable voltage, $I_{out} = 400$ mA, Inhibit, tube                                                |
| TLE 4284DV      | SP000014339 | P-TO252-3-11  | adjustable voltage, $I_{out} = 1$ A, short circuit protected, overtemperature protected, tape & reel |
| ▼ TLE 4284D V15 | SP000089571 | P-TO252-3-1   | 1.5 V, $I_{out} = 1$ A, short circuit protected, overtemperature protected, tape & reel              |
| ▼ TLE 4284D V18 | SP000063690 | P-TO252-3-1   | 1.8 V, $I_{out} = 1$ A, short circuit protected, overtemperature protected, tape & reel              |
| ▼ TLE 4284D V26 | SP000054076 | P-TO252-3-1   | 2.6 V, $I_{out} = 1$ A, short circuit protected, overtemperature protected, tape & reel              |
| TLE 4284D V33   | SP000014340 | P-TO252-3-1   | 3.3 V, $I_{out} = 1$ A, short circuit protected, overtemperature protected, tape & reel              |

#### 5 V Standard Regulators ( $\leq 200$ mA output current)

|                 |             |             |                                                                         |
|-----------------|-------------|-------------|-------------------------------------------------------------------------|
| TLE 4285G       | SP000011850 | SCT595      | 5 V, $I_{out} = 15$ mA, Power fail, tape & reel                         |
| TLE 4286G       | SP000011851 | SCT595      | 5 V, $I_{out} = 15$ mA, Inhibit, tape & reel                            |
| TLE 4295G V50   | SP000012500 | SCT595      | 5 V, $I_{out} = 30$ mA, Reset, Power fail, tape & reel                  |
| TLE 4296G V50   | SP000012766 | SCT595      | 5 V, $I_{out} = 30$ mA, Inhibit, tape & reel                            |
| TLE 4296-2G V50 | SP000014333 | SCT595      | 5 V, $I_{out} = 30$ mA, Inhibit, reduced quiescent current, tape & reel |
| TLE 4264G       | SP000011765 | SOT223      | 5 V, $I_{out} = 150$ mA, tape & reel                                    |
| TLE 4266G       | SP000011768 | SOT223      | 5 V, $I_{out} = 150$ mA, Inhibit, tape & reel                           |
| TLE 4269G       | SP000011784 | P-DSO-8-3   | 5 V, $I_{out} = 150$ mA, Reset, early warning, tape & reel              |
| TLE 4269GL      | SP000011789 | P-DSO-20-17 |                                                                         |
| TLE 4269GM      | SP000011790 | P-DSO-14-8  |                                                                         |
| TLE 4279G       | SP000011840 | P-DSO-8-3   | 5 V, $I_{out} = 150$ mA, Reset, early warning, tape & reel              |
| ▼ TLE 4279GM    | SP000011845 | P-DSO-14-8  |                                                                         |
| TLE 4278G       | SP000011838 | P-DSO-14-8  | 5 V, $I_{out} = 160$ mA, Reset, Watchdog, tape & reel                   |
| TLE 4262G       | SP000011760 | P-DSO-20-6  | 5 V, $I_{out} = 200$ mA, Reset, Inhibit, tape & reel                    |
| TLE 4262GM      | SP000012365 | P-DSO-14-8  |                                                                         |
| TLE 4263G       | SP000011762 | P-DSO-20-6  | 5 V, $I_{out} = 200$ mA, Reset, Inhibit, Watchdog, tape & reel          |
| TLE 4263GM      | SP000012367 | P-DSO-14-4  |                                                                         |
| TLE 4263GS      | SP000014278 | P-DSO-8-3   | 5 V, $I_{out} = 180$ mA, Reset, Watchdog, tape & reel                   |
| TLE 4268G       | SP000011777 | P-DSO-20-17 |                                                                         |
| TLE 4268GS      | SP000011781 | P-DSO-8-3   |                                                                         |

SMD = Surface Mounted Device

| Type | Ordering Code | Package | Description |
|------|---------------|---------|-------------|
|------|---------------|---------|-------------|

## Voltage Regulators

### Automotive Linear

#### 5 V Standard Regulators (> 200 mA output current)

|                 |             |               |                                                                                       |
|-----------------|-------------|---------------|---------------------------------------------------------------------------------------|
| TLE 4287G       | SP000011854 | P-DSO-14-8    | 5 V, $I_{out} = 250$ mA, Reset, Inhibit, tape & reel                                  |
| ▼ TLE 4267G     | SP000011774 | P-TO220-7-4   | 5 V, $I_{out} = 400$ mA, Reset, Inhibit, tape & reel                                  |
| TLE 4267GM      | SP000012506 | P-DSO-14-8    |                                                                                       |
| TLE 4267        | SP000012167 | P-TO220-7-3   | 5 V, $I_{out} = 400$ mA, Reset, Inhibit, tube                                         |
| TLE 4267S       | SP000011771 | P-TO220-7-230 |                                                                                       |
| TLE 4274 V50    | SP000011809 | P-TO220-3-1   | 5 V, $I_{out} = 400$ mA, tube                                                         |
| ▼ TLE 4274D V50 | SP000011801 | P-TO252-3-11  | 5 V, $I_{out} = 400$ mA, tape & reel                                                  |
| ▼ TLE 4274GV    | SP000089303 | P-TO263-3-1   |                                                                                       |
| TLE 4274G V50   | SP000011796 | P-TO263-3-1   |                                                                                       |
| TLE 4276D V50   | SP000012198 | P-TO252-5-1   | 5 V, $I_{out} = 400$ mA, Inhibit, tape & reel                                         |
| TLE 4276G V50   | SP000011821 | P-TO220-5-122 | 5 V, $I_{out} = 400$ mA, Inhibit, tube                                                |
| TLE 4276S V50   | SP000011829 | P-TO220-5-43  |                                                                                       |
| TLE 4275        | SP000011814 | P-TO220-5-11  | 5 V, $I_{out} = 450$ mA, Reset, tube                                                  |
| TLE 4275S       | SP000011815 | P-TO220-5-12  |                                                                                       |
| TLE 4275D       | SP000012151 | P-TO252-5-1   | 5 V, $I_{out} = 450$ mA, Reset, tape & reel                                           |
| TLE 4275G       | SP000011818 | P-TO263-5-1   |                                                                                       |
| TLE 4276 V50    | SP000011832 | P-TO220-5-3   | 5 V, $I_{out} = 400$ mA, Inhibit, tube                                                |
| TLE 4290D       | SP000012762 | P-TO252-5-1   | 5 V, $I_{out} = 450$ mA, Power Good, tape & reel                                      |
| TLE 4290G       | SP000012763 | P-TO263-5-1   |                                                                                       |
| TLE 4270        | SP000011792 | P-TO220-5-11  | 5 V, $I_{out} = 600$ mA, Reset, tube                                                  |
| TLE 4270S       | SP000011793 | P-TO220-5-12  |                                                                                       |
| TLE 4270D       | SP000012195 | P-TO252-5-1   | 5 V, $I_{out} = 600$ mA, Reset, tape & reel                                           |
| TLE 4270G       | SP000011794 | P-TO263-5-1   |                                                                                       |
| TLE 4271-2      | SP000013201 | P-TO220-7-11  | 5 V, $I_{out} = 600$ mA, Reset, Inhibit, Watchdog, tube                               |
| TLE 4271-2S     | SP000013202 | P-TO220-7-12  |                                                                                       |
| TLE 4271-2G     | SP000013203 | P-TO263-7-1   | 5 V, $I_{out} = 600$ mA, Reset, Inhibit, Watchdog, tape & reel                        |
| TLE 4284D V50   | SP000017633 | P-TO252-3-1   | 5 V, $I_{out} = 1$ A, short circuit protected, overtemperature protected, tape & reel |

#### 8.5 V and 10 V Standard Regulators

|                |             |               |                                                 |
|----------------|-------------|---------------|-------------------------------------------------|
| TLE 4266GS V10 | SP000012431 | SOT223        | 10 V, $I_{out} = 120$ mA, Inhibit, tape & reel  |
| TLE 4274G V10  | SP000011798 | P-TO263-3-1   | 10 V, $I_{out} = 400$ mA, tape & reel           |
| TLE 4274G V85  | SP000011797 | P-TO263-3-1   | 8.5 V, $I_{out} = 400$ mA, tape & reel          |
| TLE 4274 V10   | SP000011811 | P-TO220-3-1   | 10 V, $I_{out} = 400$ mA, Inhibit, tube         |
| TLE 4274 V85   | SP000011810 | P-TO220-3-1   | 8.5 V, $I_{out} = 400$ mA, tube                 |
| TLE 4276G V10  | SP000011823 | P-TO220-5-122 | 10 V, $I_{out} = 400$ mA, Inhibit, tape & reel  |
| TLE 4276 V85   | SP000011833 | P-TO220-5-3   | 8.5 V, $I_{out} = 400$ mA, Inhibit, tube        |
| TLE 4276S V85  | SP000011830 | P-TO220-5-43  |                                                 |
| TLE 4276 V10   | SP000011834 | P-TO220-5-3   | 10 V, $I_{out} = 400$ mA, Inhibit, tube         |
| TLE 4276G V85  | SP000011822 | P-TO220-5-122 | 8.5 V, $I_{out} = 400$ mA, Inhibit, tape & reel |

#### 2.6 V, 3.0 V and 3.3 V Ultra Low Quiescent Regulators

|                  |             |            |                                                                            |
|------------------|-------------|------------|----------------------------------------------------------------------------|
| TLE 4266-2GS V33 | SP000013992 | SOT223     | 3.3 V, $I_{out} = 150$ mA, Inhibit, reduced quiescent current, tape & reel |
| TLE 4299GM V33   | SP000056991 | P-DSO-14-8 | 3.3 V, $I_{out} = 150$ mA, Inhibit, early warning, tape & reel             |
| ▼ TLE 4299G V33  | SP000056992 | P-DSO-8-3  |                                                                            |
| ▼ TLE 7273 V26   | SP000067153 | P-DSO-14-4 | 2.6 V, $I_{out} = 200$ mA, Reset, Inhibit, Watchdog, tape & reel           |
| ▼ TLE 7273 V33   | SP000067154 | P-DSO-14-4 | 3.3 V, $I_{out} = 200$ mA, Reset, Inhibit, Watchdog, tape & reel           |

SMD = Surface Mounted Device

| Type | Ordering Code | Package | Description |
|------|---------------|---------|-------------|
|------|---------------|---------|-------------|

## Voltage Regulators

### Automotive Linear

#### 5 V Ultra Low Quiescent Current Regulators

|                |             |             |                                                                     |
|----------------|-------------|-------------|---------------------------------------------------------------------|
| ▼ TLE 4264-2G  | SP000013989 | SOT223      | 5 V, $I_{out} = 150$ mA, tape & reel                                |
| TLE 4266-2G    | SP000013991 | SOT223      | 5 V, $I_{out} = 150$ mA, Inhibit, tape & reel                       |
| TLE 4299G      | SP000012770 | P-DSO-8-3   | 5 V, $I_{out} = 150$ mA, Reset, early warning, tape & reel          |
| TLE 4299GM     | SP000013145 | P-DSO-14-8  | 5 V, $I_{out} = 150$ mA, Reset, Inhibit, early warning, tape & reel |
| TLE 7270D      | SP000014700 | P-TO252-5-1 | 5 V, $I_{out} = 300$ mA, Reset, tape & reel                         |
| TLE 7270G      | SP000055309 | P-TO263-5-1 |                                                                     |
| TLE 7272D      | SP000055847 | P-TO252-5-1 | 5 V, $I_{out} = 300$ mA, Reset, Inhibit, tape & reel                |
| TLE 7272G      | SP000055848 | P-TO263-5-1 |                                                                     |
| ▼ TLE 7273 V50 | SP000067155 | P-DSO-14-4  | 5 V, $I_{out} = 200$ mA, Reset, Inhibit, Watchdog, tape & reel      |
| TLE 7274D      | SP000055849 | P-TO252-5-1 | 5 V, $I_{out} = 300$ mA, tape & reel                                |
| TLE 7274G      | SP000055850 | P-TO263-3-1 |                                                                     |
| TLE 7276D      | SP000055851 | P-TO252-5-1 | 5 V, $I_{out} = 300$ mA, Inhibit, tape & reel                       |
| TLE 7276G      | SP000055852 | P-TO263-5-1 |                                                                     |

#### Multiple Regulators

|               |             |             |                                                                                  |
|---------------|-------------|-------------|----------------------------------------------------------------------------------|
| TLE 4470G     | SP000011856 | P-DSO-20-6  | 5 V + 5 V, $I_{out} = 180$ mA/350 mA, Reset, early warning, tape & reel          |
| TLE 4470GS    | SP000011861 | P-DSO-14-4  | 5 V + adj. voltage, $I_{out} = 180$ mA/350 mA, Reset, early warning, tape & reel |
| TLE 4471G     | SP000013144 | P-DSO-20-12 | 5 V + 5 V + 5 V, 2 tracked outputs 100/50 mA, Reset, Watchdog tape & reel        |
| TLE 4473G V52 | SP000014119 | P-DSO-12-6  | 5 V + 2.6 V, $I_{out} = 180$ mA/300 mA, Watchdog, tape & reel                    |
| TLE 4473G V53 | SP000014118 | P-DSO-12-6  | 5 V + 3.3 V, $I_{out} = 180$ mA/300 mA, Watchdog, tape & reel                    |
| TLE 4473G V55 | SP000014117 | P-DSO-12-4  | 5 V + 5 V, $I_{out} = 190$ mA/300 mA, Reset, Inhibit, Watchdog, tape & reel      |
| TLE 4476D     | SP000012771 | P-TO252-5-1 | 5 V + 3.3 V, $I_{out} = 350$ mA/430 mA, tape & reel                              |
| TLE 7469GV52  | SP000014191 | P-DSO-12-4  | 5 V + 2.6 V, $I_{out} = 300$ mA/320 mA, Inhibit, Reset, Watchdog, tape & reel    |
| TLE 7469GV53  | SP000017740 | P-DSO-12-4  | 5 V + 3.3 V, $I_{out} = 300$ mA/320 mA, Inhibit, Reset, Watchdog, tape & reel    |

#### Voltage Tracker

|           |             |             |                                                        |
|-----------|-------------|-------------|--------------------------------------------------------|
| TLE 4250G | SP000012163 | SCT595      | adj. voltage, $I_{out} = 50$ mA, Inhibit, tape & reel  |
| TLE 4252D | SP000014642 | P-TO252-5-1 | adj. voltage, $I_{out} = 250$ mA, Inhibit, tape & reel |
| TLE 4251D | SP000013042 | P-TO252-5-1 | adj. voltage, $I_{out} = 400$ mA, Inhibit, tape & reel |
| TLE 4251G | SP000013761 | P-TO263-5-1 |                                                        |

#### LED Driver ICs

|            |             |             |                                                                              |
|------------|-------------|-------------|------------------------------------------------------------------------------|
| TLE 4240G  | SP000013618 | SCT595      | Lowdrop LED driver, 60 mA current output, tape & reel                        |
| TLE 4241GM | SP000014624 | P-DSO-8-9   | Lowdrop LED driver, with adjustable current output, tape & reel              |
| TLE 4242G  | SP000014456 | P-TO263-7-1 | Lowdrop LED driver, with adjustable current output up to 500 mA, tape & reel |

SMD = Surface Mounted Device

# Power Semiconductors

| Type | Ordering Code | Package | Description |
|------|---------------|---------|-------------|
|------|---------------|---------|-------------|

## Voltage Regulators

### Industrial Linear

|                  |             |             |                                                                             |
|------------------|-------------|-------------|-----------------------------------------------------------------------------|
| TLE 4305G        | SP000011855 | P-DSO-8-1   | High precision bipolar regulator, breakdown voltage up to 45 V, tape & reel |
| TLE 4307D V33    | SP000012829 | P-TO252-5-1 | Power charge pump and low drop voltage regulator, 3.3 V, tape & reel        |
| TLE 4307D V38    | SP000012828 | P-TO252-5-1 | Power charge pump and low drop voltage regulator, 3.8 V, tape & reel        |
| TLE 4484G        | SP000012507 | SOT223      | 5 / 15 V, Dual regulator, tape & reel                                       |
| ▼ IFX 1117GS     | SP000014584 | SOT223      | 5 V adjustable, $I_{out} = 1.0$ A, short circuit protection, tape & reel    |
| ▼ IFX 1117GS V33 | SP000014585 | SOT223      | 3.3 V, $I_{out} = 1.0$ A, short circuit protection, tape & reel             |

### DC/DC Converter

|                |             |             |                                                                                       |
|----------------|-------------|-------------|---------------------------------------------------------------------------------------|
| TLE 6361G      | SP000013297 | P-DSO-36-12 | 32-bit $\mu$ C power supply, Buck converter, Reset, Watchdog, tape & reel             |
| TLE 6363G      | SP000014251 | P-DSO-14-2  | Multifunctional voltage regulator and watchdog, tape & reel                           |
| TLE 6365G      | SP000013455 | P-DSO-8-3   | Step-down voltage regulator with reset, input voltage range 8 V to 40 V, tape & reel  |
| ▼ TLE 6368G1   | SP000015046 | P-DSO-36-12 | 32-bit $\mu$ C power supply, Buck converter, Reset, Watchdog, tape & reel             |
| TLE 6368R      | SP000014666 | P-DSO-36-12 |                                                                                       |
| TLE 6389GV     | SP000013787 | P-DSO-14-2  | Buck converter with external P-channel MOSFET, adjustable output voltage, tape & reel |
| TLE 6389G 50   | SP000015002 | P-DSO-14-2  | Buck converter with external P-channel MOSFET, tape & reel                            |
| TLE 6389G 50-1 | SP000015001 | P-DSO-14-2  | Buck converter with external P-channel MOSFET, 5 V, tape & reel                       |

SMD = Surface Mounted Device

| Type | Ordering Code | Package | Description |
|------|---------------|---------|-------------|
|------|---------------|---------|-------------|

## Transceivers

### System Basis Chips

|             |             |            |                                                                                                                                            |
|-------------|-------------|------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| TLE 6262G   | SP000013837 | P-DSO-28-6 | System base chip (SBC) CAN-LDO with relay drivers, tape & reel                                                                             |
| ▼ TLE 6263G | SP000075505 | P-DSO-28-6 | System base chip (SBC) with fault tolerant CAN-transceiver, 5-V voltage regulator, wake-up inputs, Reset generator, 8-bit SPI, tape & reel |
| TLE 6285G   | SP000065800 | P-DSO-16-4 | Single wire LIN-transceiver + system regulator + reset generator adjustable reset threshold, tape & reel                                   |
| TLE 6286G   | SP000065801 | P-DSO-16-4 | Single wire LIN-transceiver + system regulator, tape & reel                                                                                |

### Stand-alone Transceivers

|               |             |             |                                                                                                                      |
|---------------|-------------|-------------|----------------------------------------------------------------------------------------------------------------------|
| TLE 6250G     | SP000012832 | P-DSO-8-3   | High speed CAN-transceiver according to ISO 11898, tape & reel                                                       |
| ▼ TLE 6250PG  | SP000055308 | PG-DSO-8-3  |                                                                                                                      |
| TLE 6250G V33 | SP000013959 | P-DSO-8-3   |                                                                                                                      |
| ▼ TLE 6251DS  | SP000069399 | P-DSO-8-3   | High speed CAN-transceiver with bus wake-up, compatible to 3.3 V and 5 V logic input levels, tape & reel             |
| TLE 6251G     | SP000082094 | P-DSO-14-13 | High speed CAN-transceiver with bus wake-up and bus failure detection, tape & reel                                   |
| TLE 6254-3G   | SP000014156 | P-DSO-14-13 | Low speed fault tolerant CAN-transceiver according ISO 11898-3, tape & reel                                          |
| TLE 6255G     | SP000012141 | P-DSO-14-2  | Single wire CAN-transceiver, tape & reel                                                                             |
| TLE 6258-2G   | SP000014969 | P-DSO-8-3   | Single wire LIN-transceiver, low speed, tape & reel                                                                  |
| ▼ TLE 6259-2G | SP000014214 | P-DSO-8-3   | Single wire LIN-transceiver, suitable for LIN protocol, tape & reel                                                  |
| TLE 6266G     | SP000013996 | P-DSO-28-6  | Fault tolerant differential CAN-transceiver with watchdog (KORMORAN II), tape & reel                                 |
| ▼ TLE 7259G   | SP000017461 | P-DSO-8-3   | Enhanced LIN-transceiver with sleep mode/inhibit output, compatible to 3.3 V and 5 V logic input levels, tape & reel |

SMD = Surface Mounted Device

## Power Semiconductors

| Type | Ordering Code | Package | Description |
|------|---------------|---------|-------------|
|------|---------------|---------|-------------|

### Specific Automotive ICs

#### Application Specific Standard Products for Restraint Systems

|             |             |               |                                                                             |
|-------------|-------------|---------------|-----------------------------------------------------------------------------|
| ▼ TLE 6710Q | SP000013708 | P-MQFP-64-1   | Power supply communication four squib driver airbag system ICs, tape & reel |
| TLE 6711G   | SP000012787 | P-DSO-14-3    | Airbag power supply ICs, tape & reel                                        |
| ▼ TLE 6712G | SP000013710 | P-DSO-24-10   | Two squib airbag firing ICs, tape & reel                                    |
| ▼ TLE 6714G | SP000013709 | P-DSO-28-1    | Quad squib airbag firing ICs, tape & reel                                   |
| ▼ TLE 7719T | SP000014172 | P-TSSOP-28-1  | Airbag satellite receiver ICs (4-channel), tape & reel                      |
| ▼ TLE 7719T | SP000228426 | PG-TSSOP-28-1 | Airbag satellite receiver ICs (4-channel), tape & reel                      |

#### Application Specific Standard Products for Vehicle Stability - Braking (ABS/ESP)

|                |             |             |                                                                                     |
|----------------|-------------|-------------|-------------------------------------------------------------------------------------|
| TLE 6210G B2   | SP000013645 | P-DSO-20-12 | ABS/ASR system ICs, 5 V, 800 mA linear regulator, lamp output, tape & reel          |
| ▼ TLE 6211G-C1 | SP000013647 | P-DSO-20-12 | ABS/ASR system ICs, 5 V, 800 mA linear regulator, inverted lamp output, tape & reel |

3

SMD = Surface Mounted Device

## Power Semiconductors

| Type | Ordering Code | Package | Description |
|------|---------------|---------|-------------|
|------|---------------|---------|-------------|

### DC/DC Control ICs

#### CoreControl™

|              |             |               |                                                                                                                      |
|--------------|-------------|---------------|----------------------------------------------------------------------------------------------------------------------|
| TDA 21101G   | SP000013698 | P-DSO-8-3     | High speed single driver with bootstrapping for dual power MOSFETs, tape & reel                                      |
| ▼ TDA 21101G | SP000200320 | PG-DSO-8-3    | High speed single driver with bootstrapping for dual power MOSFETs, tape & reel                                      |
| TDA 21107    | SP000015138 | P-DSO-8-3     | High speed single driver for dual power MOSFETs, power-on OVP protection, tape & reel                                |
| TDA 21106    | SP000063695 | P-DSO-8-3     | High speed single driver with bootstrapping for dual power MOSFETs, tape & reel                                      |
| TDA 21102    | SP000014699 | P-DSO-14-3    | High speed driver with bootstrapping for dual power MOSFETs (dual Gate Driver), tape & reel                          |
| TDA 21103    | SP000015139 | P-DSO-14-3    | High speed driver with bootstrapping for dual power MOSFETs (dual Gate Driver), power-on OVP protection, tape & reel |
| TDA 21201-B7 | SP000013685 | P-TO263-7-2   | Integrated switch (MOSFET driver and MOSFETs), tape & reel                                                           |
| TDA 21201-P7 | SP000014081 | P-TO220-7-3   | Integrated switch (MOSFET driver and MOSFETs), tube                                                                  |
| TDA 21201-S7 | SP000014082 | P-TO220-7-230 |                                                                                                                      |
| TDA 21301    | SP000013699 | P-TSSOP-28    | Multi-phase PWM controller for CPU power supply, tape & reel                                                         |

### Smart Lighting Control ICs

|              |             |             |                                                                    |
|--------------|-------------|-------------|--------------------------------------------------------------------|
| ▼ ICB 1FL01G | SP000075625 | PG-DSO-18-1 | Smart ballast control IC for fluorescent lamp, tape & reel         |
| ▼ ICB 1FL02G | SP000204703 | PG-DSO-18-1 | PFC, ballast control and half-bridge driver in one IC, tape & reel |

SMD = Surface Mounted Device

| Type                            | Ordering Code | Package     | Description                                                                                                                                                                                                   |
|---------------------------------|---------------|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Power Control ICs</b>        |               |             |                                                                                                                                                                                                               |
| <b>PWM Control ICs for SMPS</b> |               |             |                                                                                                                                                                                                               |
| IDA 4916GG                      | SP000011736   | P-DSO-24-1  | Off-line PWM (Pulse Width Modulation) controller with very stable oscillator for high performance converters, tape & reel                                                                                     |
| ▼ TDA 4916GG                    | SP000087991   | P-DSO-24-1  |                                                                                                                                                                                                               |
| ICE 2AS01                       | SP000013764   | P-DIP-8-4   | Off-line PWM (Pulse Width Modulation) control ICs for SMPS (100 kHz fixed), tube                                                                                                                              |
| ICE 2AS01G                      | SP000013765   | P-DSO-8-3   | Off-line PWM (Pulse Width Modulation) control ICs for SMPS (100 kHz fixed), tape & reel                                                                                                                       |
| ICE 3AS02                       | SP000015084   | PG-DIP-8-6  | Off-line PWM (Pulse Width Modulation) control ICs for SMPS (100 kHz fixed) with start up cell, tube                                                                                                           |
| ▼ ICE 3AS02G                    | SP000101150   | PG-DSO-8-3  | Off-line PWM (Pulse Width Modulation) control ICs for SMPS (100 kHz fixed) with start up cell, tape & reel                                                                                                    |
| ICE 2BS01                       | SP000013766   | P-DIP-8-4   | Off-line PWM (Pulse Width Modulation) control ICs for SMPS (67 kHz fixed), tube                                                                                                                               |
| ICE 2BS01G                      | SP000013767   | P-DSO-8-3   | Off-line PWM (Pulse Width Modulation) control ICs for SMPS (67 kHz fixed), tape & reel                                                                                                                        |
| ICE 3BS02                       | SP000014966   | PG-DIP-8-6  | Off-line PWM (Pulse Width Modulation) control ICs for SMPS (67 kHz fixed) with start up cell, tube                                                                                                            |
| ▼ ICE 3BS02G                    | SP000101151   | PG-DSO-8-8  | Off-line PWM (Pulse Width Modulation) control ICs for SMPS (67 kHz fixed) with start up cell, tape & reel                                                                                                     |
| ICE 3BS02L                      | SP000015117   | P-DIP-8-6   | Off-line PWM (Pulse Width Modulation) control ICs for SMPS (67 kHz fixed) with start up cell, latch mode, tube                                                                                                |
| ICE 3DS01L                      | SP000014265   | P-DIP-8-6   | Off-line PWM (Pulse Width Modulation) control ICs for SMPS (110 kHz fixed) with start up cell, latch mode, tube                                                                                               |
| ICE 3DS01LG                     | SP000014264   | P-DSO-8-8   | Off-line PWM (Pulse Width Modulation) control ICs for SMPS (110 kHz fixed) with start up cell, latch mode, tape & reel                                                                                        |
| ICE 1QS01                       | SP000014266   | P-DIP-8-4   | Controller for quasi-resonant SMPS supporting low power standby and power factor correction, tube                                                                                                             |
| ICE 1QS01G                      | SP000014505   | P-DSO-8-3   | Controller for quasi-resonant SMPS supporting low power standby and power factor correction, tape & reel                                                                                                      |
| ▼ ICE 1QS01G                    | SP000081003   | PG-DSO-8-3  |                                                                                                                                                                                                               |
| TDA 16846                       | SP000011731   | P-DIP-14-3  | Off-line PWM-controller for quasi-resonant, synchronized or fixed frequency applications, tube                                                                                                                |
| ▼ TDA 16846 G GEG               | SP000012854   | P-DSO-14-3  | Off-line PWM-controller for quasi-resonant, synchronized or fixed frequency applications, tape & reel                                                                                                         |
| ▼ TDA 16846 G GEG               | SP000081009   | PGDSO-14-3  |                                                                                                                                                                                                               |
| TDA 16846-2                     | SP000013854   | P-DIP-14-3  | Off-line PWM-controller for quasi-resonant, synchronized or fixed frequency applications, suited for TV-, VCR-sets, SAT receivers and other sets for consumer electronics, tube                               |
| ▼ TDA 16846-2G GEG              | SP000081008   | PG-DSO-14-3 | Off-line PWM-controller for quasi-resonant, synchronized or fixed frequency applications, suited for TV-, VCR-sets, SAT receivers and other sets for consumer electronics, tape & reel                        |
| ▼ TDA 16847                     | SP000011732   | P-DIP-14-3  | Off-line PWM-controller for quasi-resonant, synchronized or fixed frequency applications, temporary high power circuit, tape & reel                                                                           |
| ▼ TDA 16847-2                   | SP000013856   | P-DIP-14-3  | Off-line PWM-controller for quasi-resonant, synchronized or fixed frequency applications, suited for TV-, VCR-sets, SAT receivers and other sets for consumer electronics, temporary high power circuit, tube |
| TDA 16888                       | SP000011721   | P-DIP-20-5  | Power combi (PWM + PFC) control IC for SMPS, tube                                                                                                                                                             |
| TDA 16888 G                     | SP000011722   | P-DSO-20-1  |                                                                                                                                                                                                               |
| ▼ TDA 16888 G                   | SP000081318   | PG-DSO-20-1 |                                                                                                                                                                                                               |
| ▼ TDA 16888 G GEG               | SP000011723   | P-DSO-20-1  | Power combi (PWM + PFC) control IC for SMPS, tape & reel                                                                                                                                                      |
| ▼ TDA 16888 G GEG               | SP000087990   | PG-DSO-20-1 |                                                                                                                                                                                                               |
| TDA 4605-2                      | SP000011728   | P-DIP-8-1   | Off-line quasi-resonant PWM controller, tube                                                                                                                                                                  |
| TDA 4605-3                      | SP000011729   | P-DIP-8-1   | Off-line quasi-resonant PWM controller with enhanced gate driver, tube                                                                                                                                        |

SMD = Surface Mounted Device

# Power Semiconductors

| Type                            | Ordering Code | Package    | Description                                                                                                                          |
|---------------------------------|---------------|------------|--------------------------------------------------------------------------------------------------------------------------------------|
| <b>Power Control ICs</b>        |               |            |                                                                                                                                      |
| <b>Power Factor Controllers</b> |               |            |                                                                                                                                      |
| TDA 4862                        | SP000011734   | P-DIP-8-1  | Power factor correction control ICs for SMPS, tube                                                                                   |
| TDA 4862G GEG                   | SP000011735   | P-DSO-8-1  | Power factor correction control ICs for SMPS, tape & reel                                                                            |
| ▼ TDA 4862G GEG                 | SP000080989   | P-DSO-8-1  |                                                                                                                                      |
| TDA 4863                        | SP000013654   | P-DIP-8-4  | Power factor controller IC for high power factor and low THD (Boost controller), tube                                                |
| TDA 4863G                       | SP000013655   | P-DSO-8-3  | Power factor controller IC for high power factor and low THD (Boost controller), tape & reel                                         |
| ▼ TDA 4863G                     | SP000080991   | PG-DSO-8-3 |                                                                                                                                      |
| TDA 4863-2                      | SP000014792   | P-DIP-8-4  | Power factor controller IC for high power factor and low THD (Boost controller), a big MOS transistor can be driven, tube            |
| TDA 4863-2G                     | SP000014793   | P-DSO-8-3  | Power factor controller IC for high power factor and low THD (Boost controller), a big MOS transistor can be driven, tape & reel     |
| ▼ TDA 4863-2G                   | SP000081016   | PG-DSO-8-3 |                                                                                                                                      |
| ICE 1PCS01                      | SP000014681   | P-DIP-8-4  | Power Factor Controller (PFC) in Continuous Conduction Mode (CCM), tube                                                              |
| ICE 1PCS01                      | SP000014680   | P-DSO-8-3  | Power Factor Controller (PFC) in Continuous Conduction Mode (CCM), tape & reel                                                       |
| ▼ ICE 1PCS01G                   | SP000081001   | PG-DSO-8-3 |                                                                                                                                      |
| ▼ ICE 1PCS02                    | SP000056162   | PG-DIP-8-4 | Standalone Power Factor Correction (PFC) controller in Continuous Conduction Mode (CCM) with input brown-out protection, tube        |
| ▼ ICE 1PCS02G                   | SP000056164   | PG-DSO-8-3 | Standalone Power Factor Correction (PFC) controller in Continuous Conduction Mode (CCM) with input brown-out protection, tape & reel |
| TDA 21801                       | SP000015019   | PG-DSO-8-3 | Fan speed controller IC for SMPS, tape & reel                                                                                        |

SMD = Surface Mounted Device

| Type | Ordering Code | Package | Description |
|------|---------------|---------|-------------|
|------|---------------|---------|-------------|

## Power Control ICs

### CoolSET™ F1 Family

|           |             |           |                                                                                                |
|-----------|-------------|-----------|------------------------------------------------------------------------------------------------|
| TDA 16822 | SP000012897 | P-DIP-8-6 | Integrated PWM control IC + CoolMOS™ power MOSFET in multi-chip technology (650 V, 20 W), tube |
|-----------|-------------|-----------|------------------------------------------------------------------------------------------------|

| Type | Ordering Code | Package | $V_{break}$<br>V | $P_{out}$<br>W | $I_{peak}$<br>A | $f_{op}$<br>kHz |
|------|---------------|---------|------------------|----------------|-----------------|-----------------|
|------|---------------|---------|------------------|----------------|-----------------|-----------------|

### Off-Line SMPS Current Mode Controller with Integrated CoolMOS™ Power MOSFET CoolSET™ F2 Family

|               |             |              |     |     |     |     |
|---------------|-------------|--------------|-----|-----|-----|-----|
| ICE 2A0565    | SP000014233 | P-DIP-8-6    | 650 | 13  | 0.5 | 100 |
| ICE 2A0565G   | SP000015061 | P-DSO-16/12  | 650 | 13  | 0.5 | 100 |
| ICE 2A0565Z   | SP000014235 | P-DIP-7-1    | 650 | 12  | 0.5 | 100 |
| ICE 2A165     | SP000013769 | P-DIP-8-6    | 650 | 18  | 1   | 100 |
| ICE 2A180Z    | SP000014236 | P-DIP-7-1    | 800 | 18  | 1   | 100 |
| ICE 2A265     | SP000013503 | P-DIP-8-6    | 650 | 32  | 2   | 100 |
| ICE 2A280Z    | SP000014237 | P-DIP-7-1    | 800 | 31  | 2   | 100 |
| ICE 2A365     | SP000013504 | P-DIP-8-6    | 650 | 45  | 3   | 100 |
| ▼ ICE 2A380P2 | SP000089417 | P-TO220-6-47 | 800 | 62  | 3   | 100 |
| ICE 2A765I    | SP000014565 | P-TO220-6-46 | 650 | 130 | 7   | 100 |
| ICE 2A765P    | SP000013794 | P-TO220-6-47 | 650 | 130 | 7   | 100 |
| ICE 2A765P2   | SP000014566 | P-TO220-6-47 | 650 | 130 | 7   | 100 |
| ICE 2B165     | SP000013997 | P-DIP-8-6    | 650 | 18  | 1   | 67  |
| ICE 2B265     | SP000013998 | P-DIP-8-6    | 650 | 32  | 2   | 67  |
| ICE 2B365     | SP000013999 | P-DIP-8-6    | 650 | 45  | 3   | 67  |
| ICE 2B0565    | SP000014234 | P-DIP-8-6    | 650 | 45  | 0.5 | 67  |
| ICE 2B765I    | SP000014702 | P-TO220-6-46 | 650 | 130 | 7   | 67  |
| ICE 2B765P    | SP000013768 | P-TO220-6-47 | 650 | 130 | 7   | 67  |
| ICE 2B765P2   | SP000014701 | P-TO220-6-47 | 650 | 130 | 7   | 67  |

### Off-Line SMPS Current Mode Controller with Integrated CoolMOS™ Power MOSFET CoolSET™ F3 Family

|             |             |              |     |    |     |     |
|-------------|-------------|--------------|-----|----|-----|-----|
| ICE 3A0365  | SP000015072 | PG-DIP-8-6   | 650 | 10 | 0.3 | 100 |
| ICE 3A0565  | SP000015073 | P-DIP-8-6    | 650 | 12 | 0.5 | 100 |
| ICE 3A0565Z | SP000017044 | P-DIP-7-1    | 650 | 12 | 0.5 | 100 |
| ICE 3A1065  | SP000015074 | P-DIP-8-6    | 650 | 16 | 1.0 | 100 |
| ICE 3A1565  | SP000015083 | P-DIP-8-6    | 650 | 20 | 1.5 | 100 |
| ICE 3A2065  | SP000015082 | PG-DIP-8-6   | 650 | 28 | 2.0 | 100 |
| ICE 3A2065I | SP000016985 | P-TO220-6-46 | 650 | 28 | 2.0 | 100 |
| ICE 3A2065P | SP000016984 | P-TO220-6-47 | 650 | 28 | 2.0 | 100 |
| ICE 3A2065Z | SP000017045 | P-DIP-7-1    | 650 | 28 | 2.0 | 100 |
| ICE 3A2565  | SP000015075 | PG-DIP-8-6   | 650 | 33 | 2.5 | 100 |

SMD = Surface Mounted Device

# Power Semiconductors

| Type | Ordering Code | Package | $V_{break}$ | $P_{out}$ | $I_{peak}$ | $f_{op}$ |
|------|---------------|---------|-------------|-----------|------------|----------|
|      |               |         | V           | W         | A          | kHz      |

## Power Control ICs

### Off-Line SMPS Current Mode Controller with Integrated CoolMOS™ Power MOSFET CoolSET™ F3 Family

(cont'd)

|             |             |              |     |     |     |     |
|-------------|-------------|--------------|-----|-----|-----|-----|
| ICE 3A0365I | SP000016983 | P-TO220-6-46 | 650 | 62  | 0.3 | 100 |
| ICE 3A0365P | SP000016982 | P-TO220-6-47 | 650 | 62  | 0.3 | 100 |
| ICE 3A3565I | SP000016981 | P-TO220-6-46 | 650 | 83  | 3.5 | 100 |
| ICE 3A3565P | SP000016980 | P-TO220-6-47 | 650 | 83  | 3.5 | 100 |
| ICE 3A5065I | SP000016979 | P-TO220-6-46 | 650 | 105 | 5.0 | 100 |
| ICE 3A5065P | SP000016978 | P-TO220-6-47 | 650 | 105 | 5.0 | 100 |
| ICE 3A5565I | SP000016977 | P-TO220-6-46 | 650 | 120 | 5.5 | 100 |
| ICE 3A5565P | SP000016976 | P-TO220-6-47 | 650 | 120 | 5.5 | 100 |
| ICE 3B0365  | SP000014968 | P-DIP-8-6    | 650 | 10  | 0.3 | 67  |
| ICE 3B0565  | SP000014967 | P-DIP-8-6    | 650 | 12  | 0.5 | 67  |
| ICE 3B1065  | SP000015076 | P-DIP-8-6    | 650 | 16  | 1.0 | 67  |
| ICE 3B1565  | SP000015081 | P-DIP-8-6    | 650 | 20  | 1.5 | 67  |
| ICE 3B2065  | SP000015080 | P-DIP-8-6    | 650 | 28  | 2.0 | 67  |
| ICE 3B2065I | SP000016808 | P-TO220-6-46 | 650 | 50  | 2.0 | 67  |
| ICE 3B2065P | SP000016809 | P-TO220-6-47 | 650 | 50  | 2.0 | 67  |
| ICE 3B2565  | SP000015077 | P-DIP-8-6    | 650 | 33  | 2.5 | 67  |
| ICE 3B3065I | SP000016810 | P-TO220-6-46 | 650 | 62  | 3.0 | 67  |
| ICE 3B3065P | SP000016811 | P-TO220-6-47 | 650 | 62  | 3.0 | 67  |
| ICE 3B3565I | SP000016812 | P-TO220-6-46 | 650 | 83  | 3.5 | 67  |
| ICE 3B3565P | SP000016813 | P-TO220-6-47 | 650 | 83  | 3.5 | 67  |
| ICE 3B5065I | SP000016814 | P-TO220-6-46 | 650 | 105 | 5.0 | 67  |
| ICE 3B5065P | SP000016815 | P-TO220-6-47 | 650 | 105 | 5.0 | 67  |
| ICE 3B5565I | SP000016816 | P-TO220-6-46 | 650 | 120 | 5.0 | 67  |
| ICE 3B5565P | SP000016817 | P-TO220-6-47 | 650 | 120 | 5.0 | 67  |

### Off-Line SMPS Current Mode Controller with Integrated CoolMOS™ Power MOSFET CoolSET™ F3 Family (latched-off mode)

|               |             |           |     |    |     |     |
|---------------|-------------|-----------|-----|----|-----|-----|
| ▼ ICE 3A1065L | SP000098668 | P-DIP-8-6 | 650 | 16 | 1.0 | 100 |
| ▼ ICE 3A1565L | SP000098669 | P-DIP-8-6 | 650 | 20 | 1.5 | 100 |
| ▼ ICE 3B0365L | SP000016614 | P-DIP-8-6 | 650 | 10 | 0.3 | 67  |

### Off-Line SMPS Current Mode Controller with Integrated CoolMOS™ Power MOSFET CoolSET™ F3 Family (Jitter mode)

|                |             |             |     |    |     |    |
|----------------|-------------|-------------|-----|----|-----|----|
| ▼ ICE 3B1565J  | SP000098876 | PG-DIP-8-6  | 650 | 20 | 1.5 | 67 |
| ▼ ICE 3B0365J  | SP000064720 | PG-DIP-8-6  | 650 | 10 | 0.3 | 67 |
| ▼ ICE 3B0365JG | SP000078899 | P-DSO-16/12 | 650 | 10 | 0.3 | 67 |
| ▼ ICE 3B0565J  | SP000064685 | PG-DIP-8-6  | 650 | 12 | 0.5 | 67 |
| ▼ ICE 3B0565JG | SP000077217 | P-DSO-16/12 | 650 | 12 | 0.5 | 67 |

SMD = Surface Mounted Device

# Power Semiconductors

| Type | Ordering Code | Package | Description |
|------|---------------|---------|-------------|
|------|---------------|---------|-------------|

## Function and Industrial ICs

### Proximity Switches

|                 |             |             |                                                                                 |
|-----------------|-------------|-------------|---------------------------------------------------------------------------------|
| TCA 305G        | SP000011709 | P-DSO-14-1  | ICs for inductive proximity switches, tube                                      |
| ▼ TCA 305G      | SP000080985 | PG-DSO-14-1 |                                                                                 |
| ▼ TCA 305G GEG  | SP000011710 | P-DSO-14-1  | ICs for inductive proximity switches, tape & reel                               |
| ▼ TCA 305G GEG  | SP000080986 | PG-DSO-14-1 |                                                                                 |
| ▼ TCA 355G      | SP000080987 | PG-DSO-8-1  | ICs for inductive proximity switches, tube                                      |
| TCA 355G GEG    | SP000011712 | P-DSO-8-1   |                                                                                 |
| ▼ TCA 355G GEG  | SP000080988 | PG-DSO-8-1  | ICs for inductive proximity switches, tape & reel                               |
| TCA 505BG       | SP000011717 | P-DSO-16-1  |                                                                                 |
| ▼ TCA 505BG GEG | SP000011718 | P-DSO-16-1  | ICs for inductive proximity switches with short-circuit protection, tape & reel |
| ▼ TCA 505BG GEG | SP000105379 | PG-DSO-16-1 |                                                                                 |

### Power Driver ICs

|             |             |             |                                                                                                                        |
|-------------|-------------|-------------|------------------------------------------------------------------------------------------------------------------------|
| FZL 4146G   | SP000011402 | P-DSO-20-7  | Short-circuit signaling, four driver circuits for driving power transistors, turn-ON threshold setting from 1.5 to 7 V |
| ▼ FZL 4146G | SP000087989 | PG-DSO-20-7 |                                                                                                                        |

### Window Discriminator

|          |             |            |                            |
|----------|-------------|------------|----------------------------|
| TCA 965B | SP000011720 | P-DIP-14-1 | Window discriminator, tube |
|----------|-------------|------------|----------------------------|

### Phase Control

|         |             |            |                     |
|---------|-------------|------------|---------------------|
| TCA 785 | SP000011719 | P-DIP-16-1 | Phase control, tube |
|---------|-------------|------------|---------------------|

### Audible Signal ICs

|                 |             |            |                                                               |
|-----------------|-------------|------------|---------------------------------------------------------------|
| SAE 0800        | SP000011614 | P-DIP-8-1  | Programmable single-, dual- and triple-tone gong, tube        |
| SAE 0800G       | SP000011615 | P-DSO-8-1  |                                                               |
| ▼ SAE 0800G     | SP000080996 | PG-DSO-8-1 | Programmable single-, dual- and triple-tone gong, tape & reel |
| SAE 0800G GEG   | SP000011616 | P-DSO-8-1  |                                                               |
| ▼ SAE 0800G GEG | SP000080995 | PG-DSO-8-1 |                                                               |

SMD = Surface Mounted Device

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## Silicon Discrete Components

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|                         |     |
|-------------------------|-----|
| AF Semiconductors ..... | 103 |
| RF Semiconductors ..... | 121 |

## Silicon Discrete Components

| Type | Ordering Code | Package | Maximum Ratings |       | Characteristics<br>( $T_A = 25^\circ\text{C}$ ) |    |       |
|------|---------------|---------|-----------------|-------|-------------------------------------------------|----|-------|
|      |               |         | $V_R$           | $I_F$ | $V_F$                                           | at | $I_F$ |
|      |               |         | V               | mA    | V                                               |    | mA    |

### AF Diodes

#### Switching Diodes (8 mm Tape)

|                    |        |             |          |     |     |             |     |
|--------------------|--------|-------------|----------|-----|-----|-------------|-----|
| BAL 74             | 3k*    | SP000014992 | SOT23    | 50  | 250 | $\leq 1.0$  | 100 |
| BAL 99             | 3k*    | SP000010159 | SOT23    | 70  | 250 | $\leq 1.25$ | 150 |
| BAL 99             | 10k*   | SP000010161 | SOT23    | 70  | 250 | $\leq 1.25$ | 150 |
| BAR 74             | 3k*    | SP000010202 | SOT23    | 50  | 250 | $\leq 1.0$  | 100 |
| BAS 16             | 3k*    | SP000010203 | SOT23    | 75  | 250 | $\leq 1.25$ | 150 |
| BAS 16             | 10k*   | SP000010201 | SOT23    | 75  | 250 | $\leq 1.25$ | 150 |
| ▼ BAS 16           | 9x10k* | SP000223927 | SOT23    | 75  | 250 | $\leq 1.25$ | 150 |
| ▼ BAS 16           | 10x3k* | SP000223866 | SOT23    | 75  | 250 | $\leq 1.25$ | 150 |
| BAS 16-02L         | 15k*   | SP000013548 | TSLP-2-1 | 75  | 250 | $\leq 1.25$ | 150 |
| ■ BAS 16-02V       | 3k*    | SP000014911 | SC79     | 75  | 250 | $\leq 1.25$ | 150 |
| BAS 16 W           | 3k*    | SP000010214 | SOT323   | 75  | 250 | $\leq 1.25$ | 150 |
| BAS 16 W           | 10k*   | SP000010215 | SOT323   | 75  | 250 | $\leq 1.25$ | 150 |
| BAS 16-02W         | 3k*    | SP000010212 | SCD80    | 75  | 200 | $\leq 1.25$ | 150 |
| ■ BAS 16-03W       | 3k*    | SP000010213 | SOD323   | 75  | 250 | $\leq 1.25$ | 150 |
| BAS 16-07L4 (Dual) | 3k*    | SP000013972 | TSLP-4-4 | 75  | 250 | $\leq 1.25$ | 150 |
| BAS 21             | 3k*    | SP000010217 | SOT23    | 200 | 250 | $\leq 1.25$ | 200 |
| BAS 21             | 10k*   | SP000010219 | SOT23    | 200 | 250 | $\leq 1.25$ | 200 |
| BAS 21-03W         | 3k*    | SP000012522 | SOD323   | 200 | 250 | $\leq 1.25$ | 200 |
| ▼ BAS 21-03W       | 10k*   | SP000082470 | SOD323   | 200 | 250 | $\leq 1.25$ | 200 |
| BAS 116            | 3k*    | SP000010194 | SOT23    | 75  | 250 | $\leq 1.25$ | 150 |
| BGX 50 A (Bridge)  | 3k*    | SP000011092 | SOT143   | 50  | 140 | $\leq 2.6$  | 100 |
| ■ SMBD 914         | 3k*    | SP000010209 | SOT23    | 70  | 250 | $\leq 1.0$  | 100 |
| ▼ MMBD 914         | 3k*    | SP000010207 | SOT23    | 70  | 250 | $\leq 1.0$  | 100 |
| ▼ MMBD 914         | 10k*   | SP000010208 | SOT23    | 70  | 250 | $\leq 1.0$  | 100 |

#### Switching Diodes (12 mm Tape)

|                 |     |             |       |     |      |             |      |
|-----------------|-----|-------------|-------|-----|------|-------------|------|
| BAW 78 D        | 1k* | SP000010370 | SOT89 | 400 | 1000 | $\leq 2.00$ | 2000 |
| BAW 79 D (Dual) | 1k* | SP000014594 | SOT89 | 400 | 1000 | $\leq 2.00$ | 2000 |

\* Order unit

SMD = Surface Mounted Device

# Silicon Discrete Components

| Type | Ordering Code | Package | Maximum Ratings |       | Characteristics<br>( $T_A = 25^\circ\text{C}$ ) |    |       |
|------|---------------|---------|-----------------|-------|-------------------------------------------------|----|-------|
|      |               |         | $V_R$           | $I_F$ | $V_F$                                           | at | $I_F$ |
|      |               |         | V               | mA    | V                                               |    | mA    |

## AF Diodes

### Switching Diodes Array

|                  |        |             |        |     |     |        |     |
|------------------|--------|-------------|--------|-----|-----|--------|-----|
| BAS 16S (Triple) | 3k*    | SP000010200 | SOT363 | 80  | 200 | ≤ 1.25 | 150 |
| BAS 16U (Triple) | 3k*    | SP000012608 | SC74   | 80  | 200 | ≤ 1.25 | 150 |
| BAS 21U (Triple) | 3k*    | SP000012610 | SC74   | 200 | 250 | ≤ 1.25 | 200 |
| BAS 28 (Dual)    | 3k*    | SP000010225 | SOT143 | 80  | 200 | ≤ 1.25 | 150 |
| BAS 28W (Dual)   | 3k*    | SP000010230 | SOT343 | 80  | 200 | ≤ 1.25 | 150 |
| ■ BAV 70 (Dual)  | 3k*    | SP000014923 | SOT23  | 80  | 200 | ≤ 1.25 | 150 |
| BAV 70 (Dual)    | 10k*   | SP000014924 | SOT23  | 80  | 200 | ≤ 1.25 | 150 |
| ▼ BAV 70 (Dual)  | 9x10k* | SP000223928 | SOT23  | 80  | 200 | ≤ 1.25 | 150 |
| ▼ BAV 70 (Dual)  | 10x3k* | SP000223868 | SOT23  | 80  | 200 | ≤ 1.25 | 150 |
| BAV 70S (Quad)   | 3k*    | SP000010338 | SOT363 | 80  | 200 | ≤ 1.25 | 150 |
| ■ BAV 70T        | 3k*    | SP000013068 | SC75   | 80  | 200 | ≤ 1.25 | 150 |
| BAV 70U (Quad)   | 3k*    | SP000012931 | SC74   | 80  | 200 | ≤ 1.25 | 150 |
| BAV 70W (Dual)   | 3k*    | SP000014989 | SOT323 | 80  | 200 | ≤ 1.25 | 150 |
| BAV 70W (Dual)   | 10k*   | SP000014990 | SOT323 | 80  | 200 | ≤ 1.25 | 150 |
| ■ BAV 99 (Dual)  | 3k*    | SP000010350 | SOT23  | 80  | 200 | ≤ 1.25 | 150 |
| ▼ BAV 99 (Dual)  | 3k*    | SP000095919 | SOT23  | 80  | 200 | ≤ 1.25 | 150 |
| BAV 99 (Dual)    | 10k*   | SP000010342 | SOT23  | 80  | 200 | ≤ 1.25 | 150 |
| ▼ BAV 99 (Dual)  | 9x10k* | SP000223929 | SOT23  | 80  | 200 | ≤ 1.25 | 150 |
| ▼ BAV 99 (Dual)  | 10x3k* | SP000223871 | SOT23  | 80  | 200 | ≤ 1.25 | 150 |
| BAV 99S (Quad)   | 3k*    | SP000010356 | SOT363 | 80  | 200 | ≤ 1.25 | 150 |
| BAV 99S (Quad)   | 10k*   | SP000010357 | SOT363 | 80  | 200 | ≤ 1.25 | 150 |
| BAV 99T          | 3k*    | SP000012342 | SC75   | 80  | 200 | ≤ 1.25 | 150 |
| BAV 99T          | 10k*   | SP000012343 | SC75   | 80  | 200 | ≤ 1.25 | 150 |
| BAV 99U (Quad)   | 3k*    | SP000012613 | SC74   | 80  | 200 | ≤ 1.25 | 150 |
| BAV 99W (Dual)   | 3k*    | SP000010340 | SOT323 | 80  | 200 | ≤ 1.25 | 150 |
| BAV 99W (Dual)   | 10k*   | SP000010341 | SOT323 | 80  | 200 | ≤ 1.25 | 150 |
| ▼ BAV 99W (Dual) | 10x3k* | SP000056356 | SOT323 | 80  | 200 | ≤ 1.25 | 150 |
| BAV 170 (Dual)   | 3k*    | SP000010325 | SOT23  | 80  | 200 | ≤ 1.25 | 150 |
| BAV 170 (Dual)   | 10k*   | SP000010332 | SOT23  | 80  | 200 | ≤ 1.25 | 150 |
| ■ BAV 199 (Dual) | 3k*    | SP000010326 | SOT23  | 80  | 200 | ≤ 1.25 | 150 |
| ▼ BAV 199 (Dual) | 3k*    | SP000056360 | SOT23  | 80  | 200 | ≤ 1.25 | 150 |
| BAV 199 (Dual)   | 10k*   | SP000010330 | SOT23  | 80  | 200 | ≤ 1.25 | 150 |
| ■ BAW 56 (Dual)  | 3k*    | SP000014929 | SOT23  | 80  | 200 | ≤ 1.25 | 150 |
| BAW 56 (Dual)    | 10k*   | SP000014931 | SOT23  | 80  | 200 | ≤ 1.25 | 150 |
| ▼ BAW 56         | 9x10k* | SP000223931 | SOT23  | 80  | 200 | ≤ 1.25 | 150 |
| ▼ BAW 56         | 10x3k* | SP000223877 | SOT23  | 80  | 200 | ≤ 1.25 | 150 |
| BAW 56S (Quad)   | 3k*    | SP000014908 | SOT363 | 80  | 200 | ≤ 1.25 | 150 |
| ▼ BAW 56S (Quad) | 10x3k* | SP000056359 | SOT363 | 80  | 200 | ≤ 1.25 | 150 |
| ■ BAW 56T (Dual) | 3k*    | SP000014912 | SC75   | 80  | 200 | ≤ 1.25 | 150 |
| BAW 56U (Quad)   | 3k*    | SP000014993 | SC74   | 80  | 200 | ≤ 1.25 | 150 |
| BAW 56W (Dual)   | 3k*    | SP000014991 | SOT323 | 80  | 200 | ≤ 1.25 | 150 |

\* Order unit

SMD = Surface Mounted Device

# Silicon Discrete Components

| Type | Ordering Code | Package | Maximum Ratings |       | Characteristics<br>( $T_A = 25^\circ\text{C}$ ) |    |       |
|------|---------------|---------|-----------------|-------|-------------------------------------------------|----|-------|
|      |               |         | $V_R$           | $I_F$ | $V_F$                                           | at | $I_F$ |
|      |               |         | V               | mA    | V                                               |    | mA    |

## AF Diodes

### Switching Diodes Array (cont'd)

|                    |      |             |        |     |     |             |     |
|--------------------|------|-------------|--------|-----|-----|-------------|-----|
| BAW 101 (Dual)     | 3k*  | SP000010363 | SOT143 | 300 | 250 | $\leq 1.3$  | 100 |
| BAW 101 (Dual)     | 10k* | SP000010364 | SOT143 | 300 | 250 | $\leq 1.3$  | 100 |
| BAW 156 (Dual)     | 3k*  | SP000010327 | SOT23  | 80  | 20  | $\leq 1.25$ | 150 |
| ▼ BAW 222 (Dual)   | 3k*  | SP000015125 | SC75   | 80  | 200 | $\leq 1.25$ | 150 |
| SMBD 7000 (Dual)   | 3k*  | SP000014938 | SOT23  | 100 | 200 | $\leq 1.1$  | 100 |
| ▼ MMBD 7000 (Dual) | 3k*  | SP000014935 | SOT23  | 100 | 200 | $\leq 1.1$  | 100 |
| SMBD 7000 (Dual)   | 10k* | SP000014937 | SOT23  | 100 | 200 | $\leq 1.1$  | 100 |

### Schottky Diodes (8 mm Tape)

|                     |        |              |          |    |     |              |     |
|---------------------|--------|--------------|----------|----|-----|--------------|-----|
| BAS 40              | 3k*    | SP000010235  | SOT23    | 40 | 120 | $\leq 0.380$ | 1   |
| BAS 40              | 10k*   | SP000010233  | SOT23    | 40 | 120 | $\leq 0.380$ | 1   |
| BAS 40-02L          | 15k*   | SP000013549  | TSLP-2-1 | 40 | 120 | $\leq 0.380$ | 40  |
| BAS 40-04 (Dual)    | 3k*    | SP000010241  | SOT23    | 40 | 120 | $\leq 0.380$ | 1   |
| BAS 40-04 (Dual)    | 10k*   | SP000010243  | SOT23    | 40 | 120 | $\leq 0.380$ | 1   |
| BAS 40-05 (Dual)    | 3k*    | SP000010240  | SOT23    | 40 | 120 | $\leq 0.380$ | 1   |
| BAS 40-05 (Dual)    | 10k*   | SP000010242  | SOT23    | 40 | 120 | $\leq 0.380$ | 1   |
| BAS 40-05W (Dual)   | 3k*    | SP000014595  | SOT323   | 40 | 120 | $\leq 0.380$ | 1   |
| BAS 40-06 (Dual)    | 3k*    | SP000010239  | SOT23    | 40 | 120 | $\leq 0.380$ | 1   |
| BAS 40-06 (Dual)    | 10k*   | SP000010244  | SOT23    | 40 | 120 | $\leq 0.380$ | 1   |
| BAS 40-06W (Dual)   | 3k*    | SP000014597  | SOT323   | 40 | 120 | $\leq 0.380$ | 1   |
| BAS 40-07 (Dual)    | 3k*    | SP000010245  | SOT143   | 40 | 120 | $\leq 0.380$ | 1   |
| ▼ BAS 40-07 (Dual)  | 10x3k* | SP000056361  | SOT143   | 40 | 120 | $\leq 0.380$ | 1   |
| BAS 40-07W (Dual)   | 3k*    | SP000010246  | SOT343   | 40 | 120 | 0.310        | 1   |
| BAS 52-02V          | 3k*    | SP000013936  | SC79     | 45 | 750 | $\leq 0.400$ | 200 |
| ▼ BAS 52-02V        | 8k*    | SP0000104721 | SC79     | 45 | 750 | $\leq 0.400$ | 200 |
| BAS 70              | 3k*    | SP000010247  | SOT23    | 70 | 70  | $\leq 0.410$ | 1   |
| BAS 70              | 10k*   | SP000010248  | SOT23    | 70 | 70  | $\leq 0.410$ | 1   |
| BAS 70-02L          | 15k*   | SP000013550  | TSLP-2-1 | 70 | 70  | $\leq 0.420$ | 15  |
| BAS 70-02W (Dual)   | 3k*    | SP000012521  | SCD80    | 70 | 70  | $\leq 0.410$ | 1   |
| BAS 70-04 (Dual)    | 3k*    | SP000010253  | SOT23    | 70 | 70  | $\leq 0.410$ | 1   |
| BAS 70-04 (Dual)    | 10k*   | SP000010256  | SOT23    | 70 | 70  | $\leq 0.410$ | 1   |
| BAS 70-04S (Quad)   | 3k*    | SP000014598  | SOT363   | 70 | 70  | 0.410        | 1   |
| BAS 70-04W (Dual)   | 3k*    | SP000010249  | SOT323   | 70 | 70  | 0.410        | 1   |
| BAS 70-05 (Dual)    | 3k*    | SP000010252  | SOT23    | 70 | 70  | 0.410        | 1   |
| ▼ BAS 70-05 (Dual)  | 10k*   | SP000078827  | SOT23    | 70 | 70  | 0.410        | 1   |
| BAS 70-05W (Dual)   | 3k*    | SP000010250  | SOT323   | 70 | 70  | 0.410        | 1   |
| BAS 70-06 (Dual)    | 3k*    | SP000010254  | SOT23    | 70 | 70  | 0.410        | 1   |
| BAS 70-06 (Dual)    | 10k*   | SP000010260  | SOT23    | 70 | 70  | 0.410        | 1   |
| BAS 70-06W (Dual)   | 3k*    | SP000010251  | SOT323   | 70 | 70  | 0.410        | 1   |
| BAS 70-07 (Dual)    | 3k*    | SP000010266  | SOT143   | 70 | 70  | 0.410        | 1   |
| BAS 70-07 (Dual)    | 10k*   | SP000010269  | SOT143   | 70 | 70  | 0.410        | 1   |
| ■ BAS 70-07W (Dual) | 3k*    | SP000010270  | SOT343   | 70 | 70  | 0.380        | 1   |
| BAS 140W            | 3k*    | SP000010199  | SOD323   | 40 | 120 | $\leq 0.380$ | 1   |
| BAS 170W            | 3k*    | SP000010216  | SOD323   | 70 | 70  | $\leq 0.410$ | 1   |

\* Order unit

SMD = Surface Mounted Device

## Silicon Discrete Components

| Type | Ordering Code | Package | Maximum Ratings |       | Characteristics<br>( $T_A = 25^\circ\text{C}$ ) |    |       |
|------|---------------|---------|-----------------|-------|-------------------------------------------------|----|-------|
|      |               |         | $V_R$           | $I_F$ | $V_F$                                           | at | $I_F$ |
|      |               |         | V               | mA    | V                                               |    | mA    |

### AF Diodes

#### Schottky Diodes (8 mm Tape) (cont'd)

|                     |      |             |          |     |      |         |     |
|---------------------|------|-------------|----------|-----|------|---------|-----|
| ▼ BAS 3005B-02V     | 3k*  | SP000065626 | SC79     | 30  | 500  | ≤ 0.360 | 1   |
| ▼ BAS 3010A-03W     | 3k*  | SP000068629 | SOD323   | 30  | 1000 | ≤ 0.290 | 1   |
| ▼ BAS 3010B-03W     | 3k*  | SP000068630 | SOD323   | 30  | 1000 | ≤ 0.360 | 1   |
| ▼ BAT 54            | 3k*  | SP000068499 | SOT23    | 30  | 200  | 0.320   | 1   |
| ▼ BAT 54-02LRH      | 3k*  | SP000234099 | TSLP-2-7 | 30  | 200  | 0.320   | 1   |
| ▼ BAT 54-02V        | 3k*  | SP000232851 | SC79     | 30  | 200  | 0.320   | 1   |
| ▼ BAT 54-04 (Dual)  | 3k*  | SP000068500 | SOT323   | 30  | 200  | 0.320   | 1   |
| ▼ BAT 54-04W (Dual) | 3k*  | SP000233428 | SOT23    | 30  | 200  | 0.320   | 1   |
| ▼ BAT 54-05 (Dual)  | 3k*  | SP000068509 | SOT23    | 30  | 200  | 0.320   | 1   |
| ▼ BAT 54-05W (Dual) | 3k*  | SP000233429 | SOT323   | 30  | 200  | 0.320   | 1   |
| ▼ BAT 54-06 (Dual)  | 3k*  | SP000068510 | SOT23    | 30  | 200  | 0.320   | 1   |
| ▼ BAT 54-06W (Dual) | 3k*  | SP000233430 | SOT323   | 30  | 200  | 0.320   | 1   |
| ▼ BAT 54W (Dual)    | 3k*  | SP000233431 | SOT323   | 30  | 200  | 0.320   | 1   |
| ■ BAT 64            | 3k*  | SP000010307 | SOT23    | 40  | 250  | 0.385   | 1   |
| BAT 64-02W          | 3k*  | SP000012516 | SCD80    | 40  | 250  | 0.385   | 1   |
| ■ BAT 64-04 (Dual)  | 3k*  | SP000010309 | SOT23    | 40  | 250  | 0.385   | 1   |
| BAT 64-04 (Dual)    | 10k* | SP000010314 | SOT23    | 40  | 250  | 0.385   | 1   |
| BAT 64-04T (Dual)   | 3k*  | SP000029976 | SC75     | 40  | 250  | 0.385   | 1   |
| ■ BAT 64-04W (Dual) | 3k*  | SP000014600 | SOT323   | 40  | 250  | 0.385   | 1   |
| ■ BAT 64-05 (Dual)  | 3k*  | SP000010310 | SOT23    | 40  | 250  | 0.385   | 1   |
| BAT 64-05W (Dual)   | 3k*  | SP000014601 | SOT323   | 40  | 250  | 0.385   | 1   |
| ■ BAT 64-06 (Dual)  | 3k*  | SP000010311 | SOT23    | 40  | 250  | 0.385   | 1   |
| BAT 64-06W (Dual)   | 3k*  | SP000014602 | SOT323   | 40  | 250  | 0.385   | 1   |
| BAT 165             | 3k*  | SP000010277 | SOD323   | 40  | 750  | ≤ 0.700 | 750 |
| BAT 240A (Dual)     | 3k*  | SP000010292 | SOT23    | 240 | 400  | 0.325   | 10  |

\* Order unit

SMD = Surface Mounted Device

# Silicon Discrete Components

| Type | Ordering Code | Package | Maximum Ratings |          | Characteristics<br>( $T_A = 25^\circ\text{C}$ ) |    |       |          |
|------|---------------|---------|-----------------|----------|-------------------------------------------------|----|-------|----------|
|      |               |         | $V_{CEO}$       | $I_{CM}$ | $h_{FE}$                                        | at | $I_C$ | $V_{CE}$ |
|      |               |         | V               | mA       |                                                 |    | mA    | V        |

## AF Transistors

### NPN Transistors (8 mm Tape)

|              |        |             |          |    |      |             |     |   |
|--------------|--------|-------------|----------|----|------|-------------|-----|---|
| BC 817-16    | 3k*    | SP000010501 | SOT23    | 45 | 1000 | 100 ... 250 | 100 | 1 |
| BC 817-16    | 10k*   | SP000010513 | SOT23    | 45 | 1000 | 100 ... 250 | 100 | 1 |
| ▼ BC 817-16  | 9x10k* | SP000223935 | SOT23    | 45 | 1000 | 100 ... 250 | 100 | 1 |
| ▼ BC 817-16  | 10x3k* | SP000223882 | SOT23    | 45 | 1000 | 100 ... 250 | 100 | 1 |
| BC 817-25    | 3k*    | SP000010500 | SOT23    | 45 | 1000 | 160 ... 400 | 100 | 1 |
| BC 817-25    | 10k*   | SP000010510 | SOT23    | 45 | 1000 | 160 ... 400 | 100 | 1 |
| ▼ BC 817-25  | 9x10k* | SP000223936 | SOT23    | 45 | 1000 | 160 ... 400 | 100 | 1 |
| ▼ BC 817-25  | 10x3k* | SP000223884 | SOT23    | 45 | 1000 | 160 ... 400 | 100 | 1 |
| BC 817-25W   | 3k*    | SP000010485 | SOT323   | 45 | 1000 | 160 ... 400 | 100 | 1 |
| ▼ BC 817-25W | 10k*   | SP000010484 | SOT323   | 45 | 1000 | 160 ... 400 | 100 | 1 |
| BC 817-40    | 3k*    | SP000010502 | SOT23    | 45 | 1000 | 250 ... 630 | 100 | 1 |
| BC 817-40    | 10k*   | SP000010512 | SOT23    | 45 | 1000 | 250 ... 630 | 100 | 1 |
| ▼ BC 817-40  | 9x10k* | SP000223938 | SOT23    | 45 | 1000 | 250 ... 630 | 100 | 1 |
| ▼ BC 817-40  | 10x3k* | SP000223885 | SOT23    | 45 | 1000 | 250 ... 630 | 100 | 1 |
| BC 817-40W   | 3k*    | SP000010487 | SOT323   | 45 | 1000 | 250 ... 630 | 100 | 1 |
| BC 818-16W   | 3k*    | SP000010488 | SOT323   | 25 | 1000 | 100 ... 250 | 100 | 1 |
| BC 818-25    | 3k*    | SP000010503 | SOT23    | 25 | 1000 | 160 ... 400 | 100 | 1 |
| BC 818-40    | 3k*    | SP000010495 | SOT23    | 25 | 1000 | 250 ... 630 | 100 | 1 |
| BC 846A      | 3k*    | SP000010531 | SOT23    | 65 | 200  | 110 ... 220 | 2   | 5 |
| BC 846A      | 10k*   | SP000010532 | SOT23    | 65 | 200  | 110 ... 220 | 2   | 5 |
| BC 846B      | 3k*    | SP000010530 | SOT23    | 65 | 200  | 200 ... 450 | 2   | 5 |
| BC 846B      | 10k*   | SP000010534 | SOT23    | 65 | 200  | 200 ... 450 | 2   | 5 |
| ▼ BC 846B    | 9x10k* | SP000223940 | SOT23    | 65 | 200  | 200 ... 450 | 2   | 5 |
| ▼ BC 846B    | 10x3k* | SP000223891 | SOT23    | 65 | 200  | 200 ... 450 | 2   | 5 |
| BC 846BW     | 3k*    | SP000010523 | SOT323   | 65 | 200  | 200 ... 450 | 2   | 5 |
| BC 847A      | 3k*    | SP000010571 | SOT23    | 45 | 200  | 110 ... 220 | 2   | 5 |
| ■ BC 847B    | 3k*    | SP000010559 | SOT23    | 45 | 200  | 200 ... 450 | 2   | 5 |
| ▼ BC 847B    | 3k*    | SP000209608 | SOT23    | 45 | 200  | 200 ... 450 | 2   | 5 |
| BC 847B      | 10k*   | SP000010576 | SOT23    | 45 | 200  | 200 ... 450 | 2   | 5 |
| ▼ BC 847B    | 9x10k* | SP000223941 | SOT23    | 45 | 200  | 200 ... 450 | 2   | 5 |
| ▼ BC 847B    | 10x3k* | SP000223887 | SOT23    | 45 | 200  | 200 ... 450 | 2   | 5 |
| BC 847BF     | 3k*    | SP000012995 | TSFP-3   | 45 | 200  | 200 ... 450 | 2   | 5 |
| BC 847BL3    | 15k*   | SP000013553 | TSLP-3-1 | 45 | 200  | 200 ... 450 | 2   | 5 |
| BC 847BT     | 10k*   | SP000012401 | SC75     | 45 | 200  | 200 ... 450 | 2   | 5 |
| ■ BC 847BW   | 3k*    | SP000010606 | SOT323   | 45 | 200  | 200 ... 450 | 2   | 5 |
| BC 847C      | 3k*    | SP000010565 | SOT23    | 45 | 200  | 420 ... 800 | 2   | 5 |
| BC 847C      | 10k*   | SP000010590 | SOT23    | 45 | 200  | 420 ... 800 | 2   | 5 |
| ▼ BC 847C    | 9x10k* | SP000223942 | SOT23    | 45 | 200  | 420 ... 800 | 2   | 5 |
| ▼ BC 847C    | 10x3k* | SP000223890 | SOT23    | 45 | 200  | 420 ... 800 | 2   | 5 |
| BC 847CW     | 3k*    | SP000010607 | SOT323   | 45 | 200  | 420 ... 800 | 2   | 5 |
| ▼ BC 847CW   | 10k*   | SP000010616 | SOT323   | 45 | 200  | 420 ... 800 | 2   | 5 |
| ▼ BC 847CW   | 10x3k* | SP000056355 | SOT323   | 45 | 200  | 420 ... 800 | 2   | 5 |
| BC 848A      | 3k*    | SP000010568 | SOT23    | 30 | 200  | 110 ... 220 | 2   | 5 |
| BC 848B      | 3k*    | SP000010561 | SOT23    | 30 | 200  | 200 ... 450 | 2   | 5 |
| BC 848B      | 10k*   | SP000010581 | SOT23    | 30 | 200  | 200 ... 450 | 2   | 5 |
| BC 848BL3    | 15k*   | SP000013554 | TSLP-3-1 | 30 | 200  | 200 ... 450 | 2   | 5 |
| BC 848BW     | 3k*    | SP000010610 | SOT323   | 30 | 200  | 200 ... 450 | 2   | 5 |

\* Order unit

SMD = Surface Mounted Device

# Silicon Discrete Components

| Type | Ordering Code | Package | Maximum Ratings              |                              | Characteristics<br>( $T_A = 25^{\circ}\text{C}$ ) |                             |                             |  |
|------|---------------|---------|------------------------------|------------------------------|---------------------------------------------------|-----------------------------|-----------------------------|--|
|      |               |         | $V_{\text{CEO}}$<br><b>V</b> | $I_{\text{CM}}$<br><b>mA</b> | $h_{\text{FE}}$<br><b>at</b>                      | $I_{\text{C}}$<br><b>mA</b> | $V_{\text{CE}}$<br><b>V</b> |  |

## AF Diodes

### NPN Diodes (8 mm Tape)

(cont'd)

|              |        |             |        |     |      |             |     |    |
|--------------|--------|-------------|--------|-----|------|-------------|-----|----|
| BC 848C      | 3k*    | SP000010552 | SOT23  | 30  | 200  | 420 ... 800 | 2   | 5  |
| ▼ BC 848C    | 10x3k* | SP000095914 | SOT23  | 30  | 200  | 420 ... 800 | 2   | 5  |
| BC 848C      | 10k*   | SP000010582 | SOT23  | 30  | 200  | 420 ... 800 | 2   | 5  |
| BC 848CW     | 3k*    | SP000010611 | SOT323 | 30  | 200  | 420 ... 800 | 2   | 5  |
| BC 849B      | 3k*    | SP000010567 | SOT23  | 30  | 200  | 200 ... 450 | 2   | 5  |
| BC 849C      | 3k*    | SP000010564 | SOT23  | 30  | 200  | 420 ... 800 | 2   | 5  |
| BC 849CW     | 3k*    | SP000010613 | SOT323 | 30  | 200  | 420 ... 800 | 2   | 5  |
| BC 850B      | 3k*    | SP000010572 | SOT23  | 45  | 200  | 200 ... 450 | 2   | 5  |
| ▼ BC 850B    | 9x10k* | SP000223943 | SOT23  | 45  | 200  | 200 ... 450 | 2   | 5  |
| ▼ BC 850B    | 10x3k* | SP000223897 | SOT23  | 45  | 200  | 200 ... 450 | 2   | 5  |
| ▼ BC 850BF   | 3k*    | SP000012997 | TSFP-3 | 45  | 200  | 200 ... 450 | 2   | 5  |
| BC 850BW     | 3k*    | SP000010614 | SOT323 | 45  | 200  | 200 ... 450 | 2   | 5  |
| BC 850C      | 3k*    | SP000010563 | SOT23  | 45  | 200  | 420 ... 800 | 2   | 5  |
| ▼ BC 850C    | 9x10k* | SP000207342 | SOT23  | 45  | 200  | 420 ... 800 | 2   | 5  |
| ▼ BC 850C    | 10x3k* | SP000223898 | SOT23  | 45  | 200  | 420 ... 800 | 2   | 5  |
| BC 850CW     | 3k*    | SP000010615 | SOT323 | 45  | 200  | 420 ... 800 | 2   | 5  |
| BCW 60B      | 3k*    | SP000010551 | SOT23  | 32  | 200  | 180 ... 310 | 2   | 5  |
| BCW 60C      | 3k*    | SP000010548 | SOT23  | 32  | 200  | 250 ... 460 | 2   | 5  |
| BCW 60D      | 3k*    | SP000010549 | SOT23  | 32  | 200  | 380 ... 630 | 2   | 5  |
| BCW 60FF     | 3k*    | SP000010554 | SOT23  | 32  | 200  | 250 ... 460 | 2   | 5  |
| BCW 66F      | 3k*    | SP000010504 | SOT23  | 45  | 1000 | 100 ... 250 | 100 | 1  |
| BCW 66G      | 3k*    | SP000010496 | SOT23  | 45  | 1000 | 160 ... 400 | 100 | 1  |
| ▼ BCW 66G    | 10k*   | SP000010509 | SOT23  | 45  | 1000 | 160 ... 400 | 100 | 1  |
| BCW 66H      | 3k*    | SP000010499 | SOT23  | 45  | 1000 | 250 ... 630 | 100 | 1  |
| ▼ BCW 66H    | 10x3k* | SP000010493 | SOT23  | 45  | 1000 | 250 ... 630 | 100 | 1  |
| BCX 41       | 3k*    | SP000010894 | SOT23  | 125 | 1000 | ≥ 63        | 100 | 1  |
| BCX 70G      | 3k*    | SP000010555 | SOT23  | 45  | 200  | 120 ... 220 | 2   | 5  |
| BCX 70H      | 3k*    | SP000010550 | SOT23  | 45  | 200  | 180 ... 310 | 2   | 5  |
| BCX 70H      | 10k*   | SP000010578 | SOT23  | 45  | 200  | 180 ... 310 | 2   | 5  |
| BCX 70J      | 3k*    | SP000010556 | SOT23  | 45  | 200  | 250 ... 460 | 2   | 5  |
| BCX 70J      | 10k*   | SP000010573 | SOT23  | 45  | 200  | 250 ... 460 | 2   | 5  |
| BCX 70K      | 3k*    | SP000010558 | SOT23  | 45  | 200  | 380 ... 630 | 2   | 5  |
| BDP 947      | 1k*    | SP000010931 | SOT223 | 45  | 5000 | 40 ... 475  | 500 | 1  |
| BDP 949      | 1k*    | SP000010932 | SOT223 | 60  | 5000 | 40 ... 475  | 500 | 1  |
| BDP 953      | 1k*    | SP000010934 | SOT223 | 100 | 5000 | 40 ... 475  | 500 | 1  |
| ■ SMBT 2222A | 3k*    | SP000011176 | SOT23  | 40  | 600  | 100 ... 300 | 150 | 10 |
| ▼ MMBT 2222A | 3k*    | SP000011174 | SOT23  | 40  | 600  | 100 ... 300 | 150 | 10 |
| SMBT 3904    | 3k*    | SP000011673 | SOT23  | 40  | 200  | 100 ... 300 | 10  | 1  |
| SMBT 3904    | 10k*   | SP000011675 | SOT23  | 40  | 200  | 100 ... 300 | 10  | 1  |
| ▼ SMBT 3904  | 9x10k* | SP000223947 | SOT23  | 40  | 200  | 100 ... 300 | 10  | 1  |
| ▼ SMBT 3904  | 10x3k* | SP000223860 | SOT23  | 40  | 200  | 100 ... 300 | 10  | 1  |
| ▼ MMBT 3904  | 3k*    | SP000011671 | SOT23  | 40  | 200  | 100 ... 300 | 10  | 1  |
| ▼ MMBT 3904  | 10k*   | SP000011670 | SOT23  | 40  | 200  | 100 ... 300 | 10  | 1  |
| SMBTA 06     | 3k*    | SP000011686 | SOT23  | 80  | 500  | ≥ 100       | 100 | 1  |
| ▼ MMBTA 06   | 3k*    | SP000011685 | SOT23  | 80  | 500  | ≥ 100       | 100 | 1  |
| SMBTA 06     | 10k*   | SP000011688 | SOT23  | 80  | 500  | ≥ 100       | 100 | 1  |

\* Order unit

SMD = Surface Mounted Device

## Silicon Discrete Components

| Type | Ordering Code | Package | Maximum Ratings |                      |             |                 | Resistance Value |             |
|------|---------------|---------|-----------------|----------------------|-------------|-----------------|------------------|-------------|
|      |               |         | $V_{CEO}$<br>V  | $V_{I(on) max}$<br>V | $I_C$<br>mA | $P_{tot}$<br>mW | $R_1$<br>kΩ      | $R_2$<br>kΩ |

### AF Transistors

#### NPN Digital Transistors (8 mm Tape)

|            |        |             |          |    |    |     |     |     |     |
|------------|--------|-------------|----------|----|----|-----|-----|-----|-----|
| BCR 101L3  | 15k*   | SP000014850 | TSLP-3-4 | 50 | 50 | 50  | 250 | 100 | 100 |
| BCR 101T   | 3k*    | SP000014813 | SC75     | 50 | 50 | 50  | 250 | 100 | 100 |
| BCR 103F   | 3k*    | SP000014847 | TSFP-3   | 50 | 10 | 100 | 250 | 2.2 | 2.2 |
| BCR 103L3  | 15k*   | SP000014756 | TSLP-3-4 | 50 | 10 | 100 | 250 | 2.2 | 2.2 |
| BCR 103T   | 3k*    | SP000014757 | SC75     | 50 | 10 | 100 | 250 | 2.2 | 2.2 |
| BCR 108    | 3k*    | SP000010736 | SOT23    | 50 | 10 | 100 | 200 | 2.2 | 47  |
| BCR 108    | 10k*   | SP000010737 | SOT23    | 50 | 10 | 100 | 200 | 2.2 | 47  |
| ▼ BCR 108  | 10x3k* | SP000056348 | SOT23    | 50 | 10 | 100 | 200 | 2.2 | 47  |
| BCR 108F   | 3k*    | SP000013046 | TSFP-3   | 50 | 10 | 100 | 250 | 2.2 | 47  |
| BCR 108L3  | 15k*   | SP000014758 | TSLP-3-4 | 50 | 10 | 100 | 250 | 2.2 | 47  |
| BCR 108T   | 3k*    | SP000012799 | SC75     | 50 | 10 | 100 | 250 | 2.2 | 47  |
| BCR 108W   | 3k*    | SP000010746 | SOT323   | 50 | 10 | 100 | 250 | 2.2 | 47  |
| BCR 112    | 3k*    | SP000010747 | SOT23    | 50 | 15 | 100 | 200 | 4.7 | 4.7 |
| BCR 112F   | 3k*    | SP000014062 | TSFP-3   | 50 | 15 | 100 | 250 | 4.7 | 4.7 |
| BCR 112L3  | 15k*   | SP000014852 | TSLP-3-4 | 50 | 15 | 100 | 250 | 4.7 | 4.7 |
| BCR 112T   | 3k*    | SP000014126 | SC75     | 50 | 15 | 100 | 250 | 4.7 | 4.7 |
| BCR 112W   | 3k*    | SP000010748 | SOT323   | 50 | 15 | 100 | 250 | 4.7 | 4.7 |
| BCR 114F   | 3k*    | SP000014848 | TSFP-3   | 50 | 15 | 100 | 250 | 4.7 | 10  |
| BCR 114L3  | 15k*   | SP000014851 | TSLP-3-4 | 50 | 15 | 100 | 250 | 4.7 | 10  |
| BCR 114T   | 3k*    | SP000014773 | SC75     | 50 | 15 | 100 | 250 | 4.7 | 10  |
| BCR 116    | 3k*    | SP000010749 | SOT23    | 50 | 15 | 100 | 200 | 4.7 | 47  |
| BCR 116    | 10k*   | SP000010751 | SOT23    | 50 | 15 | 100 | 200 | 4.7 | 47  |
| BCR 116F   | 3k*    | SP000013047 | TSFP-3   | 50 | 15 | 100 | 250 | 4.7 | 47  |
| BCR 116L3  | 15k*   | SP000014853 | TSLP-3-4 | 50 | 15 | 100 | 250 | 4.7 | 47  |
| BCR 116T   | 3k*    | SP000014775 | SC75     | 50 | 15 | 100 | 250 | 4.7 | 47  |
| BCR 116W   | 3k*    | SP000012264 | SOT323   | 50 | 15 | 100 | 250 | 4.7 | 47  |
| BCR 119    | 3k*    | SP000010752 | SOT23    | 50 | 15 | 100 | 200 | 4.7 | —   |
| ▼ BCR 119  | 10k*   | SP000010754 | SOT23    | 50 | 15 | 100 | 200 | 4.7 | —   |
| BCR 119F   | 3k*    | SP000014440 | TSFP-3   | 50 | 15 | 100 | 250 | 4.7 | —   |
| BCR 119L3  | 15k*   | SP000014854 | TSLP-3-4 | 50 | 15 | 100 | 250 | 4.7 | —   |
| BCR 119T   | 3k*    | SP000014774 | SC75     | 50 | 15 | 100 | 250 | 4.7 | —   |
| BCR 119W   | 3k*    | SP000012267 | SOT323   | 50 | 15 | 100 | 250 | 4.7 | —   |
| ■ BCR 129  | 3k*    | SP000012520 | SOT23    | 50 | 20 | 100 | 200 | 10  | —   |
| BCR 129F   | 3k*    | SP000014441 | TSFP-3   | 50 | 20 | 100 | 250 | 10  | —   |
| BCR 129L3  | 15k*   | SP000014855 | TSLP-3-4 | 50 | 20 | 100 | 250 | 10  | —   |
| BCR 129T   | 3k*    | SP000012800 | SC75     | 50 | 20 | 100 | 250 | 10  | —   |
| ▼ BCR 129W | 3k*    | SP000014963 | SOT323   | 50 | 20 | 100 | 250 | 10  | —   |
| BCR 133    | 3k*    | SP000010757 | SOT23    | 50 | 20 | 100 | 200 | 10  | 10  |
| ▼ BCR 133  | 10k*   | SP000010759 | SOT23    | 50 | 20 | 100 | 200 | 10  | 10  |
| ▼ BCR 133  | 10x3k* | SP000056346 | SOT23    | 50 | 20 | 100 | 200 | 10  | 10  |
| BCR 133F   | 3k*    | SP000014050 | TSFP-3   | 50 | 20 | 100 | 250 | 10  | 10  |
| ▼ BCR 133F | 10x3k* | SP000014049 | TSFP-3   | 50 | 20 | 100 | 250 | 10  | 10  |
| BCR 133L3  | 15k*   | SP000013564 | TSLP-3-4 | 50 | 20 | 100 | 250 | 10  | 10  |
| BCR 133T   | 3k*    | SP000012801 | SC75     | 50 | 20 | 100 | 250 | 10  | 10  |
| ■ BCR 133W | 3k*    | SP000010764 | SOT323   | 50 | 20 | 100 | 250 | 10  | 10  |

\* Order unit

SMD = Surface Mounted Device

## Silicon Discrete Components

| Type | Ordering Code | Package | Maximum Ratings |                 |       |           | Resistance Value |            |
|------|---------------|---------|-----------------|-----------------|-------|-----------|------------------|------------|
|      |               |         | $V_{CEO}$       | $V_{I(on) max}$ | $I_C$ | $P_{tot}$ | $R_1$            | $R_2$      |
|      |               |         | V               | V               | mA    | mW        | k $\Omega$       | k $\Omega$ |

### AF Transistors

#### NPN Digital Transistors (8 mm Tape)

(cont'd)

|            |        |             |          |    |    |     |     |     |     |
|------------|--------|-------------|----------|----|----|-----|-----|-----|-----|
| BCR 135    | 3k*    | SP000010765 | SOT23    | 50 | 20 | 100 | 200 | 10  | 47  |
| BCR 135    | 10k*   | SP000010767 | SOT23    | 50 | 20 | 100 | 200 | 10  | 47  |
| ▼ BCR 135  | 10x3k* | SP000095915 | SOT23    | 50 | 20 | 100 | 200 | 10  | 47  |
| BCR 135F   | 3k*    | SP000013048 | TSFP-3   | 50 | 20 | 100 | 250 | 10  | 47  |
| BCR 135L3  | 15k*   | SP000014856 | TSLP-3-4 | 50 | 20 | 100 | 250 | 10  | 47  |
| BCR 135T   | 3k*    | SP000012802 | SC75     | 50 | 20 | 100 | 250 | 10  | 47  |
| BCR 135W   | 3k*    | SP000010768 | SOT323   | 50 | 20 | 100 | 250 | 10  | 47  |
| BCR 139F   | 3k*    | SP000014442 | TSFP-3   | 50 | 30 | 100 | 250 | 22  | —   |
| BCR 139L3  | 15k*   | SP000014857 | TSLP-3-4 | 50 | 30 | 100 | 250 | 22  | —   |
| BCR 139T   | 3k*    | SP000014763 | SC75     | 50 | 30 | 100 | 250 | 22  | —   |
| BCR 141    | 3k*    | SP000010769 | SOT23    | 50 | 30 | 100 | 200 | 22  | 22  |
| ▼ BCR 141  | 10k*   | SP000010771 | SOT23    | 50 | 30 | 100 | 200 | 22  | 22  |
| BCR 141F   | 3k*    | SP000013049 | TSFP-3   | 50 | 30 | 100 | 250 | 22  | 22  |
| BCR 141L3  | 15k*   | SP000014858 | TSLP-3-4 | 50 | 30 | 100 | 250 | 22  | 22  |
| BCR 141T   | 3k*    | SP000012803 | SC75     | 50 | 30 | 100 | 250 | 22  | 22  |
| BCR 141W   | 3k*    | SP000010773 | SOT323   | 50 | 30 | 100 | 250 | 22  | 22  |
| BCR 142    | 3k*    | SP000010775 | SOT23    | 50 | 30 | 100 | 200 | 22  | 47  |
| ▼ BCR 142  | 10x3k* | SP000010774 | SOT23    | 50 | 30 | 100 | 200 | 22  | 47  |
| BCR 142F   | 3k*    | SP000014063 | TSFP-3   | 50 | 30 | 100 | 250 | 22  | 47  |
| BCR 142L3  | 15k*   | SP000014859 | TSLP-3-4 | 50 | 30 | 100 | 250 | 22  | 47  |
| BCR 142T   | 3k*    | SP000012804 | SC75     | 50 | 30 | 100 | 250 | 22  | 47  |
| BCR 142W   | 3k*    | SP000012269 | SOT323   | 50 | 30 | 100 | 250 | 22  | 47  |
| BCR 146    | 3k*    | SP000010777 | SOT23    | 50 | 50 | 70  | 200 | 47  | 22  |
| BCR 146F   | 3k*    | SP000014443 | TSFP-3   | 50 | 50 | 70  | 250 | 47  | 22  |
| BCR 146L3  | 15k*   | SP000014860 | TSLP-3-4 | 50 | 50 | 70  | 250 | 47  | 22  |
| BCR 146T   | 3k*    | SP000014776 | SC75     | 50 | 50 | 70  | 250 | 47  | 22  |
| BCR 148    | 3k*    | SP000010780 | SOT23    | 50 | 50 | 70  | 200 | 47  | 47  |
| ▼ BCR 148  | 10x3k* | SP000056351 | SOT23    | 50 | 50 | 70  | 200 | 47  | 47  |
| BCR 148F   | 3k*    | SP000013051 | TSFP-3   | 50 | 50 | 70  | 250 | 47  | 47  |
| ▼ BCR 148F | 10x3k* | SP000013050 | TSFP-3   | 50 | 50 | 70  | 250 | 47  | 47  |
| BCR 148L3  | 15k*   | SP000014861 | TSLP-3-4 | 50 | 50 | 70  | 250 | 47  | 47  |
| BCR 148T   | 3k*    | SP000012805 | SC75     | 50 | 50 | 70  | 250 | 47  | 47  |
| ■ BCR 148W | 3k*    | SP000010783 | SOT323   | 50 | 50 | 70  | 250 | 47  | 47  |
| BCR 149F   | 3k*    | SP000014849 | TSFP-3   | 50 | 50 | 70  | 250 | 47  | —   |
| BCR 149L3  | 15k*   | SP000014862 | TSLP-3-4 | 50 | 50 | 70  | 250 | 47  | —   |
| BCR 149 T  | 3k*    | SP000014814 | SC75     | 50 | 50 | 70  | 250 | 47  | —   |
| BCR 503    | 3k*    | SP000010839 | SOT23    | 50 | 12 | 500 | 330 | 2.2 | 2.2 |
| ▼ BCR 503  | 10x3k* | SP000056345 | SOT23    | 50 | 12 | 500 | 330 | 2.2 | 2.2 |
| BCR 505    | 3k*    | SP000010841 | SOT23    | 50 | 12 | 500 | 330 | 2.2 | 10  |
| BCR 512    | 3k*    | SP000010844 | SOT23    | 50 | 30 | 500 | 330 | 4.7 | 4.7 |
| ▼ BCR 512  | 10x3k* | SP000056341 | SOT23    | 50 | 30 | 500 | 330 | 4.7 | 4.7 |
| ▼ BCR 519  | 3k*    | SP000015052 | SOT23    | 50 | 30 | 500 | 330 | 4.7 | —   |
| BCR 521    | 3k*    | SP000010845 | SOT23    | 50 | 10 | 500 | 330 | 1.0 | 1.0 |
| BCR 523    | 3k*    | SP000010851 | SOT23    | 50 | 12 | 500 | 330 | 1.0 | 10  |
| BCR 523    | 10k*   | SP000010852 | SOT23    | 50 | 12 | 500 | 330 | 1.0 | 10  |
| BCR 533    | 3k*    | SP000010853 | SOT23    | 50 | 40 | 500 | 330 | 10  | 10  |

\* Order unit

SMD = Surface Mounted Device

## Silicon Discrete Components

| Type | Ordering Code | Package | Maximum Ratings  |                 | Characteristics<br>( $T_A = 25^\circ\text{C}$ ) |                 |    |                |                 |
|------|---------------|---------|------------------|-----------------|-------------------------------------------------|-----------------|----|----------------|-----------------|
|      |               |         | $V_{\text{CEO}}$ | $I_{\text{CM}}$ | $f_{\text{T}}$                                  | $h_{\text{FE}}$ | at | $I_{\text{C}}$ | $V_{\text{CE}}$ |
|      |               |         | V                | mA              | MHz                                             |                 |    | mA             | V               |

### AF Transistors

#### NPN Transistors (12 mm Tape)

|             |     |             |        |    |      |     |             |     |   |
|-------------|-----|-------------|--------|----|------|-----|-------------|-----|---|
| BCP 54      | 1k* | SP000010707 | SOT223 | 45 | 1500 | 125 | 40 ... 250  | 150 | 2 |
| BCP 54-16   | 1k* | SP000010709 | SOT223 | 45 | 1500 | 125 | 100 ... 250 | 150 | 2 |
| BCP 54-16   | 4k* | SP000010717 | SOT223 | 45 | 1500 | 125 | 100 ... 250 | 150 | 2 |
| BCP 55      | 1k* | SP000010713 | SOT223 | 60 | 1500 | 125 | 40 ... 250  | 150 | 2 |
| BCP 55-16   | 1k* | SP000010711 | SOT223 | 60 | 1500 | 125 | 100 ... 250 | 150 | 2 |
| BCP 56-10   | 1k* | SP000010712 | SOT223 | 80 | 1500 | 125 | 63 ... 160  | 150 | 2 |
| ▼ BCP 56-10 | 4k* | SP000010718 | SOT223 | 80 | 1500 | 125 | 63 ... 160  | 150 | 2 |
| BCP 56-16   | 1k* | SP000010706 | SOT223 | 80 | 1500 | 125 | 100 ... 250 | 150 | 2 |
| BCP 68-25   | 1k* | SP000010721 | SOT223 | 20 | 2000 | 100 | 160 ... 375 | 500 | 1 |
| BCX 54-16   | 1k* | SP000010918 | SOT89  | 45 | 1500 | 100 | 100 ... 250 | 150 | 2 |
| BCX 55      | 1k* | SP000010916 | SOT89  | 60 | 1500 | 100 | 40 ... 250  | 150 | 2 |
| BCX 55-16   | 1k* | SP000010920 | SOT89  | 60 | 1500 | 100 | 100 ... 250 | 150 | 2 |
| BCX 55-16   | 4k* | SP000010922 | SOT89  | 60 | 1500 | 100 | 100 ... 250 | 150 | 2 |
| BCX 56      | 1k* | SP000010914 | SOT89  | 80 | 1500 | 100 | 40 ... 250  | 150 | 2 |
| BCX 56-10   | 1k* | SP000010915 | SOT89  | 80 | 1500 | 100 | 63 ... 160  | 150 | 2 |
| BCX 56-16   | 1k* | SP000010913 | SOT89  | 80 | 1500 | 100 | 100 ... 250 | 150 | 2 |
| ▼ BCX 56-16 | 4k* | SP000017942 | SOT89  | 80 | 1500 | 100 | 100 ... 250 | 150 | 2 |
| BCX 68-10   | 1k* | SP000010924 | SOT89  | 20 | 2000 | 100 | 85 ... 160  | 500 | 1 |
| BCX 68-16   | 1k* | SP000010925 | SOT89  | 20 | 2000 | 100 | 100 ... 250 | 500 | 1 |
| BCX 68-25   | 1k* | SP000010926 | SOT89  | 20 | 2000 | 100 | 160 ... 375 | 500 | 1 |

\* Order unit

SMD = Surface Mounted Device

# Silicon Discrete Components

| Type | Ordering Code | Package | Maximum Ratings  |                 | Characteristics<br>( $T_A = 25^{\circ}\text{C}$ ) |    |                |                 |
|------|---------------|---------|------------------|-----------------|---------------------------------------------------|----|----------------|-----------------|
|      |               |         | $V_{\text{CEO}}$ | $I_{\text{CM}}$ | $h_{\text{FE}}$                                   | at | $I_{\text{C}}$ | $V_{\text{CE}}$ |
|      |               |         | V                | mA              |                                                   |    | mA             | V               |

## AF Transistors

### PNP Transistors (8 mm Tape)

|             |        |             |          |    |      |             |     |   |
|-------------|--------|-------------|----------|----|------|-------------|-----|---|
| BC 807-16   | 3k*    | SP000010474 | SOT23    | 45 | 1000 | 100 ... 250 | 100 | 1 |
| BC 807-16   | 10k*   | SP000010475 | SOT23    | 45 | 1000 | 100 ... 250 | 100 | 1 |
| BC 807-16W  | 3k*    | SP000014778 | SOT323   | 45 | 1000 | 100 ... 250 | 100 | 1 |
| BC 807-25   | 3k*    | SP000010472 | SOT23    | 45 | 1000 | 160 ... 400 | 100 | 1 |
| BC 807-25   | 10k*   | SP000010478 | SOT23    | 45 | 1000 | 160 ... 400 | 100 | 1 |
| ▼ BC 807-25 | 9x10k* | SP000223932 | SOT23    | 45 | 1000 | 160 ... 400 | 100 | 1 |
| ▼ BC 807-25 | 10x3k* | SP000223880 | SOT23    | 45 | 1000 | 160 ... 400 | 100 | 1 |
| BC 807-25W  | 3k*    | SP000014779 | SOT323   | 45 | 1000 | 160 ... 400 | 100 | 1 |
| BC 807-40   | 3k*    | SP000010473 | SOT23    | 45 | 1000 | 250 ... 630 | 100 | 1 |
| BC 807-40   | 10k*   | SP000010477 | SOT23    | 45 | 1000 | 250 ... 630 | 100 | 1 |
| ▼ BC 807-40 | 9x10k* | SP000223933 | SOT23    | 45 | 1000 | 250 ... 630 | 100 | 1 |
| ▼ BC 807-40 | 10x3k* | SP000223878 | SOT23    | 45 | 1000 | 250 ... 630 | 100 | 1 |
| BC 807-40W  | 3k*    | SP000014688 | SOT323   | 45 | 1000 | 250 ... 630 | 100 | 1 |
| BC 807-40W  | 10k*   | SP000014689 | SOT323   | 45 | 1000 | 250 ... 630 | 100 | 1 |
| BC 808-25   | 3k*    | SP000015031 | SOT23    | 25 | 1000 | 160 ... 400 | 100 | 1 |
| BC 808-25   | 10k*   | SP000015033 | SOT23    | 25 | 1000 | 160 ... 400 | 100 | 1 |
| BC 808-25W  | 3k*    | SP000014777 | SOT323   | 25 | 1000 | 160 ... 400 | 100 | 1 |
| BC 808-40   | 3k*    | SP000015032 | SOT23    | 25 | 1000 | 250 ... 630 | 100 | 1 |
| ▼ BC 808-40 | 10x3k* | SP000095913 | SOT23    | 25 | 1000 | 250 ... 630 | 100 | 1 |
| BC 808-40W  | 3k*    | SP000010462 | SOT323   | 25 | 1000 | 250 ... 630 | 100 | 1 |
| BC 856A     | 3k*    | SP000012934 | SOT23    | 65 | 200  | 125 ... 250 | 2   | 5 |
| BC 856B     | 3k*    | SP000012935 | SOT23    | 65 | 200  | 220 ... 475 | 2   | 5 |
| BC 856B     | 10k*   | SP000012936 | SOT23    | 65 | 200  | 220 ... 475 | 2   | 5 |
| BC 856BW    | 3k*    | SP000012943 | SOT323   | 65 | 200  | 220 ... 475 | 2   | 5 |
| BC 856BW    | 10k*   | SP000012945 | SOT323   | 65 | 200  | 220 ... 475 | 2   | 5 |
| BC 857A     | 3k*    | SP000010639 | SOT23    | 45 | 200  | 125 ... 250 | 2   | 5 |
| BC 857B     | 3k*    | SP000010633 | SOT23    | 45 | 200  | 220 ... 475 | 2   | 5 |
| BC 857B     | 10k*   | SP000010648 | SOT23    | 45 | 200  | 220 ... 475 | 2   | 5 |
| ▼ BC 857B   | 9x10k* | SP000223944 | SOT23    | 45 | 200  | 220 ... 475 | 2   | 5 |
| ▼ BC 857B   | 10x3k* | SP000223899 | SOT23    | 45 | 200  | 220 ... 475 | 2   | 5 |
| BC 857BF    | 3k*    | SP000012999 | TSFP-3   | 45 | 200  | 220 ... 475 | 2   | 5 |
| BC 857BL3   | 3k*    | SP000013556 | TSLP-3-1 | 45 | 200  | 220 ... 475 | 2   | 5 |
| BC 857BT    | 3k*    | SP000012404 | SC75     | 65 | 200  | 220 ... 475 | 2   | 5 |
| ■ BC 857BW  | 3k*    | SP000010672 | SOT323   | 45 | 200  | 220 ... 475 | 2   | 5 |
| BC 857C     | 3k*    | SP000010640 | SOT23    | 45 | 200  | 420 ... 800 | 2   | 5 |
| BC 857C     | 10k*   | SP000010660 | SOT23    | 45 | 200  | 420 ... 800 | 2   | 5 |
| ▼ BC 857C   | 9x10k* | SP000223945 | SOT23    | 45 | 200  | 420 ... 800 | 2   | 5 |
| ▼ BC 857C   | 10x3k* | SP000223900 | SOT23    | 45 | 200  | 420 ... 800 | 2   | 5 |
| BC 857CW    | 3k*    | SP000010673 | SOT323   | 45 | 200  | 420 ... 800 | 2   | 5 |
| BC 857CW    | 10k*   | SP000010682 | SOT323   | 45 | 200  | 420 ... 800 | 2   | 5 |
| BC 858A     | 3k*    | SP000010636 | SOT23    | 30 | 200  | 125 ... 250 | 2   | 5 |
| BC 858B     | 3k*    | SP000010634 | SOT23    | 30 | 200  | 220 ... 475 | 2   | 5 |
| BC 858B     | 10k*   | SP000010652 | SOT23    | 30 | 200  | 220 ... 475 | 2   | 5 |
| BC 858BL3   | 3k*    | SP000013555 | TSLP-3-1 | 30 | 200  | 220 ... 475 | 2   | 5 |
| BC 858BW    | 3k*    | SP000010675 | SOT323   | 30 | 200  | 220 ... 475 | 2   | 5 |

\* Order unit

SMD = Surface Mounted Device

# Silicon Discrete Components

| Type | Ordering Code | Package | Maximum Ratings  |                 | Characteristics<br>( $T_A = 25^\circ\text{C}$ ) |    |                |                 |
|------|---------------|---------|------------------|-----------------|-------------------------------------------------|----|----------------|-----------------|
|      |               |         | $V_{\text{CEO}}$ | $I_{\text{CM}}$ | $h_{\text{FE}}$                                 | at | $I_{\text{C}}$ | $V_{\text{CE}}$ |
|      |               |         | V                | mA              |                                                 |    | mA             | V               |

## AF Transistors

### PNP Transistors (8 mm Tape)

(cont'd)

|                  |        |             |        |     |      |             |     |    |
|------------------|--------|-------------|--------|-----|------|-------------|-----|----|
| BC 858C          | 3k*    | SP000010624 | SOT23  | 30  | 200  | 420 ... 800 | 2   | 5  |
| BC 858C          | 10k*   | SP000010654 | SOT23  | 30  | 200  | 420 ... 800 | 2   | 5  |
| BC 858CW         | 3k*    | SP000010676 | SOT323 | 30  | 200  | 420 ... 800 | 2   | 5  |
| BC 859C          | 3k*    | SP000010637 | SOT23  | 30  | 200  | 420 ... 800 | 2   | 5  |
| BC 860B          | 3k*    | SP000010642 | SOT23  | 45  | 200  | 220 ... 475 | 2   | 5  |
| ▼ BC 860BF       | 3k*    | SP000013002 | TSFP-3 | 45  | 200  | 220 ... 475 | 2   | 5  |
| BC 860BW         | 3k*    | SP000010680 | SOT323 | 45  | 200  | 220 ... 475 | 2   | 5  |
| ▼ BC 860C        | 9x10k* | SP000223946 | SOT23  | 45  | 200  | 420 ... 800 | 2   | 5  |
| ▼ BC 860C        | 10x3k* | SP000223901 | SOT23  | 45  | 200  | 420 ... 800 | 2   | 5  |
| BC 860CW         | 3k*    | SP000010681 | SOT323 | 45  | 200  | 420 ... 800 | 2   | 5  |
| BCW 61A          | 3k*    | SP000010621 | SOT23  | 32  | 200  | 120 ... 220 | 2   | 5  |
| BCW 61B          | 3k*    | SP000010629 | SOT23  | 32  | 200  | 180 ... 310 | 2   | 5  |
| BCW 61C          | 3k*    | SP000010622 | SOT23  | 32  | 200  | 250 ... 460 | 2   | 5  |
| BCW 61D          | 3k*    | SP000010627 | SOT23  | 32  | 200  | 380 ... 630 | 2   | 5  |
| BCW 67A          | 3k*    | SP000015036 | SOT23  | 32  | 1000 | 100 ... 250 | 100 | 1  |
| BCW 67B          | 3k*    | SP000015035 | SOT23  | 32  | 1000 | 160 ... 400 | 100 | 1  |
| BCW 67C          | 3k*    | SP000015037 | SOT23  | 32  | 1000 | 250 ... 630 | 100 | 1  |
| BCW 68F          | 3k*    | SP000015041 | SOT23  | 45  | 1000 | 100 ... 250 | 100 | 1  |
| BCW 68G          | 3k*    | SP000015039 | SOT23  | 45  | 1000 | 160 ... 400 | 100 | 1  |
| BCW 68H          | 3k*    | SP000015040 | SOT23  | 45  | 1000 | 250 ... 630 | 100 | 1  |
| BCX 42           | 3k*    | SP000010900 | SOT23  | 125 | 1000 | ≥ 63        | 100 | 1  |
| BCX 42           | 10k*   | SP000010902 | SOT23  | 125 | 1000 | ≥ 63        | 100 | 1  |
| BCX 71G          | 3k*    | SP000010623 | SOT23  | 45  | 200  | 120 ... 220 | 2   | 5  |
| BCX 71H          | 3k*    | SP000010631 | SOT23  | 45  | 200  | 180 ... 310 | 2   | 5  |
| BCX 71J          | 3k*    | SP000010625 | SOT23  | 45  | 200  | 250 ... 460 | 2   | 5  |
| BCX 71J          | 10k*   | SP000010647 | SOT23  | 45  | 200  | 250 ... 460 | 2   | 5  |
| BCX 71K          | 3k*    | SP000010632 | SOT23  | 45  | 200  | 380 ... 630 | 2   | 5  |
| BDP 948          | 1k*    | SP000010938 | SOT223 | 45  | 5000 | 40 ... 475  | 500 | 1  |
| BDP 948          | 4k*    | SP000010943 | SOT223 | 45  | 5000 | 40 ... 475  | 500 | 1  |
| BDP 950          | 1k*    | SP000010939 | SOT223 | 60  | 5000 | 40 ... 475  | 500 | 1  |
| BDP 954          | 1k*    | SP000010941 | SOT223 | 100 | 5000 | 40 ... 475  | 500 | 1  |
| ■ SMBT 2907A     | 3k*    | SP000011181 | SOT23  | 60  | 600  | 100 ... 300 | 150 | 10 |
| ▼ MMBT 2907A     | 3k*    | SP000011179 | SOT23  | 60  | 600  | 100 ... 300 | 150 | 10 |
| ■ SMBT 3906      | 3k*    | SP000011680 | SOT23  | 40  | 200  | 100 ... 300 | 10  | 1  |
| ▼ SMBT 3906      | 3k*    | SP000084312 | SOT23  | 40  | 200  | 100 ... 300 | 10  | 1  |
| SMBT 3906 E-6767 | 3k*    | SP000011677 | SOT23  | 40  | 200  | 100 ... 300 | 10  | 1  |
| ▼ SMBT 3906      | 9x10k* | SP000223948 | SOT23  | 40  | 200  | 100 ... 300 | 10  | 1  |
| ▼ SMBT 3906      | 10x3k* | SP000223858 | SOT23  | 40  | 200  | 100 ... 300 | 10  | 1  |
| ▼ MMBT 3906      | 3k*    | SP000011678 | SOT23  | 40  | 200  | 100 ... 300 | 10  | 1  |
| SMBTA 56         | 3k*    | SP000011692 | SOT23  | 80  | 500  | ≥ 100       | 100 | 1  |
| ▼ MMBTA 56       | 3k*    | SP000011691 | SOT23  | 80  | 500  | ≥ 100       | 100 | 1  |
| SMBTA 56         | 10k*   | SP000011695 | SOT23  | 80  | 500  | ≥ 100       | 100 | 1  |

\* Order unit

SMD = Surface Mounted Device

## Silicon Discrete Components

| Type | Ordering Code | Package | Maximum Ratings |                 |       |           | Resistance Values |            |
|------|---------------|---------|-----------------|-----------------|-------|-----------|-------------------|------------|
|      |               |         | $V_{CEO}$       | $V_{I(on) max}$ | $I_C$ | $P_{tot}$ | $R_1$             | $R_2$      |
|      |               |         | V               | V               | mA    | mW        | k $\Omega$        | k $\Omega$ |

### AF Transistors

#### PNP Digital Transistors (8 mm Tape)

|            |        |             |          |    |    |     |     |     |     |
|------------|--------|-------------|----------|----|----|-----|-----|-----|-----|
| BCR 151F   | 3k*    | SP000014863 | TSFP-3   | 50 | 50 | 50  | 250 | 100 | 100 |
| BCR 151L3  | 15k*   | SP000014865 | TSLP-3-4 | 50 | 50 | 50  | 250 | 100 | 100 |
| BCR 151T   | 3k*    | SP000014815 | SC75     | 50 | 50 | 50  | 250 | 100 | 100 |
| BCR 153F   | 3k*    | SP000014444 | TSFP-3   | 50 | 10 | 100 | 250 | 2.2 | 2.2 |
| BCR 153L3  | 15k*   | SP000014866 | TSLP-3-4 | 50 | 10 | 100 | 250 | 2.2 | 2.2 |
| BCR 153T   | 3k*    | SP000014764 | SC75     | 50 | 10 | 100 | 250 | 2.2 | 2.2 |
| BCR 158    | 3k*    | SP000010784 | SOT23    | 50 | 10 | 100 | 200 | 2.2 | 47  |
| ▼ BCR 158  | 10x3k* | SP000056353 | SOT23    | 50 | 10 | 100 | 200 | 2.2 | 47  |
| BCR 158F   | 3k*    | SP000013053 | TSFP-3   | 50 | 10 | 100 | 250 | 2.2 | 47  |
| BCR 158L3  | 15k*   | SP000014867 | TSLP-3-4 | 50 | 10 | 100 | 250 | 2.2 | 47  |
| BCR 158T   | 3k*    | SP000012806 | SC75     | 50 | 10 | 100 | 250 | 2.2 | 47  |
| BCR 158W   | 3k*    | SP000012761 | SOT323   | 50 | 10 | 100 | 250 | 2.2 | 47  |
| ▼ BCR 158W | 10x3k* | SP000056347 | SOT323   | 50 | 10 | 100 | 250 | 2.2 | 47  |
| BCR 162    | 3k*    | SP000010785 | SOT23    | 50 | 15 | 100 | 200 | 4.7 | 4.7 |
| ▼ BCR 162  | 10x3k* | SP000056352 | SOT23    | 50 | 15 | 100 | 200 | 4.7 | 4.7 |
| BCR 162F   | 3k*    | SP000014445 | TSFP-3   | 50 | 15 | 100 | 250 | 4.7 | 4.7 |
| BCR 162L3  | 15k*   | SP000014868 | TSLP-3-4 | 50 | 15 | 100 | 250 | 4.7 | 4.7 |
| BCR 162T   | 3k*    | SP000012545 | SC75     | 50 | 15 | 100 | 250 | 4.7 | 4.7 |
| BCR 164F   | 3k*    | SP000014864 | TSFP-3   | 50 | 15 | 100 | 250 | 4.7 | 10  |
| BCR 164L3  | 15k*   | SP000014869 | TSLP-3-4 | 50 | 15 | 100 | 250 | 4.7 | 10  |
| BCR 164T   | 3k*    | SP000014817 | SC75     | 50 | 15 | 100 | 250 | 4.7 | 10  |
| BCR 166    | 3k*    | SP000010788 | SOT23    | 50 | 15 | 100 | 200 | 4.7 | 47  |
| BCR 166    | 10k*   | SP000010791 | SOT23    | 50 | 15 | 100 | 200 | 4.7 | 47  |
| ▼ BCR 166  | 10x3k* | SP000056344 | SOT23    | 50 | 15 | 100 | 200 | 4.7 | 47  |
| BCR 166F   | 3k*    | SP000014446 | TSFP-3   | 50 | 15 | 100 | 250 | 4.7 | 47  |
| BCR 166L3  | 15k*   | SP000014870 | TSLP-3-4 | 50 | 15 | 100 | 250 | 4.7 | 47  |
| BCR 166T   | 3k*    | SP000014766 | SC75     | 50 | 15 | 100 | 250 | 4.7 | 47  |
| BCR 166W   | 3k*    | SP000012875 | SOT323   | 50 | 15 | 100 | 250 | 4.7 | 47  |
| BCR 169    | 3k*    | SP000010793 | SOT23    | 50 | 15 | 100 | 200 | 4.7 | —   |
| BCR 169F   | 3k*    | SP000014447 | TSFP-3   | 50 | 15 | 100 | 250 | 4.7 | —   |
| BCR 169L3  | 15k*   | SP000014871 | TSLP-3-4 | 50 | 15 | 100 | 250 | 4.7 | —   |
| BCR 169T   | 3k*    | SP000014767 | SC75     | 50 | 15 | 100 | 250 | 4.7 | —   |
| BCR 169W   | 3k*    | SP000012271 | SOT323   | 50 | 15 | 100 | 250 | 4.7 | —   |
| BCR 179F   | 3k*    | SP000014791 | TSFP-3   | 50 | 20 | 100 | 250 | 10  | —   |
| BCR 179L3  | 15k*   | SP000014872 | TSLP-3-4 | 50 | 20 | 100 | 250 | 10  | —   |
| BCR 179T   | 3k*    | SP000014768 | SC75     | 50 | 20 | 100 | 250 | 10  | —   |
| ■ BCR 183  | 3k*    | SP000010794 | SOT23    | 50 | 20 | 100 | 200 | 10  | 10  |
| BCR 183    | 10k*   | SP000010796 | SOT23    | 50 | 20 | 100 | 200 | 10  | 10  |
| ▼ BCR 183  | 10x3k* | SP000057461 | SOT23    | 50 | 20 | 100 | 200 | 10  | 10  |
| BCR 183F   | 3k*    | SP000012994 | TSFP-3   | 50 | 20 | 100 | 250 | 10  | 10  |
| BCR 183L3  | 15k*   | SP000013565 | TSLP-3-4 | 50 | 20 | 100 | 250 | 10  | 10  |
| BCR 183T   | 3k*    | SP000012807 | SC75     | 50 | 20 | 100 | 250 | 10  | 10  |
| BCR 183W   | 3k*    | SP000010805 | SOT323   | 50 | 20 | 100 | 250 | 10  | 10  |
| ■ BCR 185  | 3k*    | SP000010806 | SOT23    | 50 | 20 | 100 | 200 | 10  | 47  |
| ▼ BCR 185  | 10k*   | SP000010807 | SOT23    | 50 | 20 | 100 | 200 | 10  | 47  |

\* Order unit

SMD = Surface Mounted Device

# Silicon Discrete Components

| Type | Ordering Code | Package | Maximum Ratings |                 |       |           | Resistance Values |            |
|------|---------------|---------|-----------------|-----------------|-------|-----------|-------------------|------------|
|      |               |         | $V_{CEO}$       | $V_{I(on) max}$ | $I_C$ | $P_{tot}$ | $R_1$             | $R_2$      |
|      |               |         | V               | V               | mA    | mW        | k $\Omega$        | k $\Omega$ |

## AF Transistors

### PNP Digital Transistors (8 mm Tape)

(cont'd)

|           |        |             |          |    |    |     |     |     |     |
|-----------|--------|-------------|----------|----|----|-----|-----|-----|-----|
| BCR 185F  | 3k*    | SP000013054 | TSFP-3   | 50 | 20 | 100 | 250 | 10  | 47  |
| BCR 185L3 | 15k*   | SP000014873 | TSFP-3-4 | 50 | 20 | 100 | 250 | 10  | 47  |
| BCR 185T  | 3k*    | SP000014106 | SC75     | 50 | 20 | 100 | 250 | 10  | 47  |
| BCR 185W  | 3k*    | SP000010808 | SOT323   | 50 | 20 | 100 | 250 | 10  | 47  |
| BCR 189F  | 3k*    | SP000014448 | TSFP-3   | 50 | 30 | 100 | 250 | 22  | —   |
| BCR 189L3 | 15k*   | SP000014874 | TSFP-3-4 | 50 | 30 | 100 | 250 | 22  | —   |
| BCR 189T  | 3k*    | SP000014818 | SC75     | 50 | 30 | 100 | 250 | 22  | —   |
| ■ BCR 191 | 3k*    | SP000010810 | SOT23    | 50 | 30 | 100 | 200 | 22  | 22  |
| BCR 191F  | 3k*    | SP000014065 | TSFP-3   | 50 | 30 | 100 | 250 | 22  | 22  |
| BCR 191L3 | 15k*   | SP000014875 | TSFP-3-4 | 50 | 30 | 100 | 250 | 22  | 22  |
| BCR 191T  | 3k*    | SP000014789 | SC75     | 50 | 30 | 100 | 250 | 22  | 22  |
| BCR 191W  | 3k*    | SP000012275 | SOT323   | 50 | 30 | 100 | 250 | 22  | 22  |
| BCR 192   | 3k*    | SP000010812 | SOT23    | 50 | 30 | 100 | 200 | 22  | 47  |
| ▼ BCR 192 | 10x3k* | SP000056349 | SOT23    | 50 | 30 | 100 | 200 | 22  | 47  |
| BCR 192F  | 3k*    | SP000014066 | TSFP-3   | 50 | 30 | 100 | 250 | 22  | 47  |
| BCR 192L3 | 15k*   | SP000014876 | TSFP-3-4 | 50 | 30 | 100 | 250 | 22  | 47  |
| BCR 192T  | 3k*    | SP000012808 | SC75     | 50 | 30 | 100 | 250 | 22  | 47  |
| BCR 192W  | 3k*    | SP000010816 | SOT323   | 50 | 30 | 100 | 250 | 22  | 47  |
| BCR 196   | 3k*    | SP000014762 | SOT23    | 50 | 50 | 70  | 250 | 47  | 22  |
| BCR 196F  | 3k*    | SP000014449 | TSFP-3   | 50 | 50 | 70  | 250 | 47  | 22  |
| BCR 196L3 | 15k*   | SP000014877 | TSFP-3-4 | 50 | 50 | 70  | 250 | 47  | 22  |
| BCR 196T  | 3k*    | SP000014765 | SC75     | 50 | 50 | 70  | 250 | 47  | 22  |
| BCR 196W  | 3k*    | SP000018040 | SOT323   | 50 | 50 | 70  | 250 | 47  | 22  |
| ■ BCR 198 | 3k*    | SP000010817 | SOT23    | 50 | 50 | 70  | 200 | 47  | 47  |
| ▼ BCR 198 | 10k*   | SP000010820 | SOT23    | 50 | 50 | 70  | 200 | 47  | 47  |
| ▼ BCR 198 | 10x3k* | SP000056350 | SOT23    | 50 | 50 | 70  | 200 | 47  | 47  |
| BCR 198F  | 3k*    | SP000013055 | TSFP-3   | 50 | 50 | 70  | 250 | 47  | 47  |
| BCR 198L3 | 15k*   | SP000014878 | TSFP-3-4 | 50 | 50 | 70  | 250 | 47  | 47  |
| BCR 198T  | 3k*    | SP000013045 | SC75     | 50 | 50 | 70  | 250 | 47  | 47  |
| BCR 198W  | 3k*    | SP000010824 | SOT323   | 50 | 50 | 70  | 250 | 47  | 47  |
| BCR 199F  | 3k*    | SP000014879 | TSFP-3   | 50 | 50 | 70  | 250 | 47  | —   |
| BCR 199L3 | 15k*   | SP000014880 | TSFP-3-4 | 50 | 50 | 70  | 250 | 47  | —   |
| BCR 199T  | 3k*    | SP000014816 | SC75     | 50 | 50 | 70  | 250 | 47  | —   |
| BCR 553   | 3k*    | SP000010854 | SOT23    | 50 | 12 | 500 | 330 | 2.2 | 2.2 |
| BCR 555   | 3k*    | SP000010855 | SOT23    | 50 | 10 | 500 | 330 | 2.2 | 10  |
| BCR 555   | 10k*   | SP000010857 | SOT23    | 50 | 10 | 500 | 330 | 2.2 | 10  |
| BCR 562   | 3k*    | SP000010859 | SOT23    | 50 | 30 | 500 | 330 | 4.7 | 4.7 |
| ▼ BCR 569 | 3k*    | SP000015053 | SOT23    | 50 | 30 | 500 | 330 | 4.7 | —   |
| BCR 573   | 3k*    | SP000010861 | SOT23    | 50 | 12 | 500 | 330 | 1   | 10  |
| ▼ BCR 573 | 10k*   | SP000010860 | SOT23    | 50 | 12 | 500 | 330 | 1   | 10  |
| BCR 583   | 3k*    | SP000012278 | SOT23    | 50 | 20 | 500 | 330 | 10  | 10  |

\* Order unit

SMD = Surface Mounted Device

## Silicon Discrete Components

| Type | Ordering Code | Package | Maximum Ratings |            |          |           |
|------|---------------|---------|-----------------|------------|----------|-----------|
|      |               |         | $V_{CC}$        | $V_{drop}$ | at $I_d$ | $P_{tot}$ |
|      |               |         | V               | V          | mA       | mW        |

### Monolithic ICs

#### LED Driver (8 mm Tape)

|          |     |             |        |    |     |    |     |
|----------|-----|-------------|--------|----|-----|----|-----|
| BCR 401R | 3k* | SP000013678 | SOT143 | 18 | 75  | 10 | 330 |
| BCR 402R | 3k* | SP000013057 | SOT143 | 18 | 75  | 20 | 330 |
| BCR 402U | 3k* | SP000013482 | SC74   | 40 | 0.8 | 20 | 500 |
| BCR 405U | 3k* | SP000013481 | SC74   | 40 | 0.8 | 20 | 500 |

#### SSICs Active Bias Controller (8 mm Tape)

|          |     |             |        |    |      |     |     |
|----------|-----|-------------|--------|----|------|-----|-----|
| BCR 400W | 3k* | SP000010834 | SOT343 | 18 | 0.65 | 1   | 330 |
| BCR 410W | 3k* | SP000012946 | SOT343 | 18 | 0.11 | 0.2 | 100 |

| Type | Ordering Code | Package | Maximum Ratings |          | Characteristics<br>( $T_A = 25^\circ\text{C}$ ) |          |          |
|------|---------------|---------|-----------------|----------|-------------------------------------------------|----------|----------|
|      |               |         | $V_{CEO}$       | $I_{CM}$ | $h_{FE}$                                        | at $I_C$ | $V_{CE}$ |
|      |               |         | V               | mA       |                                                 | mA       | V        |

### AF Transistors

#### PNP Transistors (12 mm Tape)

|             |     |             |        |     |      |             |     |   |
|-------------|-----|-------------|--------|-----|------|-------------|-----|---|
| BCP 51      | 1k* | SP000010692 | SOT223 | 45  | 1500 | 40 ... 250  | 150 | 2 |
| ▼ BCP 51-10 | 1k* | SP000010693 | SOT223 | 45  | 1500 | 63 ... 160  | 150 | 2 |
| BCP 51-16   | 1k* | SP000010694 | SOT223 | 45  | 1500 | 100 ... 250 | 150 | 2 |
| BCP 51-16   | 4k* | SP000010703 | SOT223 | 45  | 1500 | 100 ... 250 | 150 | 2 |
| BCP 52-16   | 1k* | SP000010696 | SOT223 | 60  | 1500 | 100 ... 250 | 150 | 2 |
| BCP 53-10   | 1k* | SP000010697 | SOT223 | 100 | 1500 | 63 ... 160  | 150 | 2 |
| BCP 53-16   | 1k* | SP000010698 | SOT223 | 100 | 1500 | 100 ... 250 | 150 | 2 |
| ▼ BCP 53-16 | 4k* | SP000010702 | SOT223 | 100 | 1500 | 100 ... 250 | 150 | 2 |
| BCP 69-16   | 1k* | SP000015153 | SOT223 | 20  | 2000 | 100 ... 250 | 500 | 1 |
| BCP 69-25   | 1k* | SP000015154 | SOT223 | 20  | 2000 | 160 ... 375 | 500 | 1 |
| ▼ BCP 69 US | 3k* | SP000013957 | SC74   | 20  | 1000 | 100 ... 250 | 500 | 1 |
| BCX 51      | 1k* | SP000014826 | SOT89  | 45  | 1500 | 40 ... 250  | 150 | 2 |
| ▼ BCX 51-10 | 1k* | SP000014825 | SOT89  | 45  | 1500 | 63 ... 160  | 150 | 2 |
| BCX 51-16   | 1k* | SP000014827 | SOT89  | 45  | 1500 | 100 ... 250 | 150 | 2 |
| BCX 52      | 1k* | SP000014828 | SOT89  | 60  | 1500 | 40 ... 250  | 150 | 2 |
| BCX 52-16   | 1k* | SP000014830 | SOT89  | 60  | 1500 | 100 ... 250 | 150 | 2 |
| BCX 53      | 1k* | SP000010906 | SOT89  | 80  | 1500 | 40 ... 250  | 150 | 2 |
| BCX 53-10   | 1k* | SP000010908 | SOT89  | 80  | 1500 | 63 ... 160  | 150 | 2 |
| BCX 53-16   | 1k* | SP000010907 | SOT89  | 80  | 1500 | 100 ... 250 | 150 | 2 |
| BCX 53-16   | 4k* | SP000010909 | SOT89  | 80  | 1500 | 100 ... 250 | 150 | 2 |
| BCX 69-10   | 1k* | SP000010928 | SOT89  | 20  | 2000 | 85 ... 160  | 500 | 1 |
| BCX 69-16   | 1k* | SP000010929 | SOT89  | 20  | 2000 | 100 ... 250 | 500 | 1 |
| BCX 69-25   | 1k* | SP000010930 | SOT89  | 20  | 2000 | 160 ... 375 | 500 | 1 |

\* Order unit

SMD = Surface Mounted Device

## Silicon Discrete Components

| Type | Ordering Code | Package | Maximum Ratings  |                 | Characteristics<br>( $T_A = 25^\circ\text{C}$ ) |                 |    |                |                 |
|------|---------------|---------|------------------|-----------------|-------------------------------------------------|-----------------|----|----------------|-----------------|
|      |               |         | $V_{\text{CEO}}$ | $I_{\text{CM}}$ | $f_T$                                           | $h_{\text{FE}}$ | at | $I_{\text{C}}$ | $V_{\text{CE}}$ |
|      |               |         | V                | mA              | MHz                                             |                 |    | mA             | V               |

### AF Transistors

#### NPN Darlington Transistors (8 mm Tape)

|            |      |             |       |    |     |            |              |     |   |
|------------|------|-------------|-------|----|-----|------------|--------------|-----|---|
| BCV 27     | 3k*  | SP000010865 | SOT23 | 30 | 800 | 170        | $\geq 20000$ | 100 | 5 |
| ▼ BCV 27   | 10k* | SP000010869 | SOT23 | 30 | 800 | 170        | $\geq 20000$ | 100 | 5 |
| BCV 47     | 3k*  | SP000010866 | SOT23 | 60 | 800 | 170        | $\geq 10000$ | 100 | 5 |
| ▼ BCV 47   | 10k* | SP000010864 | SOT23 | 60 | 800 | 170        | $\geq 10000$ | 100 | 5 |
| SMBTA 14   | 3k*  | SP000010872 | SOT23 | 30 | 500 | $\geq 125$ | $\geq 20000$ | 100 | 5 |
| ▼ MMBTA 14 | 3k*  | SP000010862 | SOT23 | 30 | 500 | $\geq 125$ | $\geq 20000$ | 100 | 5 |

#### PNP Darlington Transistors (8 mm Tape)

|        |     |             |       |    |     |     |              |     |   |
|--------|-----|-------------|-------|----|-----|-----|--------------|-----|---|
| BCV 26 | 3k* | SP000010874 | SOT23 | 30 | 500 | 200 | $\geq 20000$ | 100 | 5 |
| BCV 46 | 3k* | SP000010873 | SOT23 | 60 | 500 | 170 | $\geq 10000$ | 100 | 5 |

#### NPN Darlington Transistors (12 mm Tape)

|         |     |             |        |    |      |            |              |     |    |
|---------|-----|-------------|--------|----|------|------------|--------------|-----|----|
| BCP 49  | 1k* | SP000010685 | SOT223 | 60 | 800  | 200        | $\geq 10000$ | 100 | 5  |
| BCV 29  | 1k* | SP000010883 | SOT89  | 30 | 800  | 150        | $\geq 20000$ | 100 | 5  |
| BCV 49  | 1k* | SP000010882 | SOT89  | 60 | 800  | 150        | $\geq 10000$ | 100 | 5  |
| BSP 50  | 1k* | SP000011126 | SOT223 | 45 | 2000 | 200        | $\geq 2000$  | 500 | 10 |
| BSP 51  | 1k* | SP000011127 | SOT223 | 60 | 2000 | 200        | $\geq 2000$  | 500 | 10 |
| BSP 52  | 1k* | SP000011128 | SOT223 | 80 | 2000 | 200        | $\geq 2000$  | 500 | 10 |
| PZTA 14 | 1k* | SP000010688 | SOT223 | 30 | 500  | $\geq 125$ | $\geq 20000$ | 100 | 5  |
| PZTA 14 | 4k* | SP000010689 | SOT223 | 30 | 500  | $\geq 125$ | $\geq 20000$ | 100 | 5  |

#### PNP Darlington Transistors (12 mm Tape)

|          |     |             |        |    |      |     |              |     |    |
|----------|-----|-------------|--------|----|------|-----|--------------|-----|----|
| BCV 28   | 1k* | SP000010879 | SOT89  | 30 | 800  | 200 | $\geq 20000$ | 100 | 5  |
| BCV 48   | 1k* | SP000010880 | SOT89  | 60 | 800  | 200 | $\geq 10000$ | 100 | 5  |
| BSP 60   | 1k* | SP000011131 | SOT223 | 45 | 2000 | 200 | $\geq 2000$  | 500 | 10 |
| ▼ BSP 60 | 4k* | SP000011135 | SOT223 | 45 | 2000 | 200 | $\geq 2000$  | 500 | 10 |
| BSP 61   | 1k* | SP000011132 | SOT223 | 60 | 2000 | 200 | $\geq 2000$  | 500 | 10 |
| BSP 62   | 1k* | SP000011133 | SOT223 | 80 | 2000 | 200 | $\geq 2000$  | 500 | 10 |

\* Order unit

SMD = Surface Mounted Device

## Silicon Discrete Components

| Type | Ordering Code | Package | Maximum Ratings       |                       | Characteristics<br>( $T_A = 25^\circ\text{C}$ ) |                 |    |             |                      |
|------|---------------|---------|-----------------------|-----------------------|-------------------------------------------------|-----------------|----|-------------|----------------------|
|      |               |         | $V_{\text{CEO}}$<br>V | $I_{\text{CM}}$<br>mA | $f_T$<br>MHz                                    | $h_{\text{FE}}$ | at | $I_C$<br>mA | $V_{\text{CE}}$<br>V |

### AF Transistors

#### NPN High Voltage Transistors (8 mm Tape)

|            |      |             |       |     |     |    |           |    |    |
|------------|------|-------------|-------|-----|-----|----|-----------|----|----|
| BFN 24     | 3k*  | SP000014784 | SOT23 | 250 | 500 | 70 | $\geq 40$ | 30 | 10 |
| BFN 26     | 3k*  | SP000014785 | SOT23 | 300 | 500 | 70 | $\geq 30$ | 30 | 10 |
| BFN 26     | 10k* | SP000014786 | SOT23 | 300 | 500 | 70 | $\geq 30$ | 30 | 10 |
| SMBTA 42   | 3k*  | SP000011000 | SOT23 | 300 | 500 | 70 | $\geq 40$ | 30 | 10 |
| ▼ MMBTA 42 | 3k*  | SP000010999 | SOT23 | 300 | 500 | 70 | $\geq 40$ | 30 | 10 |
| SMBTA 42   | 10k* | SP000011001 | SOT23 | 300 | 500 | 70 | $\geq 40$ | 30 | 10 |

#### PNP High Voltage Transistors (8 mm Tape)

|            |      |             |        |     |     |     |           |    |    |
|------------|------|-------------|--------|-----|-----|-----|-----------|----|----|
| BFN 27     | 3k*  | SP000014782 | SOT23  | 300 | 500 | 100 | $\geq 30$ | 30 | 10 |
| SMBTA 92   | 3k*  | SP000011004 | SOT23  | 300 | 500 | 100 | $\geq 25$ | 30 | 10 |
| ▼ MMBTA 92 | 3k*  | SP000011002 | SOT23  | 300 | 500 | 100 | $\geq 25$ | 30 | 10 |
| SMBTA 92   | 10k* | SP000011005 | SOT23  | 300 | 500 | 100 | $\geq 25$ | 30 | 10 |
| ▼ PZTA 92  | 1k*  | SP000011008 | SOT223 | 300 | 500 | 100 | $\geq 25$ | 30 | 10 |
| ▼ PZTA 92  | 4k*  | SP000011009 | SOT223 | 300 | 500 | 100 | $\geq 25$ | 30 | 10 |

#### NPN High Voltage Transistors (12 mm Tape)

|         |     |             |        |     |     |    |           |    |    |
|---------|-----|-------------|--------|-----|-----|----|-----------|----|----|
| BFN 18  | 1k* | SP000010997 | SOT89  | 300 | 500 | 70 | $\geq 30$ | 30 | 10 |
| BFN 38  | 1k* | SP000011006 | SOT223 | 300 | 500 | 70 | $\geq 30$ | 30 | 10 |
| PZTA 42 | 1k* | SP000014780 | SOT223 | 300 | 500 | 70 | $\geq 40$ | 30 | 10 |

#### PNP High Voltage Transistors (12 mm Tape)

|        |     |             |        |     |     |     |           |    |    |
|--------|-----|-------------|--------|-----|-----|-----|-----------|----|----|
| BFN 19 | 1k* | SP000010998 | SOT89  | 300 | 500 | 100 | $\geq 30$ | 30 | 10 |
| BFN 39 | 1k* | SP000014781 | SOT223 | 300 | 500 | 100 | $\geq 30$ | 30 | 10 |

\* Order unit

SMD = Surface Mounted Device

## Silicon Discrete Components

| Type | Ordering Code | Package | Maximum Ratings |                 |       |           | Resistance Values |            |
|------|---------------|---------|-----------------|-----------------|-------|-----------|-------------------|------------|
|      |               |         | $V_{CEO}$       | $V_{I(on) max}$ | $I_C$ | $P_{tot}$ | $R_1$             | $R_2$      |
|      |               |         | V               | V               | mA    | mW        | k $\Omega$        | k $\Omega$ |

### AF Transistors

#### Dual Digital Transistor Arrays NPN/PNP (8 mm Tape)

|            |        |             |        |    |       |     |     |        |       |
|------------|--------|-------------|--------|----|-------|-----|-----|--------|-------|
| BCR 08PN   | 3k*    | SP000010727 | SOT363 | 50 | 50    | 100 | 250 | 2.2    | 47    |
| ▼ BCR 08PN | 10k*   | SP000083564 | SOT363 | 50 | 50    | 100 | 250 | 2.2    | 47    |
| ▼ BCR 08PN | 10x3k* | SP000010726 | SOT363 | 50 | 50    | 100 | 250 | 2.2    | 47    |
| BCR 10PN   | 3k*    | SP000010732 | SOT363 | 50 | 25    | 100 | 250 | 10     | 10    |
| ▼ BCR 10PN | 10x3k* | SP000010731 | SOT363 | 50 | 25    | 100 | 250 | 10     | 10    |
| BCR 22PN   | 3k*    | SP000010826 | SOT363 | 50 | 30    | 100 | 250 | 22     | 22    |
| BCR 22PN   | 10k*   | SP000010827 | SOT363 | 50 | 30    | 100 | 250 | 22     | 22    |
| BCR 35PN   | 3k*    | SP000010831 | SOT363 | 50 | 20    | 100 | 250 | 10     | 47    |
| BCR 35PN   | 10k*   | SP000010832 | SOT363 | 50 | 20    | 100 | 250 | 10     | 47    |
| BCR 48PN   | 3k*    | SP000010836 | SOT363 | 50 | 50/10 | 100 | 250 | 47/2.2 | 47/47 |
| ▼ BCR 48PN | 10k*   | SP000010837 | SOT363 | 50 | 50/10 | 100 | 250 | 47/2.2 | 47/47 |

#### Dual Digital Transistor Arrays NPN (8 mm Tape)

|            |        |             |        |    |    |     |     |     |    |
|------------|--------|-------------|--------|----|----|-----|-----|-----|----|
| BCR 108S   | 3k*    | SP000010743 | SOT363 | 50 | 10 | 100 | 250 | 2.2 | 47 |
| BCR 108S   | 10k*   | SP000010740 | SOT363 | 50 | 10 | 100 | 250 | 2.2 | 47 |
| BCR 116S   | 3k*    | SP000012266 | SOT363 | 50 | 15 | 100 | 250 | 4.7 | 47 |
| BCR 119S   | 3k*    | SP000012331 | SOT363 | 50 | 15 | 100 | 250 | 4.7 | –  |
| BCR 119S   | 10k*   | SP000012332 | SOT363 | 50 | 15 | 100 | 250 | 4.7 | –  |
| BCR 129S   | 3k*    | SP000010755 | SOT363 | 50 | 20 | 100 | 250 | 10  | –  |
| BCR 133S   | 3k*    | SP000010761 | SOT363 | 50 | 20 | 100 | 250 | 10  | 10 |
| ▼ BCR 133S | 10x3k* | SP000056343 | SOT363 | 50 | 20 | 100 | 250 | 10  | 10 |
| BCR 133S   | 10k*   | SP000010763 | SOT363 | 50 | 20 | 100 | 250 | 10  | 10 |
| BCR 135S   | 3k*    | SP000012335 | SOT363 | 50 | 20 | 100 | 250 | 10  | 47 |
| BCR 141S   | 3k*    | SP000012336 | SOT363 | 50 | 30 | 100 | 250 | 22  | 22 |
| BCR 148S   | 3k*    | SP000012338 | SOT363 | 50 | 50 | 70  | 250 | 47  | 47 |
| BCR 148S   | 10k*   | SP000012339 | SOT363 | 50 | 50 | 70  | 250 | 47  | 47 |
| BCR 169S   | 3k*    | SP000012272 | SOT363 | 50 | 15 | 100 | 250 | 4.7 | –  |
| BCR 183S   | 3k*    | SP000010802 | SOT363 | 50 | 20 | 100 | 250 | 10  | 10 |
| BCR 183S   | 10k*   | SP000010804 | SOT363 | 50 | 20 | 100 | 250 | 10  | 10 |
| BCR 185S   | 3k*    | SP000012273 | SOT363 | 50 | 20 | 100 | 250 | 10  | 47 |
| ▼ BCR 185S | 10x3k* | SP000056342 | SOT363 | 50 | 20 | 100 | 250 | 10  | 47 |
| BCR 198S   | 3k*    | SP000010822 | SOT363 | 50 | 50 | 70  | 250 | 47  | 47 |
| BCR 523U   | 3k*    | SP000013381 | SC74   | 50 | 12 | 500 | 330 | 1.0 | 10 |

\* Order unit

SMD = Surface Mounted Device

# Silicon Discrete Components

| Type | Ordering Code | Package | Maximum Ratings |          | Characteristics<br>( $T_A = 25^\circ\text{C}$ ) |          |    |       |          |
|------|---------------|---------|-----------------|----------|-------------------------------------------------|----------|----|-------|----------|
|      |               |         | $V_{CE0}$       | $I_{CM}$ | $f_T$                                           | $h_{FE}$ | at | $I_C$ | $V_{CE}$ |
|      |               |         | V               | mA       | MHz                                             |          |    | mA    | V        |

## AF Transistors

### NPN Double Transistors (8 mm Tape)

|         |     |             |        |    |     |     |             |     |   |
|---------|-----|-------------|--------|----|-----|-----|-------------|-----|---|
| BCV 61A | 3k* | SP000010885 | SOT143 | 30 | 200 | 250 | 110 ... 220 | 100 | 5 |
| BCV 61B | 3k* | SP000010886 | SOT143 | 30 | 200 | 250 | 200 ... 450 | 100 | 5 |
| BCV 61C | 3k* | SP000010887 | SOT143 | 30 | 200 | 250 | 420 ... 800 | 100 | 5 |

### PNP Double Transistors (8 mm Tape)

|           |      |             |        |    |     |     |             |     |   |
|-----------|------|-------------|--------|----|-----|-----|-------------|-----|---|
| ■ BCV 62A | 3k*  | SP000010889 | SOT143 | 30 | 200 | 250 | 125 ... 220 | 100 | 5 |
| BCV 62B   | 3k*  | SP000010890 | SOT143 | 30 | 200 | 250 | 220 ... 475 | 100 | 5 |
| BCV 62B   | 10k* | SP000010893 | SOT143 | 30 | 200 | 250 | 220 ... 475 | 100 | 5 |
| BCV 62C   | 3k*  | SP000010891 | SOT143 | 30 | 200 | 250 | 420 ... 800 | 100 | 5 |

### Dual Transistor Arrays NPN/PNP (8 mm Tape)

|              |        |             |        |    |      |     |             |     |   |
|--------------|--------|-------------|--------|----|------|-----|-------------|-----|---|
| BC 817UPN    | 3k*    | SP000012398 | SC74   | 45 | 1000 | 170 | 160 ... 400 | 100 | 1 |
| ▼ BC 817UPN  | 10x3k* | SP000056357 | SC74   | 45 | 1000 | 170 | 160 ... 400 | 100 | 1 |
| BC 846PN     | 3k*    | SP000010518 | SOT363 | 65 | 200  | 250 | 200 ... 450 | 2   | 5 |
| BC 846UPN    | 3k*    | SP000012621 | SC74   | 65 | 200  | 250 | 200 ... 450 | 2   | 5 |
| BC 847PN     | 3k*    | SP000010593 | SOT363 | 45 | 200  | 250 | 110 ... 630 | 2   | 5 |
| ▼ BC 847PN   | 10x3k* | SP000056358 | SOT363 | 45 | 200  | 250 | 110 ... 630 | 2   | 5 |
| BC 847PN     | 10k*   | SP000010594 | SOT363 | 45 | 200  | 250 | 110 ... 630 | 2   | 5 |
| SMBT 3904PN  | 3k*    | SP000014740 | SOT363 | 40 | 200  | 250 | 100 ... 300 | 10  | 1 |
| SMBT 3904UPN | 3k*    | SP000012617 | SC74   | 40 | 200  | 250 | 100 ... 300 | 10  | 1 |
| SMBTA 06UPN  | 3k*    | SP000012393 | SC74   | 80 | 500  | 100 | ≥100        | 10  | 1 |

### Dual Transistor Arrays NPN (8 mm Tape)

|            |      |             |        |    |      |     |             |     |   |
|------------|------|-------------|--------|----|------|-----|-------------|-----|---|
| BC 817U    | 3k*  | SP000012394 | SC74   | 45 | 1000 | 170 | 160 ... 400 | 100 | 1 |
| BC 846S    | 3k*  | SP000010521 | SOT363 | 65 | 200  | 250 | 200 ... 450 | 2   | 5 |
| BC 846S    | 10k* | SP000010522 | SOT363 | 65 | 200  | 250 | 200 ... 450 | 2   | 5 |
| BC 846U    | 3k*  | SP000012619 | SC74   | 65 | 100  | 250 | 200 ... 450 | 2   | 5 |
| BC 847S    | 3k*  | SP000010598 | SOT363 | 45 | 200  | 250 | 110 ... 630 | 2   | 5 |
| BC 847S    | 10k* | SP000010599 | SOT363 | 45 | 200  | 250 | 110 ... 630 | 2   | 5 |
| BCM 846S   | 3k*  | SP000013958 | SOT363 | 65 | 200  | 250 | 200 ... 650 | 2   | 5 |
| SMBT 3904S | 3k*  | SP000014737 | SOT363 | 40 | 200  | 250 | 100 ... 300 | 10  | 1 |
| SMBT 3904U | 3k*  | SP000012615 | SC74   | 40 | 200  | 300 | 100 ... 300 | 10  | 1 |

### Dual Transistor Arrays PNP (8 mm Tape)

|            |      |             |        |    |     |     |             |     |   |
|------------|------|-------------|--------|----|-----|-----|-------------|-----|---|
| BC 807U    | 3k*  | SP000012395 | SC74   | 45 | 500 | 200 | 160 ... 400 | 100 | 1 |
| BC 856S    | 3k*  | SP000012942 | SOT363 | 65 | 200 | 250 | 200 ... 475 | 2   | 5 |
| ▼ BC 856S  | 10k* | SP000012941 | SOT363 | 65 | 200 | 250 | 200 ... 475 | 2   | 5 |
| BC 856U    | 3k*  | SP000012620 | SC74   | 65 | 100 | 250 | 200 ... 650 | 2   | 5 |
| BC 857S    | 3k*  | SP000010666 | SOT363 | 45 | 200 | 250 | 200 ... 630 | 2   | 5 |
| BC 857S    | 10k* | SP000010667 | SOT363 | 45 | 200 | 250 | 200 ... 630 | 2   | 5 |
| BCM 856S   | 3k*  | SP000014127 | SOT363 | 65 | 200 | 250 | 200 ... 450 | 2   | 5 |
| SMBT 3906S | 3k*  | SP000016694 | SOT363 | 40 | 200 | 250 | 100 ... 300 | 10  | 1 |
| SMBT 3906U | 3k*  | SP000012616 | SC74   | 40 | 200 | 250 | 100 ... 300 | 10  | 1 |

\* Order unit

SMD = Surface Mounted Device

## Silicon Discrete Components

| Type | Ordering Code | Package | Maximum Ratings |       | Characteristics<br>( $T_A = 25^\circ\text{C}$ ) |    |       |          |    |
|------|---------------|---------|-----------------|-------|-------------------------------------------------|----|-------|----------|----|
|      |               |         | $V_R$           | $I_F$ | $C_T$                                           | at | $V_R$ | $r_f$    | at |
|      |               |         | V               | mA    | pF                                              |    | V     | $\Omega$ | mA |

### RF Diodes

#### Switch Diodes (8 mm Tape)

|           |     |             |        |    |     |      |   |      |   |
|-----------|-----|-------------|--------|----|-----|------|---|------|---|
| BAR 81W   | 3k* | SP000010192 | SOT343 | 30 | 100 | 0.60 | 1 | 0.70 | 5 |
| BAT 18-04 | 3k* | SP000010290 | SOT23  | 35 | 100 | 0.92 | 1 | 0.40 | 5 |
| BAT 18-05 | 3k* | SP000010291 | SOT23  | 35 | 100 | 0.92 | 1 | 0.40 | 5 |

| Type | Ordering Code | Package | Maximum Ratings |       | Characteristics<br>( $T_A = 25^\circ\text{C}$ ) |    |       |
|------|---------------|---------|-----------------|-------|-------------------------------------------------|----|-------|
|      |               |         | $V_R$           | $I_F$ | $V_F$                                           | at | $I_F$ |
|      |               |         | V               | mA    | mV                                              |    | mA    |

#### Schottky Diodes (8 mm Tape)

|                    |      |             |          |    |      |     |     |
|--------------------|------|-------------|----------|----|------|-----|-----|
| BAS 125-04W (Dual) | 3k*  | SP000012255 | SOT323   | 25 | 100  | 385 | 1   |
| BAS 125-05W (Dual) | 3k*  | SP000012256 | SOT323   | 25 | 100  | 385 | 1   |
| BAS 125-06W (Dual) | 3k*  | SP000012257 | SOT323   | 25 | 100  | 385 | 1   |
| BAS 125-07W (Dual) | 3k*  | SP000010198 | SOT343   | 25 | 100  | 385 | 1   |
| BAT 15-02LRH       | 15k* | SP000055124 | TSLP-2-7 | 4  | 110  | 230 | 1   |
| BAT 15-03W         | 3k*  | SP000010272 | SOD323   | 4  | 110  | 230 | 1   |
| BAT 15-04W (Dual)  | 3k*  | SP000012598 | SOT323   | 4  | 110  | 230 | 1   |
| BAT 15-05W (Dual)  | 3k*  | SP000012597 | SOT323   | 4  | 110  | 230 | 1   |
| BAT 15-07LRH       | 15k* | SP000055813 | TSLP-4-7 | 4  | 110  | 230 | 1   |
| BAT 15-098LRH      | 15k* | SP000055342 | TSLP-4-7 | 4  | 110  | 230 | 1   |
| BAT 15-099 (Dual)  | 3k*  | SP000010273 | SOT143   | 4  | 110  | 230 | 1   |
| BAT 15-099 (Dual)  | 10k* | SP000010275 | SOT143   | 4  | 110  | 230 | 1   |
| BAT 15-099LRH      | 15k* | SP000055343 | TSLP-4-7 | 4  | 110  | 230 | 1   |
| BAT 15-099R (Quad) | 3k*  | SP000010276 | SOT143   | —  | 110  | 230 | 1   |
| BAT 17             | 3k*  | SP000010280 | SOT23    | 4  | 130  | 340 | 0.1 |
| BAT 17-04 (Dual)   | 3k*  | SP000010283 | SOT23    | 4  | 130  | 340 | 0.1 |
| BAT 17-04W (Dual)  | 3k*  | SP000012242 | SOT323   | 4  | 130  | 340 | 1   |
| BAT 17-05 (Dual)   | 3k*  | SP000010285 | SOT23    | 4  | 130  | 340 | 0.1 |
| BAT 17-05W (Dual)  | 3k*  | SP000012243 | SOT323   | 4  | 130  | 340 | 1   |
| BAT 17-06W (Dual)  | 3k*  | SP000012244 | SOT323   | 4  | 130  | 340 | 1   |
| BAT 17-07 (Dual)   | 3k*  | SP000010289 | SOT143   | 4  | 130  | 350 | 0.1 |
| BAT 60A            | 3k*  | SP000010294 | SOD323   | 10 | 3000 | 120 | 10  |
| BAT 60B            | 3k*  | SP000010296 | SOD323   | 10 | 3000 | 240 | 10  |
| BAT 60B            | 10k* | SP000010297 | SOD323   | 10 | 3000 | 240 | 10  |
| BAT 68             | 3k*  | SP000012514 | SOT23    | 8  | 130  | 320 | 1   |
| BAT 68-04 (Dual)   | 3k*  | SP000010320 | SOT23    | 8  | 130  | 320 | 1   |
| BAT 68-04W (Dual)  | 3k*  | SP000012246 | SOT323   | 8  | 130  | 320 | 1   |
| BAT 68-06 (Dual)   | 3k*  | SP000010322 | SOT23    | 8  | 130  | 320 | 1   |
| BAT 68-06W (Dual)  | 3k*  | SP000012245 | SOT323   | 8  | 130  | 320 | 1   |
| BAT 68-07W (Dual)  | 3k*  | SP000010324 | SOT343   | 8  | 130  | 320 | 1   |

\* Order unit

SMD = Surface Mounted Device

## Silicon Discrete Components

| Type | Ordering Code | Package | Maximum Ratings |       | Characteristics<br>( $T_A = 25^\circ\text{C}$ ) |          |
|------|---------------|---------|-----------------|-------|-------------------------------------------------|----------|
|      |               |         | $V_R$           | $I_F$ | $V_F$                                           | at $I_F$ |
|      |               |         | V               | mA    | mV                                              | mA       |

### RF Diodes

#### Schottky-Detector Diodes (8 mm Tape)

|                      |      |             |          |    |     |     |   |
|----------------------|------|-------------|----------|----|-----|-----|---|
| BAT 62               | 3k*  | SP000010300 | SOT143   | 40 | 20  | 580 | 2 |
| BAT 62-02L           | 3k*  | SP000016963 | TSLP-2-1 | 40 | 20  | 580 | 2 |
| BAT 62-02W           | 3k*  | SP000010301 | SCD80    | 40 | 20  | 580 | 2 |
| BAT 62-03W           | 3k*  | SP000010303 | SOD323   | 40 | 20  | 580 | 2 |
| BAT 62-07L4 (Dual)   | 15k* | SP000013970 | TSLP-4-4 | 40 | 20  | 580 | 2 |
| ▼ BAT 62-07L4 (Dual) | 50k* | SP000077202 | TSLP-4-4 | 40 | 20  | 580 | 2 |
| BAT 62-07W (Dual)    | 3k*  | SP000010304 | SOT -343 | 40 | 20  | 580 | 2 |
| BAT 62-09S (Dual)    | 3k*  | SP000055207 | SOT363   | 40 | 20  | 580 | 2 |
| BAT 63-07W           | 3k*  | SP000010306 | SOT343   | 3  | 100 | 190 | 1 |

#### Schottky Diodes Arrays

|            |     |             |        |   |     |     |   |
|------------|-----|-------------|--------|---|-----|-----|---|
| BAT 68-08S | 3k* | SP000012460 | SOT363 | 8 | 130 | 318 | 1 |
|------------|-----|-------------|--------|---|-----|-----|---|

| Type | Ordering Code | Package | Maximum Ratings    |                    | Characteristics<br>( $T_A = 25^\circ\text{C}$ ) |          |          |          |
|------|---------------|---------|--------------------|--------------------|-------------------------------------------------|----------|----------|----------|
|      |               |         | $V_{R\text{ max}}$ | $I_{F\text{ max}}$ | $C_T$                                           | at $V_R$ | $r_F$    | at $I_F$ |
|      |               |         | V                  | mA                 | pF                                              | V        | $\Omega$ | mA       |

#### PIN Diodes (8 mm Tape)

|                 |        |             |          |     |     |      |    |      |    |
|-----------------|--------|-------------|----------|-----|-----|------|----|------|----|
| BA 592          | 3k*    | SP000010141 | SOD323   | 35  | 100 | 0.85 | 3  | 0.36 | 10 |
| BA 592          | 10k*   | SP000010142 | SOD323   | 35  | 100 | 0.85 | 3  | 0.36 | 10 |
| ■ BA 595        | 3k*    | SP000010146 | SOD323   | 50  | 50  | 0.26 | 10 | 5.00 | 10 |
| ▼ BA 595        | 10x3k* | SP000095921 | SOD323   | 50  | 50  | 0.26 | 10 | 5.00 | 10 |
| BA 595          | 10k*   | SP000010148 | SOD323   | 50  | 50  | 0.26 | 10 | 5.00 | 10 |
| BA 885          | 3k*    | SP000010151 | SOT23    | 50  | 100 | 0.28 | 10 | 5.00 | 10 |
| ■ BA 892        | 3k*    | SP000010154 | SCD80    | 35  | 100 | 0.85 | 3  | 0.36 | 10 |
| ▼ BA 892        | 8k*    | SP000104705 | SCD80    | 35  | 100 | 0.85 | 3  | 0.36 | 10 |
| BA 892          | 10k*   | SP000010158 | SCD80    | 35  | 100 | 0.85 | 3  | 0.36 | 10 |
| BA 892-02L      | 15k*   | SP000013535 | TSLP-2-1 | 35  | 100 | 0.92 | 1  | 0.36 | 10 |
| BA 892-02V      | 3k*    | SP000013174 | SC79     | 35  | 100 | 0.85 | 3  | 0.36 | 10 |
| ▼ BA 892-02V    | 8k*    | SP000104706 | SC79     | 35  | 100 | 0.85 | 3  | 0.36 | 10 |
| ▼ BA 892-02V    | 10k*   | SP000013175 | SC79     | 35  | 100 | 0.85 | 3  | 0.36 | 10 |
| BA 895          | 3k*    | SP000012458 | SCD80    | 50  | 50  | 0.23 | 10 | 4.50 | 10 |
| BAR 14-1 (Dual) | 3k*    | SP000010164 | SOT23    | 100 | 140 | 0.25 | 50 | 7.00 | 10 |
| BAR 15-1 (Dual) | 3k*    | SP000010163 | SOT23    | 100 | 140 | 0.25 | 50 | 7.00 | 10 |
| BAR 16-1 (Dual) | 3k*    | SP000010165 | SOT23    | 100 | 140 | 0.25 | 50 | 7.00 | 10 |
| BAR 50-02L      | 15k*   | SP000013603 | TSLP-2-1 | 50  | 100 | 0.24 | 1  | 3.00 | 10 |
| BAR 50-02V      | 3k*    | SP000012921 | SC79     | 50  | 100 | 0.24 | 1  | 3.00 | 10 |
| BAR 61 (Triple) | 3k*    | SP000010169 | SOT143   | 100 | 140 | 0.25 | 50 | 7.00 | 10 |
| BAR 63-02L      | 15k*   | SP000013537 | TSLP-2-1 | 50  | 100 | 0.21 | 5  | 1.00 | 10 |
| ▼ BAR 63-02L    | 50k*   | SP000013538 | TSLP-2-1 | 50  | 100 | 0.21 | 5  | 1.00 | 10 |
| BAR 63-02V      | 3k*    | SP000010162 | SC79     | 50  | 100 | 0.21 | 5  | 1.00 | 10 |

\* Order unit

SMD = Surface Mounted Device

# Silicon Discrete Components

| Type | Ordering Code | Package | Maximum Ratings    |                    | Characteristics<br>( $T_A = 25^\circ\text{C}$ ) |    |       |          |    |
|------|---------------|---------|--------------------|--------------------|-------------------------------------------------|----|-------|----------|----|
|      |               |         | $V_{R\text{ max}}$ | $I_{F\text{ max}}$ | $C_T$                                           | at | $V_R$ | $r_F$    | at |
|      |               |         | V                  | mA                 | pF                                              |    | V     | $\Omega$ | mA |

## RF Diodes

### PIN Diodes (8 mm Tape)

(cont'd)

|                        |      |             |           |     |     |      |    |      |    |
|------------------------|------|-------------|-----------|-----|-----|------|----|------|----|
| BAR 63-02W             | 3k*  | SP000010170 | SCD80     | 50  | 100 | 0.21 | 5  | 1.00 | 10 |
| ▼ BAR 63-02W           | 8k*  | SP000104697 | SCD80     | 50  | 100 | 0.21 | 5  | 1.00 | 10 |
| BAR 63-02W             | 10k* | SP000010171 | SCD80     | 50  | 100 | 0.21 | 5  | 1.00 | 10 |
| BAR 63-03W (Dual)      | 3k*  | SP000010172 | SOD323    | 50  | 100 | 0.21 | 5  | 1.00 | 10 |
| BAR 63-03W (Dual)      | 10k* | SP000010173 | SOD323    | 50  | 100 | 0.21 | 5  | 1.00 | 10 |
| BAR 63-04 (Dual)       | 3k*  | SP000012206 | SOT23     | 50  | 100 | 0.21 | 5  | 1.00 | 10 |
| BAR 63-04W (Dual)      | 3k*  | SP000010174 | SOT323    | 50  | 100 | 0.21 | 5  | 1.00 | 10 |
| BAR 63-05 (Dual)       | 3k*  | SP000012207 | SOT23     | 50  | 100 | 0.21 | 5  | 1.00 | 10 |
| BAR 63-05 (Dual)       | 10k* | SP000012210 | SOT23     | 50  | 100 | 0.21 | 5  | 1.00 | 10 |
| BAR 63-05W (Dual)      | 3k*  | SP000010175 | SOT323    | 50  | 100 | 0.21 | 5  | 1.00 | 10 |
| BAR 63-06 (Dual)       | 3k*  | SP000012208 | SOT23     | 50  | 100 | 0.21 | 5  | 1.10 | 10 |
| BAR 63-06W (Dual)      | 3k*  | SP000010176 | SOT323    | 50  | 100 | 0.21 | 5  | 1.00 | 10 |
| BAR 64-02LRH           | 15k* | SP000051041 | TSLP-2-7  | 200 | 100 | 0.23 | 20 | 2.10 | 10 |
| ▼ BAR 64-02LRH         | 50k* | SP000083331 | TSLP-2-7  | 200 | 100 | 0.23 | 20 | 2.10 | 10 |
| BAR 64-02V             | 3k*  | SP000010361 | SC79      | 200 | 100 | 0.23 | 20 | 2.10 | 10 |
| ▼ BAR 64-02V           | 8k*  | SP000104696 | SC79      | 200 | 100 | 0.23 | 20 | 2.10 | 10 |
| BAR 64-03W             | 3k*  | SP000010179 | SOD323    | 200 | 100 | 0.23 | 20 | 2.10 | 10 |
| BAR 64-04 (Dual)       | 3k*  | SP000012211 | SOT23     | 200 | 100 | 0.23 | 20 | 2.10 | 10 |
| BAR 64-04W (Dual)      | 3k*  | SP000010180 | SOT323    | 150 | 100 | 0.23 | 20 | 2.10 | 10 |
| BAR 64-05 (Dual)       | 3k*  | SP000012212 | SOT23     | 200 | 100 | 0.23 | 20 | 2.10 | 10 |
| BAR 64-05 (Dual)       | 10k* | SP000012214 | SOT23     | 200 | 100 | 0.23 | 20 | 2.10 | 10 |
| BAR 64-05W (Dual)      | 3k*  | SP000010181 | SOT323    | 200 | 100 | 0.23 | 20 | 2.10 | 10 |
| BAR 64-05W (Dual)      | 10k* | SP000010183 | SOT323    | 200 | 100 | 0.23 | 20 | 2.10 | 10 |
| BAR 64-06 (Dual)       | 3k*  | SP000012213 | SOT23     | 200 | 100 | 0.23 | 20 | 2.10 | 10 |
| BAR 64-06W (Dual)      | 3k*  | SP000010182 | SOT323    | 150 | 100 | 0.23 | 20 | 2.10 | 10 |
| BAR 64-07 (Dual)       | 3k*  | SP000010184 | SOT143    | 200 | 100 | 0.23 | 20 | 2.10 | 10 |
| BAR 65-02L             | 15k* | SP000013542 | TSLP-2-1  | 30  | 100 | 0.60 | 1  | 0.56 | 10 |
| BAR 65-02V             | 3k*  | SP000010359 | SC79      | 30  | 100 | 0.60 | 1  | 0.56 | 10 |
| BAR 65-03W             | 3k*  | SP000010186 | SOD323    | 30  | 100 | 0.60 | 1  | 0.56 | 10 |
| BAR 67-02V             | 3k*  | SP000010369 | SC79      | 150 | 200 | 0.35 | 5  | 1.10 | 10 |
| BAR 88-02V             | 3k*  | SP000013484 | SC79      | 80  | 100 | 0.30 | 1  | 0.80 | 10 |
| ▼ BAR 88-02V           | 8k*  | SP000104695 | SC79      | 80  | 100 | 0.30 | 1  | 0.80 | 10 |
| BAR 88-02LRH           | 15k* | SP000051042 | TSLP-2-7  | 80  | 100 | 0.30 | 1  | 0.80 | 10 |
| ▼ BAR 88-02LRH         | 50k* | SP000083408 | TSLP-2-7  | 80  | 100 | 0.30 | 1  | 0.80 | 10 |
| ▼ BAR 88-07LRH (Dual)  | 15k* | SP000053489 | TSLP-4-7  | 80  | 100 | 0.30 | 1  | 0.80 | 10 |
| ▼ BAR 88-098LRH (Dual) | 15k* | SP000053490 | TSLP-4-7  | 80  | 100 | 0.30 | 1  | 0.80 | 10 |
| ▼ BAR 88-099LRH        | 15k* | SP000053491 | TSLP-4-7  | 80  | 100 | 0.30 | 1  | 0.80 | 10 |
| BAR 89-02LRH           | 15k* | SP000051043 | TSLP-2-7  | 80  | 100 | 0.25 | 1  | 0.80 | 10 |
| ▼ BAR 89-02LRH         | 50k* | SP000083407 | TSLP-2-7  | 80  | 100 | 0.25 | 1  | 0.80 | 10 |
| BAR 90-02LRH           | 15k* | SP000051045 | TSLP-2-7  | 80  | 100 | 0.25 | 1  | 0.80 | 10 |
| ▼ BAR 90-02LS          | 15k* | SP000200323 | TSSLP-2-1 | 80  | 100 | 0.25 | 1  | 0.80 | 10 |
| BAR 90-07LRH (Dual)    | 15k* | SP000053483 | TSLP-4-7  | 80  | 100 | 0.25 | 1  | 0.80 | 10 |
| ▼ BAR 90-098LRH (Dual) | 15k* | SP000053484 | TSLP-4-7  | 80  | 100 | 0.25 | 1  | 0.80 | 10 |
| ▼ BAR 90-098L4 (Dual)  | 15k* | SP000062626 | TSLP-4-4  | 80  | 100 | 0.25 | 1  | 0.80 | 10 |
| BAR 90-099LRH          | 15k* | SP000053485 | TSLP-4-7  | 80  | 100 | 0.25 | 1  | 0.80 | 10 |
| ▼ BAR 95-02LS          | 15k* | SP000099220 | TSSLP-2-1 | 50  | 100 | 0.25 | 1  | 0.80 | 10 |

\* Order unit

SMD = Surface Mounted Device

# Silicon Discrete Components

| Type | Ordering Code | Package | Maximum Ratings |       | Characteristics<br>( $T_A = 25^\circ\text{C}$ ) |    |       |
|------|---------------|---------|-----------------|-------|-------------------------------------------------|----|-------|
|      |               |         | $V_R$           | $I_F$ | $C_T$                                           | at | $V_R$ |
|      |               |         | V               | mA    | pF                                              |    | V     |

## RF Diodes

### Variable Capacitance Diodes (8 mm Tape)

|                       |      |             |        |    |    |               |   |               |
|-----------------------|------|-------------|--------|----|----|---------------|---|---------------|
| BB 439 matched        | 3k*  | SP000010372 | SOD323 | 30 | 20 | 26 ... 32     | 3 | 5 ... 6.5     |
| BB 535 matched        | 3k*  | SP000010375 | SOD323 | 30 | 20 | 17.5 ... 20   | 1 | 8.2 ... 9.8   |
| BB 535 unmatched      | 3k*  | SP000010377 | SOD323 | 30 | 20 | 17.5 ... 20   | 1 | 8.2 ... 9.8   |
| BB 545 matched        | 3k*  | SP000010383 | SOD323 | 30 | 20 | 18.5 ... 21.5 | 1 | 9 ... 11      |
| BB 545 unmatched      | 3k*  | SP000010384 | SOD323 | 30 | 20 | 18.5 ... 21.5 | 1 | 9 ... 11      |
| BB 555 matched        | 3k*  | SP000010389 | SCD80  | 30 | 20 | 17.5 ... 20   | 1 | 6.7           |
| BB 555 unmatched      | 3k*  | SP000010390 | SCD80  | 30 | 20 | 17.5 ... 20   | 1 | 6.7           |
| BB 555-02V matched    | 3k*  | SP000013176 | SC79   | 30 | 20 | 17.5 ... 20   | 1 | 8.2 ... 9.8   |
| BB 555-02V unmatched  | 3k*  | SP000013177 | SC79   | 30 | 20 | 17.5 ... 20   | 1 | 8.2 ... 9.8   |
| BB 565 matched        | 3k*  | SP000010393 | SCD80  | 30 | 20 | 18.5 ... 21.5 | 1 | 7.2           |
| BB 565 unmatched      |      | SP000010392 | SCD80  | 30 | 20 | 18.5 ... 21.5 | 1 | 7.2           |
| BB 565-02V matched    | 3k*  | SP000013416 | SC79   | 30 | 20 | 18.5 ... 21.5 | 1 | 9 ... 11      |
| BB 639 matched        | 3k*  | SP000010401 | SOD323 | 30 | 20 | 36 ... 42     | 1 | 13.5          |
| BB 639 unmatched      | 3k*  | SP000010403 | SOD323 | 30 | 20 | 36 ... 42     | 1 | 13.5          |
| BB 639C matched       | 3k*  | SP000010396 | SOD323 | 30 | 20 | 36 ... 42     | 1 | 11.1          |
| BB 640 matched        | 3k*  | SP000010406 | SOD323 | 30 | 20 | 62 ... 76     | 1 | 19.5          |
| BB 644 matched        | 3k*  | SP000010411 | SOD323 | 30 | 20 | 39 ... 44.5   | 1 | 11.8          |
| ▼ BB 659 matched      | 3k*  | SP000056645 | SCD 80 | 30 | 20 | 36 ... 40     | 1 | 14.7          |
| ▼ BB 659 unmatched    | 3k*  | SP000010414 | SCD 80 | 30 | 20 | 36 ... 40     | 1 | 14.7          |
| BB 659C matched       | 3k*  | SP000010417 | SCD80  | 30 | 20 | 36 ... 42     | 1 | 11.1          |
| BB 659C-02V matched   | 3k*  | SP000013179 | SC79   | 30 | 20 | 36.5 ... 42   | 1 | 9.5 ... 11.1  |
| BB 659C-02V unmatched | 3k*  | SP000013180 | SC79   | 30 | 20 | 36.5 ... 42   | 1 | 9.5 ... 11.1  |
| BB 664 matched        | 3k*  | SP000010418 | SCD80  | 30 | 20 | 39 ... 44.5   | 1 | 11.8          |
| BB 664-02V matched    | 3k*  | SP000013418 | SC79   | 30 | 20 | 39 ... 44.5   | 1 | 11.8          |
| BB 669 matched        | 3k*  | SP000010419 | SOD323 | 30 | 20 | 51 ... 61.5   | 1 | 15.5          |
| BB 689 matched        | 3k*  | SP000010423 | SCD80  | 30 | 20 | 51 ... 61.5   | 1 | 15.5          |
| BB 689 unmatched      | 3k*  | SP000010422 | SCD80  | 30 | 20 | 51 ... 61.5   | 1 | 15.5          |
| BB 689-02V matched    | 3k*  | SP000013414 | SC79   | 30 | 20 | 51 ... 61.5   | 1 | 15.5          |
| BB 689-02V unmatched  | 3k*  | SP000013415 | SC79   | 30 | 20 | 51 ... 61.5   | 1 | 15.5          |
| BB 804SF1 (Dual)      | 3k*  | SP000010425 | SOT23  | 20 | 50 | 43.0 ... 44.5 | 2 | 1.70          |
| ■ BB 804SF2 (Dual)    | 3k*  | SP000010426 | SOT23  | 20 | 50 | 44.0 ... 45.5 | 2 | 1.70          |
| ■ BB 804SF3 (Dual)    | 3k*  | SP000010427 | SOT23  | 20 | 50 | 45.0 ... 46.5 | 2 | 1.70          |
| ■ BB 814GR1 (Dual)    | 3k*  | SP000010433 | SOT23  | 20 | 50 | 43.0 ... 44.5 | 2 | 2.05 ... 2.25 |
| ▼ BB 814GR1 (Dual)    | 3k*  | SP000095920 | SOT23  | 20 | 50 | 43.0 ... 44.5 | 2 | 2.05 ... 2.25 |
| BB 814GR1 (Dual)      | 10k* | SP000051040 | SOT23  | 20 | 50 | 43.0 ... 44.5 | 2 | 2.05 ... 2.25 |
| BB 814GR2 (Dual)      | 3k*  | SP000010435 | SOT23  | 20 | 50 | 45.0 ... 46.5 | 2 | 2.05 ... 2.25 |
| BB 831                | 3k*  | SP000012250 | SOD323 | 30 | 20 | 7.8 ... 9.8   | 1 | 8.60          |
| BB 833                | 3k*  | SP000010437 | SOD323 | 30 | 20 | 8.5 ... 10    | 1 | 12.40         |
| BB 833                | 10k* | SP000010438 | SOD323 | 30 | 20 | 8.5 ... 10    | 1 | 12.40         |
| BB 837                | 3k*  | SP000010441 | SOD323 | 30 | 20 | 6.0 ... 7.2   | 1 | 12.20         |
| BB 844                | 3k*  | SP000013388 | SOT23  | 18 | 50 | 42.5 ... 45   | 2 | 3.2 ... 3.8   |
| BB 857 matched        | 3k*  | SP000010443 | SCD80  | 30 | 20 | 6.0 ... 7.2   | 1 | 12.00         |
| BB 914 (Dual)         | 3k*  | SP000010445 | SOT23  | 20 | 50 | 42.5 ... 45   | 2 | 2.28 ... 2.42 |

\* Order unit

SMD = Surface Mounted Device

## Silicon Discrete Components

| Type | Ordering Code | Package | Maximum Ratings |       | Characteristics<br>( $T_A = 25^\circ\text{C}$ ) |          |
|------|---------------|---------|-----------------|-------|-------------------------------------------------|----------|
|      |               |         | $V_R$           | $I_F$ | $C_T$                                           | at $V_R$ |
|      |               |         | V               | mA    | pF                                              | V        |

### RF Diodes

#### Electrostatic Discharge Protection Diodes

|        |             |       |     |     |             |    |
|--------|-------------|-------|-----|-----|-------------|----|
| BAR 66 | SP000010187 | SOT23 | 150 | 200 | $\leq 0.60$ | 35 |
|--------|-------------|-------|-----|-----|-------------|----|

| Type | Ordering Code | Package | Maximum Ratings |          | Characteristics<br>( $T_A = 25^\circ\text{C}$ ) |          |
|------|---------------|---------|-----------------|----------|-------------------------------------------------|----------|
|      |               |         | $V_{RWM}$       | $I_{PP}$ | $C_T$                                           | at $V_R$ |
|      |               |         | V               | A        | pF                                              | V        |

### Transient Voltage Suppressor (TVS) Diodes

#### 1-Channel ESD Protection

|                   |     |             |        |   |    |     |   |
|-------------------|-----|-------------|--------|---|----|-----|---|
| ▼ ESD 5V02S1U-03W | 3k* | SP000205608 | SOD323 | 5 | 30 | 430 | 0 |
|-------------------|-----|-------------|--------|---|----|-----|---|

#### 2-Channel ESD Protection

|                  |     |             |          |          |    |         |   |
|------------------|-----|-------------|----------|----------|----|---------|---|
| ▼ ESD 5V02S1U-06 | 3k* | SP000205610 | SOT23    | 5        | 30 | 430     | 0 |
| ▼ ESD 8V0L2B-03L | 3k* | SP000055122 | TSLP-3-1 | 8 ... 14 | 1  | 4 ... 0 | 0 |

#### 5-Channel ESD Protection

|                |     |             |        |   |   |    |   |
|----------------|-----|-------------|--------|---|---|----|---|
| ▼ ESD 5V02S1US | 3k* | SP000205611 | SOT363 | 5 | 6 | 70 | 0 |
|----------------|-----|-------------|--------|---|---|----|---|

\* Order unit

SMD = Surface Mounted Device

# Silicon Discrete Components

| Type | Ordering Code | Package | Maximum Ratings |       | Characteristics<br>( $T_A = 25^\circ\text{C}$ ) |    |       |                 |
|------|---------------|---------|-----------------|-------|-------------------------------------------------|----|-------|-----------------|
|      |               |         | $V_R$           | $I_F$ | $C_T$                                           | at | $V_R$ | $C_{T1}/C_{T2}$ |
|      |               |         | V               | mA    | pF                                              |    | V     |                 |

## RF Diodes

### Varactor Diodes

|               |      |              |           |    |    |               |   |      |
|---------------|------|--------------|-----------|----|----|---------------|---|------|
| BBY 51        | 3k*  | SP000010449  | SOT23     | 7  | 20 | 4.5 ... 6.1   | 1 | 1.75 |
| BBY 51        | 10k* | SP000010451  | SOT23     | 7  | 20 | 4.5 ... 6.1   | 1 | 1.75 |
| BBY 51-02L    | 15k* | SP000014590  | TSLP-2-1  | 7  | 20 | 4.5 ... 6.1   | 1 | 1.75 |
| BBY 51-02W    | 3k*  | SP000010452  | SCD80     | 7  | 20 | 4.5 ... 6.1   | 1 | 1.75 |
| BBY 51-03W    | 3k*  | SP000010453  | SOD323    | 7  | 20 | 4.5 ... 6.1   | 1 | 1.75 |
| BBY 52-02L    | 15k* | SP000014591  | TSLP-2-1  | 7  | 20 | 1.4 ... 2.2   | 1 | 1.60 |
| BBY 52-02W    | 3k*  | SP000010454  | SCD80     | 7  | 20 | 1.4 ... 2.2   | 1 | 1.60 |
| BBY 53        | 3k*  | SP000010455  | SOT23     | 6  | 20 | 4.8 ... 5.8   | 1 | 2.20 |
| BBY 53-02L    | 15k* | SP000014592  | TSLP-2-1  | 6  | 20 | 4.8 ... 5.8   | 1 | 2.20 |
| BBY 53-02V    | 3k*  | SP000010337  | SC79      | 6  | 20 | 4.8 ... 5.8   | 1 | 2.20 |
| BBY 53-02W    | 3k*  | SP000010459  | SCD80     | 6  | 20 | 4.8 ... 5.8   | 1 | 2.20 |
| BBY 53-03LRH  | 15k* | SP000083405  | TSLP-3-7  | 6  | 20 | 4.8 ... 5.8   | 1 | 2.20 |
| BBY 53-03W    | 3k*  | SP000010461  | SOD323    | 6  | 20 | 4.8 ... 5.8   | 1 | 2.20 |
| BBY 53-05W    | 3k*  | SP000012248  | SOT323    | 6  | 20 | 4.8 ... 5.8   | 1 | 2.20 |
| BBY 55-02V    | 3k*  | SP000013069  | SC79      | 16 | 20 | 14.0 ... 16   | 1 | 2.50 |
| BBY 55-02W    | 3k*  | SP000012232  | SCD80     | 16 | 20 | 14.0 ... 16   | 1 | 2.50 |
| BBY 55-03W    | 3k*  | SP000012238  | SOD323    | 16 | 20 | 14.0 ... 16   | 1 | 2.50 |
| BBY 56-02W    | 3k*  | SP000012233  | SCD80     | 10 | 20 | 59.0 ... 67   | 1 | 2.45 |
| ▼ BBY 56-02W  | 8k*  | SP0000104694 | SCD80     | 10 | 20 | 59.0 ... 67   | 1 | 2.45 |
| BBY 56-03W    | 3k*  | SP000012239  | SOD323    | 10 | 20 | 59.0 ... 67   | 1 | 2.45 |
| BBY 57-02V    | 3k*  | SP000010317  | SC79      | 10 | 20 | 16.5 ... 18.6 | 1 | 2.45 |
| BBY 57-02L    | 15k* | SP000013551  | TSLP-2-1  | 10 | 20 | 16.5 ... 18.6 | 1 | 2.45 |
| BBY 57-02W    | 3k*  | SP000012234  | SCD80     | 10 | 20 | 16.5 ... 18.6 | 1 | 2.45 |
| ▼ BBY 57-02W  | 8k*  | SP0000104693 | SCD80     | 10 | 20 | 16.5 ... 18.6 | 1 | 2.45 |
| ■ BBY 57-05W  | 3k*  | SP000012457  | SOT323    | 10 | 20 | 16.5 ... 18.6 | 1 | 2.45 |
| BBY 58-02L    | 15k* | SP000013552  | TSLP-2-1  | 8  | 50 | 17.5 ... 19.3 | 1 | 3.00 |
| BBY 58-02V    | 3k*  | SP000012231  | SC79      | 10 | 20 | 17.5 ... 19.3 | 1 | 2.15 |
| BBY 58-02W    | 3k*  | SP000012235  | SCD80     | 10 | 20 | 17.5 ... 19.3 | 1 | 2.15 |
| ▼ BBY 58-02W  | 8k*  | SP0000104692 | SCD80     | 10 | 20 | 17.5 ... 19.3 | 1 | 2.15 |
| BBY 58-03W    | 3k*  | SP000012240  | SOD323    | 10 | 20 | 17.5 ... 19.3 | 1 | 2.15 |
| BBY 58-05W    | 3k*  | SP000014603  | SOT323    | 10 | 20 | 17.5 ... 19.3 | 1 | 2.15 |
| BBY 58-06W    | 3k*  | SP000014605  | SOT323    | 10 | 20 | 17.5 ... 19.3 | 1 | 2.15 |
| BBY 59-02V    | 3k*  | SP000012825  | SC79      | 15 | 50 | 26.6 ... 29.0 | 1 | 4.00 |
| ▼ BBY 61-02LS | 3k*  | SP0000200324 | TSSLP-2-1 | 10 | 50 | 4.9           | 1 | 2.45 |
| BBY 65-02V    | 3k*  | SP000013604  | SC79      | 15 | 50 | 20.25         | 1 | 4.55 |
| BBY 66-05     | 3k*  | SP000012826  | SOT23     | 12 | 50 | 66.0 ... 71.5 | 1 | 5.41 |
| BBY 66-05W    | 3k*  | SP000012827  | SOT323    | 12 | 50 | 66.0 ... 71.5 | 1 | 5.41 |

\* Order unit

SMD = Surface Mounted Device

# Silicon Discrete Components

| Type | Ordering Code | Package | Maximum Ratings |       |           | Characteristics<br>( $T_A = 25^\circ\text{C}$ ) |        |          |       |     |          |  |
|------|---------------|---------|-----------------|-------|-----------|-------------------------------------------------|--------|----------|-------|-----|----------|--|
|      |               |         | $V_{DS}$        | $I_D$ | $P_{tot}$ | $G_{ps}$                                        | $F$ at | $V_{DS}$ | $I_D$ | $f$ | $g_{fs}$ |  |
|      |               |         | V               | mA    | mW        | dB                                              | dB     | V        | mA    | MHz | mS       |  |

## RF Transistors

### Single MOSFET Tetrodes (8 mm Tape)

|                 |      |             |         |    |    |     |    |      |   |    |     |    |
|-----------------|------|-------------|---------|----|----|-----|----|------|---|----|-----|----|
| BF 998          | 3k*  | SP000010978 | SOT143  | 12 | 30 | 200 | 20 | 1.00 | 8 | 10 | 800 | 24 |
| BF 998R         | 3k*  | SP000010979 | SOT143R | 12 | 30 | 200 | 20 | 1.00 | 8 | 10 | 800 | 24 |
| BF 1005         | 3k*  | SP000010946 | SOT143  | 8  | 25 | 200 | 18 | 1.40 | 5 | 10 | 800 | 24 |
| BF 1005S        | 3k*  | SP000010949 | SOT143  | 8  | 25 | 200 | 19 | 1.60 | 5 | 12 | 800 | 30 |
| BF 1005S        | 10k* | SP000010952 | SOT143  | 8  | 25 | 200 | 19 | 1.60 | 5 | 12 | 800 | 30 |
| BF 1005SR       | 3k*  | SP000010950 | SOT143R | 8  | 25 | 200 | 19 | 1.60 | 5 | 12 | 800 | 30 |
| BF 1009S        | 3k*  | SP000010955 | SOT143  | 12 | 25 | 200 | 22 | 1.40 | 9 | 12 | 800 | 30 |
| BF 1009SR       | 3k*  | SP000010956 | SOT143R | 12 | 25 | 200 | 22 | 1.40 | 9 | 12 | 800 | 30 |
| BF 2030 E-6814  | 3k*  | SP000012219 | SOT143  | 14 | 40 | 200 | –  | 2.0  | 5 | 10 | 800 | 31 |
| BF 2030R E-6814 | 3k*  | SP000012220 | SOT143R | 14 | 40 | 200 | –  | 2.0  | 5 | 10 | 800 | 31 |
| BF 2030W E-6814 | 3k*  | SP000012223 | SOT343  | 14 | 40 | 200 | –  | 2.0  | 5 | 10 | 800 | 31 |
| BF 2040 E-6814  | 3k*  | SP000012215 | SOT143  | 8  | 20 | 200 | 21 | 1.7  | 5 | 15 | 800 | 45 |
| BF 2040R E-6814 | 3k*  | SP000012216 | SOT143R | 8  | 20 | 200 | 21 | 1.7  | 5 | 15 | 800 | 45 |
| BF 2040W E-6814 | 3k*  | SP000012226 | SOT343  | 8  | 20 | 200 | 23 | 1.6  | 5 | 15 | 800 | 45 |
| ▼ BF 5030W      | 3k*  | SP000101236 | SOT343  | 8  | 25 | 200 | 24 | 1.3  | 3 | 10 | 800 | 41 |

### Dual MOSFET Tetrodes (8 mm Tape)

|            |     |             |        |   |    |     |    |      |   |    |     |       |
|------------|-----|-------------|--------|---|----|-----|----|------|---|----|-----|-------|
| ■ BG 3123  | 3k* | SP000014846 | SOT363 | 8 | 25 | 160 | 24 | 1.30 | 5 | 10 | 800 | 25/30 |
| BG 3123R   | 3k* | SP000015126 | SOT363 | 8 | 25 | 160 | 24 | 1.30 | 5 | 10 | 800 | 25/30 |
| BG 3130    | 3k* | SP000013182 | SOT363 | 8 | 25 | 160 | 24 | 1.30 | 5 | 10 | 800 | 33/33 |
| BG 3130R   | 3k* | SP000014450 | SOT363 | 8 | 25 | 160 | 24 | 1.30 | 5 | 10 | 800 | 33/33 |
| BG 3140    | 3k* | SP000013183 | SOT363 | 8 | 25 | 160 | 24 | 1.30 | 5 | 15 | 800 | 42    |
| BG 3140R   | 3k* | SP000014451 | SOT363 | 8 | 25 | 160 | 24 | 1.30 | 5 | 15 | 800 | 42    |
| BG 3230    | 3k* | SP000013594 | SOT363 | 8 | 25 | 160 | 24 | 1.30 | 5 | 10 | 800 | 33    |
| ■ BG 3230R | 3k* | SP000014452 | SOT363 | 8 | 25 | 160 | 24 | 1.30 | 5 | 10 | 800 | 33    |
| ▼ BG 5130R | 3k* | SP000101237 | SOT363 | 8 | 25 | 200 | 24 | 1.30 | 3 | 10 | 800 | 41    |

### MOSFET Triodes (8 mm Tape)

|        |     |             |       |    |    |     |    |      |    |    |     |    |
|--------|-----|-------------|-------|----|----|-----|----|------|----|----|-----|----|
| BF 999 | 3k* | SP000010985 | SOT23 | 20 | 30 | 200 | 25 | 1.00 | 10 | 10 | 200 | 16 |
|--------|-----|-------------|-------|----|----|-----|----|------|----|----|-----|----|

\* Order unit

SMD = Surface Mounted Device

# Silicon Discrete Components

| Type | Ordering Code | Package | Maximum Ratings       |             | Characteristics<br>( $T_A = 25^\circ\text{C}$ ) |           |               |
|------|---------------|---------|-----------------------|-------------|-------------------------------------------------|-----------|---------------|
|      |               |         | $V_{\text{CEO}}$<br>V | $I_C$<br>mA | $f_T$<br>GHz                                    | $G$<br>dB | at $f$<br>MHz |

## RF Transistors

### NPN Broadband Transistors (8 mm Tape)

|                |        |             |          |    |     |     |      |     |
|----------------|--------|-------------|----------|----|-----|-----|------|-----|
| BF 517         | 3k*    | SP000010958 | SOT23    | 15 | 25  | 2.0 | –    | –   |
| BF 770A        | 3k*    | SP000010965 | SOT23    | 12 | 50  | 5.5 | 13.5 | 800 |
| BF 771         | 3k*    | SP000010967 | SOT23    | 12 | 80  | 7.0 | 13.5 | 800 |
| BF 775         | 3k*    | SP000010972 | SOT23    | 12 | 30  | 4.5 | –    | –   |
| BF 799         | 3k*    | SP000010973 | SOT23    | 20 | 35  | 1.1 | –    | –   |
| BF 799W        | 3k*    | SP000010975 | SOT323   | 20 | 35  | 1.1 | –    | –   |
| BFP 181        | 3k*    | SP000011013 | SOT143   | 12 | 20  | 8.0 | 20   | 900 |
| BFP 182        | 3k*    | SP000011015 | SOT143   | 12 | 35  | 8.0 | 21.5 | 900 |
| BFP 182R       | 3k*    | SP000011016 | SOT143R  | 12 | 35  | 8.0 | 21.5 | 900 |
| BFP 182W       | 3k*    | SP000011017 | SOT343   | 12 | 35  | 8.0 | 21.5 | 900 |
| BFP 183        | 3k*    | SP000011018 | SOT143   | 12 | 65  | 8.0 | 20   | 900 |
| BFP 183W       | 3k*    | SP000011023 | SOT343   | 12 | 65  | 8.0 | 20   | 900 |
| BFP 193        | 3k*    | SP000011024 | SOT143   | 12 | 80  | 8.0 | 15   | 800 |
| BFP 193W       | 3k*    | SP000011026 | SOT343   | 12 | 80  | 8.0 | 20   | 800 |
| BFP 196        | 3k*    | SP000011027 | SOT143   | 12 | 100 | 7.2 | 16   | 900 |
| BFP 196R       | 3k*    | SP000011028 | SOT143R  | 12 | 100 | 7.2 | 16   | 900 |
| BFP 196W       | 3k*    | SP000011030 | SOT343   | 12 | 100 | 7.2 | 16   | 900 |
| BFR 35AP       | 3k*    | SP000011060 | SOT23    | 12 | 30  | 4.9 | 14   | 800 |
| BFR 92P        | 3k*    | SP000011062 | SOT23    | 15 | 30  | 5.0 | 15   | 900 |
| BFR 92W        | 3k*    | SP000011065 | SOT323   | 15 | 30  | 5.0 | 15.5 | 900 |
| BFR 93A        | 3k*    | SP000011066 | SOT23    | 12 | 50  | 6.0 | 13.5 | 900 |
| BFR 93AW       | 3k*    | SP000011071 | SOT323   | 12 | 50  | 6.0 | 15   | 900 |
| BFR 106        | 3k*    | SP000011044 | SOT23    | 15 | 100 | 4.9 | 17.8 | 500 |
| BFR 181        | 3k*    | SP000011047 | SOT23    | 12 | 20  | 8.0 | 18   | 900 |
| BFR 181 E-6780 | 3k*    | SP000011049 | SOT23    | 12 | 20  | 8.0 | 18   | 900 |
| BFR 181T       | 3k*    | SP000013378 | SC75     | 12 | 20  | 8.0 | 18   | 900 |
| BFR 181W       | 3k*    | SP000011050 | SOT323   | 12 | 20  | 8.0 | 18   | 900 |
| BFR 182        | 3k*    | SP000011051 | SOT23    | 12 | 35  | 8.0 | 18   | 900 |
| ▼ BFR 182      | 10x3k* | SP000056362 | SOT23    | 12 | 35  | 8.0 | 18   | 900 |
| BFR 182T       | 3k*    | SP000012913 | SC75     | 12 | 35  | 8.0 | 18   | 900 |
| BFR 182W       | 3k*    | SP000011053 | SOT323   | 12 | 35  | 8.0 | 18   | 900 |
| BFR 183        | 3k*    | SP000011054 | SOT23    | 12 | 65  | 8.0 | 18.5 | 900 |
| BFR 183T       | 3k*    | SP000012600 | SC75     | 12 | 65  | 8.0 | 18.5 | 900 |
| BFR 183W       | 3k*    | SP000011055 | SOT323   | 12 | 65  | 8.0 | 18.5 | 900 |
| BFR 193        | 3k*    | SP000011056 | SOT23    | 12 | 80  | 8.0 | 15.8 | 800 |
| BFR 193F       | 3k*    | SP000012976 | TSFP-3   | 12 | 150 | 8.0 | 19.0 | 900 |
| BFR 193L3      | 3k*    | SP000013557 | TSLP-3-1 | 12 | 150 | 8.0 | 19.0 | 900 |
| BFR 193W       | 3k*    | SP000011057 | SOT323   | 12 | 80  | 8.0 | 15.8 | 800 |

\* Order unit

SMD = Surface Mounted Device

## Silicon Discrete Components

| Type | Ordering Code | Package | Maximum Ratings |             | Characteristics<br>( $T_A = 25^\circ\text{C}$ ) |           |               |
|------|---------------|---------|-----------------|-------------|-------------------------------------------------|-----------|---------------|
|      |               |         | $V_{CE0}$<br>V  | $I_C$<br>mA | $f_T$<br>GHz                                    | $G$<br>dB | at $f$<br>MHz |

### RF Transistors

#### NPN Broadband Transistors (8 mm Tape)

(cont'd)

|           |      |             |          |     |       |      |      |      |
|-----------|------|-------------|----------|-----|-------|------|------|------|
| BFR 340F  | 15k* | SP000012978 | TSFP-3   | 6.0 | 10    | 14.0 | 16.0 | 1800 |
| BFR 340L3 | 15k* | SP000013558 | TSLP-3-1 | 6.0 | 10    | 14.0 | 17   | 1800 |
| BFR 340T  | 3k*  | SP000012982 | SC75     | 6.0 | 10    | 14.0 | 15   | 1800 |
| BFR 360F  | 15k* | SP000012979 | TSFP-3   | 6.0 | 35    | 14.0 | 15.5 | 1800 |
| BFR 360L3 | 15k* | SP000013560 | TSLP-3-1 | 6.0 | 35    | 14.0 | 16.5 | 1800 |
| BFR 360T  | 3k*  | SP000012983 | SC75     | 6.0 | 35    | 14.0 | 13.5 | 1800 |
| BFR 380F  | 15k* | SP000012981 | TSFP-3   | 6.0 | 80    | 14.0 | 13.5 | 1800 |
| BFR 380L3 | 15k* | SP000013562 | TSLP-3-1 | 6.0 | 80    | 14.0 | 13.5 | 1800 |
| BFR 380T  | 3k*  | SP000012984 | SC75     | 6.0 | 80    | 14.0 | 12.5 | 1800 |
| BFR 460L3 | 15k* | SP000014238 | TSLP-3-1 | 4.5 | 50    | 22.0 | 16   | 1800 |
| BFR 949L3 | 15k* | SP000013563 | TSLP-3-1 | 10  | 35    | 9.0  | 21.5 | 900  |
| BFR 949T  | 3k*  | SP000012972 | SC75     | 10  | 35    | 9.0  | 20   | 900  |
| BFS 17P   | 3k*  | SP000011073 | SOT23    | 15  | 25    | 2.5  | 10   | 800  |
| BFS 17P   | 10k* | SP000011079 | SOT23    | 15  | 25    | 2.5  | 10   | 800  |
| BFS 17W   | 3k*  | SP000011082 | SOT323   | 15  | 25    | 2.5  | 11   | 800  |
| BFS 360L6 | 15k* | SP000013974 | TSLP-6-1 | 6   | 35    | 14.0 | 14.5 | 1800 |
| BFS 380L6 | 15k* | SP000013976 | TSLP-6-1 | 6   | 80    | 14.0 | 12   | 1800 |
| BFS 386L6 | 15k* | SP000013975 | TSLP-6-1 | 6   | 35/80 | 14.0 | 14.5 | 1800 |

\* Order unit

SMD = Surface Mounted Device

## Silicon Discrete Components

| Type | Ordering Code | Package | Maximum Ratings       |                      | Characteristics<br>( $T_A = 25^\circ\text{C}$ ) |           |               |
|------|---------------|---------|-----------------------|----------------------|-------------------------------------------------|-----------|---------------|
|      |               |         | $V_{\text{CEO}}$<br>V | $I_{\text{C}}$<br>mA | $f_{\text{T}}$<br>GHz                           | $G$<br>dB | at $f$<br>MHz |

### RF Transistors

#### NPN Broadband Transistors (12 mm Tape)

|          |     |             |        |    |     |     |      |     |
|----------|-----|-------------|--------|----|-----|-----|------|-----|
| BFG 19S  | 1k* | SP000010992 | SOT223 | 15 | 100 | 5.3 | 13   | 900 |
| BFG 135A | 1k* | SP000010991 | SOT223 | 15 | 150 | 5.9 | 15   | 900 |
| BFG 193  | 4k* | SP000010994 | SOT223 | 12 | 80  | 8.0 | 15.5 | 900 |
| BFG 196  | 1k* | SP000010995 | SOT223 | 12 | 100 | 7.2 | 14   | 900 |
| BFG 235  | 1k* | SP000010996 | SOT223 | 12 | 300 | 6.0 | –    | –   |
| BFQ 19S  | 1k* | SP000011042 | SOT89  | 15 | 75  | 5.1 | 11.8 | 800 |

#### PNP Broadband Transistors (8 mm Tape)

|          |     |             |       |    |    |     |    |     |
|----------|-----|-------------|-------|----|----|-----|----|-----|
| ■ BFT 92 | 3k* | SP000011087 | SOT23 | 15 | 25 | 5.0 | 18 | 500 |
|----------|-----|-------------|-------|----|----|-----|----|-----|

| Type | Ordering Code | Package | Maximum Ratings      |                        | Characteristics<br>( $T_A = 25^\circ\text{C}$ ) |           |               |
|------|---------------|---------|----------------------|------------------------|-------------------------------------------------|-----------|---------------|
|      |               |         | $I_{\text{D}}$<br>mA | $P_{\text{tot}}$<br>mW | $NF$<br>dB                                      | $G$<br>dB | at $f$<br>MHz |

### Monolithic ICs

#### MMICs Low Noise Amplifiers

|             |       |             |          |    |    |     |      |      |
|-------------|-------|-------------|----------|----|----|-----|------|------|
| ■ BGA 428   | 3k*   | SP000012971 | SOT363   | 12 | 50 | 1.4 | 20   | 1800 |
| ▼ BGA 615L7 | 7.5k* | SP000016766 | TSLP-7-1 | 10 | 36 | 0.9 | 18   | 1500 |
| BGA 619     | 7.5k* | SP000014629 | TSLP-7-1 | 11 | –  | 1.5 | 15   | 1900 |
| ■ BGA 622   | 3k*   | SP000013748 | SOT343   | 10 | 35 | 1.1 | 13.3 | 2140 |
| BGA 622L7   | 7.5k* | SP000017535 | TSLP-7-1 | 10 | 35 | 1.0 | 17.5 | 1575 |

#### MMICs Broadband Amplifiers

|           |     |             |        |    |     |            |      |      |
|-----------|-----|-------------|--------|----|-----|------------|------|------|
| BGA 416   | 3k* | SP000013607 | SOT143 | 20 | –   | 1.3        | 23   | 900  |
| ■ BGA 420 | 3k* | SP000011089 | SOT143 | 15 | 90  | 2.2        | 13   | 1800 |
| BGA 427   | 3k* | SP000011091 | SOT343 | 25 | 150 | 2.2        | 18.5 | 1800 |
| BGA 612   | 3k* | SP000013391 | SOT343 | 80 | 225 | 2.35       | 16   | 2000 |
| BGA 614   | 3k* | SP000013392 | SOT343 | 80 | 240 | 2.3        | 17   | 2000 |
| BGA 616   | 3k* | SP000013393 | SOT343 | 80 | 360 | 2.9        | 17.5 | 2000 |
| BGB 420   | 3k* | SP000012230 | SOT343 | 30 | 120 | 1.5        | 17.5 | 1800 |
| BGB 540   | 3k* | SP000013194 | SOT343 | 80 | –   | 1.3 (5 mA) | 19   | 1800 |

\* Order unit

SMD = Surface Mounted Device

## Silicon Discrete Components

| Type | Ordering Code | Package | Maximum Ratings |             | Characteristics<br>( $T_A = 25^\circ\text{C}$ ) |                |               |
|------|---------------|---------|-----------------|-------------|-------------------------------------------------|----------------|---------------|
|      |               |         | $V_{CE0}$<br>V  | $I_C$<br>mA | $f_T$<br>GHz                                    | $G_{ms}$<br>dB | at $f$<br>MHz |

### RF Transistors

#### SIEGET®-25-RF-Bipolar NPN Transistors

|           |      |             |        |     |     |    |    |      |
|-----------|------|-------------|--------|-----|-----|----|----|------|
| ■ BFP 405 | 3k*  | SP000011032 | SOT343 | 4.5 | 12  | 25 | 22 | 1800 |
| BFP 405   | 10k* | SP000011033 | SOT343 | 4.5 | 12  | 25 | 22 | 1800 |
| BFP 405F  | 15k* | SP000012985 | TSFP-4 | 4.5 | 12  | 25 | 22 | 1800 |
| ■ BFP 420 | 3k*  | SP000011035 | SOT343 | 4.5 | 35  | 25 | 22 | 1800 |
| BFP 420   | 10k* | SP000011036 | SOT343 | 4.5 | 35  | 25 | 22 | 1800 |
| BFP 420F  | 15k* | SP000012986 | TSFP-4 | 4.5 | 35  | 25 | 22 | 1800 |
| ■ BFP 450 | 3k*  | SP000011039 | SOT343 | 4.5 | 100 | 24 | 14 | 1800 |

#### ESD Hardenend RF-Bipolar NPN Transistors

|              |      |             |          |     |    |    |      |      |
|--------------|------|-------------|----------|-----|----|----|------|------|
| BFP 460      | 3k*  | SP000015119 | SOT343   | 4.5 | 50 | 22 | 17.5 | 1800 |
| ▼ BFP 540ESD | 3k*  | SP000105377 | SOT343   | 4.0 | 80 | 34 | 21   | 1800 |
| BFS 460L6    | 15k* | SP000014239 | TSLP-6-1 | 4.5 | 50 | 22 | 14.5 | 1800 |
| BFS 466L6    | 15k* | SP000014240 | TSLP-6-1 | 4.5 | 50 | 22 | 14.5 | 1800 |
| BFS 469L6    | 15k* | SP000014241 | TSLP-6-1 | 4.5 | 50 | 22 | 14.5 | 1800 |

#### SIEGET®-45-RF-Bipolar NPN Transistors

|          |      |             |        |     |    |    |    |      |
|----------|------|-------------|--------|-----|----|----|----|------|
| BFP 520  | 3k*  | SP000012229 | SOT343 | 2.5 | 40 | 45 | 23 | 1800 |
| BFP 520F | 15k* | SP000012987 | TSFP-4 | 2.5 | 40 | 45 | 23 | 1800 |
| BFP 540  | 3k*  | SP000012602 | SOT343 | 4.5 | 80 | 29 | 21 | 1800 |
| BFP 540F | 15k* | SP000012988 | TSFP-4 | 4.5 | 80 | 29 | 21 | 1800 |

#### Silicon Germanium NPN Transistors

|                 |      |             |          |     |     |    |      |      |
|-----------------|------|-------------|----------|-----|-----|----|------|------|
| BFP 620 E-7764  | 3k*  | SP000012604 | SOT343   | 2.3 | 80  | 65 | 21.5 | 1800 |
| BFP 620F E-7764 | 15k* | SP000012989 | TSFP-4   | 2.3 | 80  | 65 | 21.5 | 1800 |
| ■ BFP 640       | 3k*  | SP000012991 | SOT343   | 4.0 | 50  | 40 | 24   | 1800 |
| BFP 640F        | 3k*  | SP000015118 | TSFP-4   | 4.0 | 50  | 40 | 24   | 1800 |
| BFP 650         | 3k*  | SP000013932 | SOT343   | 4.0 | 150 | 36 | 21.5 | 1800 |
| BFP 740         | 3k*  | SP000016424 | SOT343   | 4.0 | 160 | 42 | 27.5 | 1800 |
| BFP 740F        | 3k*  | SP000055205 | TSFP-4   | 4.0 | 160 | 42 | 27.5 | 1800 |
| ▼ BFP 740L3     | 3k*  | SP000085183 | TSFP-3-8 | 4.0 | 160 | 42 | 24   | 1800 |

#### RF-Dual Transistor Arrays

|         |     |             |        |    |    |     |    |     |
|---------|-----|-------------|--------|----|----|-----|----|-----|
| BFS 17S | 3k* | SP000011081 | SOT363 | 15 | 25 | 2.5 | 11 | 800 |
| BFS 481 | 3k* | SP000011084 | SOT363 | 12 | 20 | 8   | 19 | 900 |
| BFS 483 | 3k* | SP000011086 | SOT363 | 12 | 65 | 8   | 19 | 900 |

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## Sensors

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| Pressure Sensors . . . . .     | 133 |
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## Sensors

| Type | Ordering Code | Package | Data           |            |       |                             |
|------|---------------|---------|----------------|------------|-------|-----------------------------|
|      |               |         | Pressure Range | $P_{\max}$ | $V_s$ | Operating Temperature Range |
|      |               |         | kPa            | kPa        | V     | °C                          |

### Absolute Barometric Pressure Sensor IC

|       |             |              |            |     |               |              |
|-------|-------------|--------------|------------|-----|---------------|--------------|
| KP125 | SP000076563 | PG-DSOF-8-12 | 40 ... 150 | 240 | 4.50 ... 5.50 | −40 ... +125 |
|-------|-------------|--------------|------------|-----|---------------|--------------|

### Absolute Pressure Sensor IC

|             |             |               |             |       |               |              |
|-------------|-------------|---------------|-------------|-------|---------------|--------------|
| ▼ SP12      | SP000014795 | P-DSOSP-14-1  | 100 ... 450 | ± 8.5 | 1.80 ... 3.60 | −40 ... +125 |
| ▼ SP12 T-T1 | SP000014797 | P-DSOSP-14-1  | 50 ... 1400 | ± 28  | 1.80 ... 3.60 | −40 ... +125 |
| ▼ SP30 V2.1 | SP000081558 | P-DSOSP-14-6  | 100 ... 450 | ± 7.0 | 1.80 ... 3.60 | −40 ... +125 |
| ▼ SP30 V4.1 | SP000208318 | PG-DSOSP-14-6 | 100 ... 450 | ± 7.0 | 1.80 ... 3.60 | −40 ... +125 |

| Type | Ordering Code | Package | Data                                                                  |                            |                                     |              |                             |
|------|---------------|---------|-----------------------------------------------------------------------|----------------------------|-------------------------------------|--------------|-----------------------------|
|      |               |         | Basic Resistance<br>$T_A = 25^{\circ}\text{C}$<br>$I_N = 1\text{ mA}$ | $I_{\text{max}}$<br>(25°C) | (Thermal time constant<br>0 – 63 %) |              | Operating Temperature Range |
|      |               |         |                                                                       |                            | in still air                        | in still oil |                             |
|      |               |         |                                                                       |                            | $\Omega$                            | mA           |                             |

### Silicon Temperature Sensors

|          |             |       |           |   |    |     |              |
|----------|-------------|-------|-----------|---|----|-----|--------------|
| KT 110   | SP000011499 | TO-92 | 2000 ± 60 | 5 | 11 | 1.5 | −50 ... +150 |
| KT 130   | SP000013615 | SOT23 | 2000 ± 60 | 5 | 7  | 1   | −50 ... +150 |
| KT 210   | SP000011509 | TO-92 | 1000 ± 30 | 7 | 11 | 1.5 | −50 ... +150 |
| KT 230   | SP000011513 | SOT23 | 1000 ± 30 | 7 | 7  | 1   | −50 ... +150 |
| KTY 11-5 | SP000011496 | TO-92 | 1970 ± 20 | 5 | 11 | 1.5 | −50 ... +150 |
| KTY 11-6 | SP000011497 | TO-92 | 2000 ± 20 | 5 | 11 | 1.5 | −50 ... +150 |
| KTY 11-7 | SP000011498 | TO-92 | 2030 ± 20 | 5 | 11 | 1.5 | −50 ... +150 |
| KTY 13-5 | SP000013612 | SOT23 | 1970 ± 20 | 5 | 7  | 1   | −50 ... +150 |
| KTY 13-6 | SP000013613 | SOT23 | 2000 ± 20 | 5 | 7  | 1   | −50 ... +150 |
| KTY 13-7 | SP000013614 | SOT23 | 2030 ± 20 | 5 | 7  | 1   | −50 ... +150 |
| KTY 21-5 | SP000011506 | TO-92 | 985 ± 10  | 7 | 40 | 4   | −50 ... +150 |
| KTY 21-6 | SP000011507 | TO-92 | 1000 ± 10 | 7 | 40 | 4   | −50 ... +150 |
| KTY 21-7 | SP000011508 | TO-92 | 1015 ± 10 | 7 | 40 | 4   | −50 ... +150 |
| KTY 23-5 | SP000011510 | SOT23 | 985 ± 10  | 7 | 7  | 1   | −50 ... +150 |
| KTY 23-6 | SP000011511 | SOT23 | 1000 ± 10 | 7 | 7  | 1   | −50 ... +150 |
| KTY 23-7 | SP000011512 | SOT23 | 1015 ± 10 | 7 | 7  | 1   | −50 ... +150 |

SMD = Surface Mounted Device

## Sensors

| Type                 | Ordering Code | Package      | Description                                                                                                                                                       |
|----------------------|---------------|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Hall ICs             |               |              |                                                                                                                                                                   |
| TLE 4905L            | SP000016544   | PG-SSO-3-2   | Unipolar Hall IC switch, tape & reel                                                                                                                              |
| TLE 4905L E-6433     | SP000016545   | PG-SSO-3-2   | Unipolar Hall IC switch, AMMO-pack                                                                                                                                |
| TLE 4905G            | SP000011869   | SOT89        |                                                                                                                                                                   |
| TLE 4935L            | SP000016376   | PG-SSO-3-2   | Bipolar Hall IC latch, AMMO-pack                                                                                                                                  |
| TLE 4935G            | SP000011877   | SOT89        | Bipolar Hall IC latch, tape & reel                                                                                                                                |
| TLE 4945L            | SP000016546   | PG-SSO-3-2   | Bipolar Hall IC switch, AMMO-pack                                                                                                                                 |
| TLE 4945-2L          | SP000013154   | PG-SSO-3-2   |                                                                                                                                                                   |
| TLE 4945-2G          | SP000011879   | SOT89        | Bipolar Hall IC switch, tape & reel                                                                                                                               |
| TLE 4906L            | SP000012949   | PG-SSO-3-2   | High precision unipolar Hall IC switch, AMMO-pack                                                                                                                 |
| TLE 4906H            | SP000012950   | SC59         | High precision unipolar Hall IC switch, tape & reel                                                                                                               |
| TLE 4966L            | SP000014135   | PG-SSO-4-1   | High precision bipolar double Hall IC switch, AMMO-pack                                                                                                           |
| TLE 4966H            | SP000014532   | TSOP6-1      | High precision bipolar double Hall IC switch, tape & reel                                                                                                         |
| TLE 4946H            | SP000014640   | SC59         | High precision bipolar Hall IC latch, tape & reel                                                                                                                 |
| TLE 4946-1L          | SP000015003   | PG-SSO-3-2   | High precision bipolar Hall IC latch, AMMO-pack                                                                                                                   |
| TLE 4976L            | SP000012951   | PG-SSO-3-2   | High precision unipolar Hall IC switch with 2-wire interface, AMMO-pack                                                                                           |
| TLE 4976-1H          | SP000014722   | SC59         | High precision unipolar Hall IC switch with 2-wire interface, tape & reel                                                                                         |
| TLE 4921-5U          | SP000013593   | PG-SSO-4-1   | Dynamic differential Hall effect sensor IC, AMMO-pack                                                                                                             |
| TLE 4923             | SP000011875   | PG-SSO-3-6   |                                                                                                                                                                   |
| TLE 4925             | SP000013753   | PG-SSO-3-6   | Dynamic differential Hall effect sensor IC for crankshaft and transmission applications, AMMO-pack                                                                |
| TLE 4925C            | SP000014169   | PG-SSO-3-9   |                                                                                                                                                                   |
| TLE 4925-HT          | SP000018185   | PG-SSO-6     |                                                                                                                                                                   |
| TLE 4925C-HT E-6747  | SP000076003   | PG-SSO-9     |                                                                                                                                                                   |
| TLE 4913             | SP000013490   | SC59         | Low power Hall IC switch for battery powered applications, tape & reel                                                                                            |
| TLE 4917             | SP000013477   | TSOP6-1      |                                                                                                                                                                   |
| TLE 4941             | SP000015115   | PG-SSO-2-1   | Self calibrating differential Hall IC, two wire standard current interface, AMMO-pack                                                                             |
| TLE 4941C            | SP000015116   | PG-SSO-2-2   |                                                                                                                                                                   |
| TLE 4941-1           | SP000014942   | PG-SSO-2-1   | Self calibrating differential Hall IC, two wire PWM current interface, AMMO-pack                                                                                  |
| TLE 4941-1C          | SP000014553   | PG-SSO-2-2   |                                                                                                                                                                   |
| TLE 4942-1           | SP000015067   | PG-SSO-2-1   | Self calibrating differential Hall IC, two wire PWM current interface, air-gap diagnosis, assembly position diagnosis, detection of rotation direction, AMMO-pack |
| TLE 4942-1C          | SP000014552   | PG-SSO-2-2   | Self calibrating differential Hall IC, two wire PWM current interface, air-gap diagnosis, assembly position diagnosis, AMMO-pack                                  |
| TLE 4953 C           | SP000015141   | PG-SSO2-2    | Hall effect based transmission speed sensor IC with direction detection and vibration suppression, two wire PWM current interface, AMMO-pack                      |
| TLE 4990             | SP000012542   | PG-SSO-4-1   | Preprogrammable linear output Hall effect IC, AMMO-pack                                                                                                           |
| TLE 4990 E-6782      | SP000014373   | PG-SSO-4-1   |                                                                                                                                                                   |
| Angular Rate Sensors |               |              |                                                                                                                                                                   |
| SAR 10H              | SP000236872   | P-DSOSA-16-5 | Micro-machined silicon angular sensor designed for automotive rollover detection and navigation support systems                                                   |

SMD = Surface Mounted Device

## Sensors

| Type                    | Ordering Code | Package       | Description                                                                                              |
|-------------------------|---------------|---------------|----------------------------------------------------------------------------------------------------------|
| <b>Wireless Control</b> |               |               |                                                                                                          |
| ▼ TDA 5102              | SP000013431   | P-TSSOP-16-1  | ASK/FSK transceiver, 915 MHz, tape & reel                                                                |
| ▼ TDA 5102              | SP000013432   | PG-TSSOP-16-1 | ASK/FSK transceiver, 915 MHz, tape & reel                                                                |
| TDA 5200                | SP000016381   | P-TSSOP-28-1  | ASK receiver, 433/868 MHz, tape & reel                                                                   |
| TDA 5201                | SP000012902   | P-TSSOP-28-1  | ASK receiver, 315/345 MHz, tape & reel                                                                   |
| ▼ TDA 5201              | SP000087135   | PG-TSSOP-28-1 | ASK receiver, 315/345 MHz, tape & reel                                                                   |
| TDA 5210                | SP000016384   | P-TSSOP-28-1  | ASK/FSK receiver, 433/868 MHz, tape & reel                                                               |
| ▼ TDA 5210              | SP000087156   | PG-TSSOP-28-1 | ASK/FSK receiver, 433/868 MHz, tape & reel                                                               |
| TDA 5211                | SP000016390   | P-TSSOP-28-1  | ASK/FSK receiver, 315 MHz, tape & reel                                                                   |
| TDA 5212                | SP000013430   | P-TSSOP-28-1  | ASK/FSK receiver, 915 MHz, tape & reel                                                                   |
| TDA 5220                | SP000014342   | P-TSSOP-28-1  | ASK/FSK receiver, 433/868 MHz, tape & reel                                                               |
| TDA 5221                | SP000014343   | P-TSSOP-28-1  | ASK/FSK receiver, 315/317 MHz, tape & reel                                                               |
| TDA 5250                | SP000012956   | P-TSSOP-38-1  | ASK/FSK transceiver, 868 MHz, tape & reel                                                                |
| TDA 5251                | SP000014554   | P-TSSOP-38-1  | ASK/FSK transceiver, 315 MHz, tape & reel                                                                |
| ▼ TDA 5252              | SP000057332   | P-TSSOP-38-1  | ASK/FSK transceiver, 915 MHz, tape & reel                                                                |
| TDA 5255                | SP000014555   | P-TSSOP-38-1  | ASK/FSK transceiver, 434 MHz, tape & reel                                                                |
| TDK 5100                | SP000014556   | P-TSSOP-16-1  | ASK/FSK transmitter, 433/868 MHz, –40°C to 125°C operating temperature, tape & reel                      |
| TDK 5100 F              | SP000014745   | PG-TSSOP-10-1 | ASK/FSK transmitter, 434 MHz, –40°C to 125°C operating temperature, tape & reel                          |
| TDK 5101                | SP000014558   | P-TSSOP-16-1  | ASK/FSK transmitter, 315 MHz, –40°C to 125°C operating temperature, tape & reel                          |
| TDK 5101F               | SP000014744   | P-TSSOP-10-1  | ASK/FSK transmitter, 315 MHz, –40°C to 125°C operating temperature, 10-dBm output power, tape & reel     |
| TDK 5110                | SP000013531   | P-TSSOP-16-1  | ASK/FSK transmitter, 433/868 MHz, –40°C to 125°C operating temperature, 10-dBm output power, tape & reel |
| ▼ TDK 5110 F            | SP000056180   | PG-TSSOP-10-1 | ASK/FSK transmitter, 433/868 MHz, –40°C to 125°C operating temperature, 10-dBm output power, tape & reel |
| TDK 5111                | SP000014016   | P-TSSOP-16-1  | ASK/FSK transmitter, 315 MHz, –40°C to 125°C operating temperature, 10-dBm output power, tape & reel     |
| ▼ TDK 5111F             | SP000056181   | P-TSSOP-10-1  | ASK/FSK transmitter, 315 MHz, –40°C to 125°C operating temperature, 10-dBm output power, tape & reel     |
| ▼ TDK 5116F             | SP000056182   | PG-TSSOP-10-1 | ASK/FSK transmitter, 868 MHz, –40°C to 125°C operating temperature, 10-dBm output power, tape & reel     |

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## Chip Card + Security ICs

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## Chip Card + Security ICs

| Type | Ordering Code | Package | Description |
|------|---------------|---------|-------------|
|------|---------------|---------|-------------|

### Trusted Computing

|                   |             |             |                                  |
|-------------------|-------------|-------------|----------------------------------|
| ◆▼ SLB 9635 TT1.2 | SP000107000 | PG-TSSOP-28 | Trusted Platform Module (TPM1.2) |
|-------------------|-------------|-------------|----------------------------------|

### Smart Card Controllers

#### Performance Controller

|                       |             |            |                                                                                                                                                                 |
|-----------------------|-------------|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ◆ SLE 66C42P-C        | SP000060149 | wafer      | High performance controller with 4-Kbyte EEPROM, 64-Kbyte ROM, 2048 + 256-byte RAM, HW-DES incl. EC, targeted certification Common Criteria EAL 5+              |
| ◆ SLE 66C42P-M5.1     | SP000008985 | T-M5.1-8-1 |                                                                                                                                                                 |
| ◆ SLE 66C82P-C        | SP000060171 | wafer      | High performance controller with 8-Kbyte EEPROM, 64-Kbyte ROM, 1024 + 256-byte RAM, targeted certification Common Criteria EAL 5+                               |
| ◆ SLE 66C82P-M5.1     | SP000060172 | T-M5.1-8-1 |                                                                                                                                                                 |
| ◆ SLE 66C644P-C       | SP000060157 | wafer      | High performance controller with 64-Kbyte EEPROM, 208-Kbyte ROM, 4096 + 256-byte RAM in 0.22 µm technology, 112-bit DDES, ideal for GSM / UMTS applications     |
| ◆ SLE 66C644P-M5.1    | SP000060158 | T-M5.1-8-1 |                                                                                                                                                                 |
| ◆ SLE 66CX322P-C      | SP000060186 | wafer      | High performance controller with 32-Kbyte EEPROM, 136-Kbyte ROM, 4096 + 256-byte RAM + 700-byte Crypto RAM, certified according to common criteria level EAL 5+ |
| ◆ SLE 66CX322P-M5.1   | SP000009097 | T-M5.1-8-1 |                                                                                                                                                                 |
| ◆ SLE 66CX322P-MFC5.6 | SP000060188 | S-MFC5.6-6 |                                                                                                                                                                 |

#### Enhanced High Performance Controller

|                        |             |              |                                                                                                                                                                                      |
|------------------------|-------------|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ◆ SLE 66C24PE-C        | SP000060110 | wafer        | Enhanced high performance controller with 2-Kbyte EEPROM, 68-Kbyte ROM, 2304-byte RAM, DDES                                                                                          |
| ◆ SLE 66C24PE-M5.1     | SP000060111 | T-M5.1-8-1   |                                                                                                                                                                                      |
| ◆ SLE 66C24PE-MFC5.6   | SP000060112 | S-MFC5.6-6   |                                                                                                                                                                                      |
| ◆ SLE 66C24PE-MFC5.8   | SP000060113 | S-MFC5.8-8-1 | Enhanced high performance controller with 4-Kbyte EEPROM, 68-Kbyte ROM, 2304-byte RAM, DDES                                                                                          |
| ◆ SLE 66C44PE-C        | SP000060151 | wafer        |                                                                                                                                                                                      |
| ◆ SLE 66C44PE-M5.1     | SP000060152 | T-M5.1-8-1   |                                                                                                                                                                                      |
| ◆ SLE 66C44PE-MFC5.6   | SP000060153 | S-MFC5.6-6   | Enhanced high performance controller with 8-Kbyte EEPROM, 96-Kbyte ROM, 4352 + 700-byte Crypto RAM, 1100-bit advanced crypto engine, certified RSA 2048-bit library available, DDES  |
| ◆ SLE 66C44PE-MFC5.8   | SP000060154 | S-MFC5.8-8-1 |                                                                                                                                                                                      |
| ◆ SLE 66CX80PE-C       | SP000060202 | wafer        |                                                                                                                                                                                      |
| ◆ SLE 66CX80PE-M5.1    | SP000060203 | T-M5.1-8-1   | Enhanced high performance controller with 8-Kbyte EEPROM, 68-Kbyte ROM, 2304-byte RAM, DDES                                                                                          |
| ◆ SLE 66CX80PE-MFC5.6  | SP000060204 | S-MFC5.6-6   |                                                                                                                                                                                      |
| ◆ SLE 66CX80PE-MFC5.8  | SP000060205 | S-MFC5.8-8-1 |                                                                                                                                                                                      |
| ◆ SLE 66C84PE-C        | SP000060173 | wafer        | Enhanced high performance controller with 16-Kbyte EEPROM, 48-Kbyte ROM, 2304-byte RAM                                                                                               |
| ◆ SLE 66C84PE-M5.1     | SP000060174 | T-M5.1-8-1   |                                                                                                                                                                                      |
| ◆ SLE 66C84PE-MFC5.6   | SP000060175 | S-MFC5.6-6   |                                                                                                                                                                                      |
| ◆ SLE 66C84PE-MFC5.8   | SP000060176 | S-MFC5.8-8-1 | Enhanced high performance controller with 16-Kbyte EEPROM, 96-Kbyte ROM, 4352 + 700-byte Crypto RAM, 1100-bit advanced crypto engine, certified RSA 2048-bit library available, DDES |
| ◆ SLE 66C161PE-C       | SP000067539 | wafer        |                                                                                                                                                                                      |
| ◆ SLE 66C161PE-M5.1    | SP000067515 | T-M5.1-8-1   |                                                                                                                                                                                      |
| ◆ SLE 66C161PE-MFC5.6  | SP000067537 | S-MFC5.6-6   | Enhanced high performance controller with 16-Kbyte EEPROM, 96-Kbyte ROM, 4352-byte RAM, DDES                                                                                         |
| ◆ SLE 66C161PE-MFC5.8  | SP000060085 | S-MFC5.8-8-1 |                                                                                                                                                                                      |
| ◆ SLE 66CX162PE-C      | SP000060182 | wafer        |                                                                                                                                                                                      |
| ◆ SLE 66CX162PE-M5.1   | SP000060183 | T-M5.1-8-1   | Enhanced high performance controller with 16-Kbyte EEPROM, 68-Kbyte ROM, 2304-byte RAM, DDES                                                                                         |
| ◆ SLE 66CX162PE-MFC5.6 | SP000060184 | S-MFC5.6-6   |                                                                                                                                                                                      |
| ◆ SLE 66CX162PE-MFC5.8 | SP000060185 | S-MFC5.8-8-1 |                                                                                                                                                                                      |
| ◆ SLE 66C166PE-C       | SP000060100 | wafer        | Enhanced high performance controller with 16-Kbyte EEPROM, 96-Kbyte ROM, 4352-byte RAM, DDES                                                                                         |
| ◆ SLE 66C166PE-M5.1    | SP000060101 | T-M5.1-8-1   |                                                                                                                                                                                      |
| ◆ SLE 66C166PE-MFC5.6  | SP000060102 | S-MFC5.6-6   |                                                                                                                                                                                      |
| ◆ SLE 66C166PE-MFC5.8  | SP000060103 | S-MFC5.8-8-1 | Enhanced high performance controller with 16-Kbyte EEPROM, 68-Kbyte ROM, 2304-byte RAM, DDES                                                                                         |
| ◆ SLE 66C168PE-C       | SP000060105 | wafer        |                                                                                                                                                                                      |
| ◆ SLE 66C168PE-M5.1    | SP000067514 | T-M5.1-8-1   |                                                                                                                                                                                      |
| ◆ SLE 66C168PE-MFC5.6  | SP000060108 | S-MFC5.6-6   |                                                                                                                                                                                      |
| ◆ SLE 66C168PE-MFC5.8  | SP000060109 | S-MFC5.8-8-1 |                                                                                                                                                                                      |

SMD = Surface Mounted Device

## Chip Card + Security ICs

| Type                                                    | Ordering Code | Package      | Description                                                                                                                                                                           |
|---------------------------------------------------------|---------------|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Smart Card Controllers</b>                           |               |              |                                                                                                                                                                                       |
| <b>Enhanced High Performance Controller</b><br>(cont'd) |               |              |                                                                                                                                                                                       |
| ◆▼ SLE 50C363PE-C                                       | SP000104935   | wafer        | Enhanced high performance controller with 36-Kbyte EEPROM, 96-Kbyte ROM, 4096-byte RAM                                                                                                |
| ◆▼ SLE 50C363PE-M5.1                                    | SP000104936   | T-M5.1-8-1   |                                                                                                                                                                                       |
| ◆▼ SLE 50C363PE-MFC5.6                                  | SP000104937   | S-MFC5.6-6   |                                                                                                                                                                                       |
| ◆▼ SLE 50C363PE-MFC5.8                                  | SP000104938   | S-MFC5.8-8-1 |                                                                                                                                                                                       |
| ◆▼ SLE 50C683PE-C                                       | SP000104939   | wafer        | Enhanced high performance controller with 36-Kbyte EEPROM, 136-Kbyte ROM, 4096-byte RAM, DDES                                                                                         |
| ◆▼ SLE 50C683PE-M5.1                                    | SP000104940   | T-M5.1-8-1   |                                                                                                                                                                                       |
| ◆▼ SLE 50C683PE-MFC5.6                                  | SP000104941   | S-MFC5.6-6   |                                                                                                                                                                                       |
| ◆▼ SLE 50C683PE-MFC5.8                                  | SP000104942   | S-MFC5.8-8-1 |                                                                                                                                                                                       |
| ◆ SLE 66C321PE-M5.1                                     | SP000060137   | T-M5.1-8-1   | Enhanced high performance controller with 32-Kbyte EEPROM, 96-Kbyte ROM, 2304-byte RAM                                                                                                |
| ◆ SLE 66C321PE-MFC5.6                                   | SP000060138   | S-MFC5.6-6   |                                                                                                                                                                                       |
| ◆ SLE 66C321PE-MFC5.8                                   | SP000060139   | S-MFC5.8-8-1 |                                                                                                                                                                                       |
| ◆ SLE 66C324PE-C                                        | SP000060144   | wafer        |                                                                                                                                                                                       |
| ◆ SLE 66C324PE-M5.1                                     | SP000009889   | T-M5.1-8-1   | Enhanced high performance controller with 32-Kbyte EEPROM, 136-Kbyte ROM, 4352-byte RAM, DDES                                                                                         |
| ◆ SLE 66C324PE-MFC5.6                                   | SP000067540   | S-MFC5.6-6   |                                                                                                                                                                                       |
| ◆ SLE 66C324PE-MFC5.8                                   | SP000067545   | S-MFC5.8-8-1 |                                                                                                                                                                                       |
| ◆ SLE 66C360PE-C                                        | SP000060146   | wafer        |                                                                                                                                                                                       |
| ◆ SLE 66C360PE-M5.1                                     | SP000067575   | T-M5.1-8-1   | Enhanced high performance controller with 36-Kbyte EEPROM, 196-Kbyte ROM, 4352-byte RAM, DDES                                                                                         |
| ◆▼ SLE 66C367PE-C                                       | SP000204418   | wafer        |                                                                                                                                                                                       |
| ◆▼ SLE 66C367PE-M5.1                                    | SP000204419   | T-M5.1-8-1   |                                                                                                                                                                                       |
| ◆▼ SLE 66C367PE-MFC5.6                                  | SP000204420   | S-MFC5.6-6   |                                                                                                                                                                                       |
| ◆▼ SLE 66C367PE-MFC5.8                                  | SP000204421   | S-MFC5.8-8-1 | Enhanced high performance controller with 36-Kbyte EEPROM, 196-Kbyte ROM, 6400 + 700-byte Crypto RAM, 1100-bit advanced crypto engine, certified RSA 2048-bit library available, DDES |
| ◆ SLE 66CX360PE-C                                       | SP000060189   | wafer        |                                                                                                                                                                                       |
| ◆▼ SLE 66CX360PE-M5.1                                   | SP000215320   | T-M5.1-8-1   |                                                                                                                                                                                       |
| ◆ SLE 66CX360PE-MFC5.6                                  | SP000060191   | S-MFC5.6-6   |                                                                                                                                                                                       |
| ◆ SLE 66CX360PE-MFC5.8                                  | SP000060192   | S-MFC5.8-8-1 | Enhanced high performance controller with 68-Kbyte EEPROM, 244-Kbyte ROM, 6400-byte RAM, DDES                                                                                         |
| ◆ SLE 66C680PE-M                                        | SP000060159   | wafer        |                                                                                                                                                                                       |
| ◆ SLE 66C680PE-M5.1                                     | SP000060160   | T-M5.1-8-1   |                                                                                                                                                                                       |
| ◆ SLE 66CX680PE-C                                       | SP000067526   | wafer        |                                                                                                                                                                                       |
| ◆▼ SLE 66CX680PE-M5.1                                   | SP000216967   | T-M5.1-8-1   | Enhanced high performance controller with 68-Kbyte EEPROM, 244-Kbyte ROM, 6400 + 700-byte Crypto RAM, 1100-bit advanced crypto engine, certified RSA 2048-bit library available, DDES |
| ◆ SLE 66CX680PE-MFC5.6                                  | SP000060200   | S-MFC5.6-6   |                                                                                                                                                                                       |
| ◆ SLE 66CX680PE-MFC5.8                                  | SP000060201   | S-MFC5.8-8-1 |                                                                                                                                                                                       |
| ◆ SLE 66C681PE-C                                        | SP000060161   | wafer        |                                                                                                                                                                                       |
| ◆ SLE 66C681PE-M5.1                                     | SP000060162   | T-M5.1-8-1   | Enhanced high performance controller with 68-Kbyte EEPROM, 136-Kbyte ROM, 4352-byte RAM, DDES                                                                                         |
| ◆ SLE 66C681PE-MFC5.6                                   | SP000060163   | S-MFC5.6-6   |                                                                                                                                                                                       |
| ◆ SLE 66C681PE-MFC5.8                                   | SP000060164   | S-MFC5.8-8-1 |                                                                                                                                                                                       |
| ◆ SLE 66C682PE-C                                        | SP000060165   | wafer        |                                                                                                                                                                                       |
| ◆ SLE 66C682PE-M5.1                                     | SP000060166   | T-M5.1-8-1   | Enhanced high performance controller with 68-Kbyte EEPROM, 196-Kbyte ROM, 4352-byte RAM, DDES                                                                                         |
| ◆ SLE 66C682PE-MFC5.6                                   | SP000060167   | S-MFC5.6-6   |                                                                                                                                                                                       |
| ◆ SLE 66C682PE-MFC5.8                                   | SP000060168   | S-MFC5.8-8-1 |                                                                                                                                                                                       |

SMD = Surface Mounted Device

## Chip Card + Security ICs

| Type                                | Ordering Code | Package      | Description                                                                                                                                                                                                                            |
|-------------------------------------|---------------|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Smart Card Controllers</b>       |               |              |                                                                                                                                                                                                                                        |
| <b>High End Security Controller</b> |               |              |                                                                                                                                                                                                                                        |
| ◆▼ SLE 88C1690P-C                   | SP000234852   | wafer        | High end 32-bit security controller with 164-Kbyte EEPROM, 304-Kbyte ROM, 12-Kbyte RAM, DDES, ideal for virtual machine, optimized for multi-application                                                                               |
| ◆▼ SLE 88C1690P-M5.1                | SP000234853   | T-M5.1-8-1   |                                                                                                                                                                                                                                        |
| ◆▼ SLE 88C1690P-MFC5.6              | SP000234854   | S-MFC5.6-6   |                                                                                                                                                                                                                                        |
| ◆▼ SLE 88C1690P-MFC5.8              | SP000234855   | S-MFC5.8-8-1 |                                                                                                                                                                                                                                        |
| ◆▼ SLE 88C920P-C                    | SP000227724   | wafer        | High end 32-bit security controller with 92-Kbyte EEPROM, 304-Kbyte ROM, 12-Kbyte RAM, DDES, ideal for virtual machine, optimized for multi-application                                                                                |
| ◆▼ SLE 88C920P-M5.1                 | SP000227725   | T-M5.1-8-1   |                                                                                                                                                                                                                                        |
| ◆▼ SLE 88C920P-MFC5.6               | SP000227726   | S-MFC5.6-6   |                                                                                                                                                                                                                                        |
| ◆▼ SLE 88C9200P-MFC5.8              | SP000227727   | S-MFC5.8-8-1 |                                                                                                                                                                                                                                        |
| ◆▼ SLE 88CF2920P-C                  | SP000096156   | wafer        | High end 32-bit security controller with 292-Kbyte EEPROM, 80-Kbyte ROM, 16-Kbyte RAM with powerful Memory Management & Protection Unit, optimized for multi-application cards with highest level security                             |
| ◆▼ SLE 88CF2920P-M5.1               | SP000096157   | T-M5.1-8-1   |                                                                                                                                                                                                                                        |
| ◆▼ SLE 88CF2920P-MFC5.6             | SP000096158   | S-MFC5.6-6   |                                                                                                                                                                                                                                        |
| ◆▼ SLE 88CF2920P-MFC5.8             | SP000096159   | S-MFC5.8-8-1 |                                                                                                                                                                                                                                        |
| ◆▼ SLE 88CFX2920P-C                 | SP000096151   | wafer        | High end 32-bit security controller with 292-Kbyte EEPROM, 80-Kbyte ROM, 16-Kbyte RAM with powerful Memory Management & Protection Unit, optimized for multi-application cards with highest level security                             |
| ◆▼ SLE 88CFX2920P-M5.1              | SP000096152   | T-M5.1-8-1   |                                                                                                                                                                                                                                        |
| ◆▼ SLE 88CFX2920P-MFC5.6            | SP000096149   | S-MFC5.6-6   |                                                                                                                                                                                                                                        |
| ◆▼ SLE 88CFX2920P-MFC5.8            | SP000096150   | S-MFC5.8-8-1 |                                                                                                                                                                                                                                        |
| ◆▼ SLE 88CF3520P-C                  | SP000096160   | wafer        | High end 32-bit security controller with 352-Kbyte EEPROM, 80-Kbyte ROM, 16-Kbyte RAM with powerful Memory Management & Protection Unit, optimized for multi-application cards with highest level security                             |
| ◆▼ SLE 88CF3520P-M5.1               | SP000096161   | T-M5.1-8-1   |                                                                                                                                                                                                                                        |
| ◆▼ SLE 88CF3520P-MFC5.6             | SP000096162   | S-MFC5.6-6   |                                                                                                                                                                                                                                        |
| ◆▼ SLE 88CF3520P-MFC5.8             | SP000096163   | S-MFC5.8-8-1 |                                                                                                                                                                                                                                        |
| ◆ SLE 88CFX720P-C                   | SP000060217   | wafer        | High end 32-bit security controller with 80-Kbyte EEPROM, 240-Kbyte ROM, 8192-byte RAM, ideal for virtual machine execution and for calculation of Crypto algorithm, optimized for multi-application cards with highest level security |
| ◆ SLE 88CFX720P-M5.3                | SP000060218   | T-M5.3       |                                                                                                                                                                                                                                        |
| ◆▼ SLE 88CFX3520P-C                 | SP000096154   | wafer        | High end 32-bit security controller with 352-Kbyte EEPROM, 80-Kbyte ROM, 16-Kbyte RAM with powerful Memory Management & Protection Unit, optimized for multi-application cards with highest level security                             |
| ◆▼ SLE 88CFX3520P-M5.1              | SP000096155   | T-M5.1-8-1   |                                                                                                                                                                                                                                        |
| ◆▼ SLE 88CFX3520P-MFC5.6            | SP000096153   | S-MFC5.6-6   |                                                                                                                                                                                                                                        |
| ◆▼ SLE 88CF4000P-C                  | SP000067771   | wafer        | High end 32-bit security controller with 400-Kbyte EEPROM, 80-Kbyte ROM, 16-Kbyte RAM, ideal for virtual machine, optimized for multi-application cards with highest level security                                                    |
| ◆▼ SLE 88CF4000P-M5.1               | SP000067772   | T-M5.1-8-1   |                                                                                                                                                                                                                                        |
| ◆▼ SLE 88CF4000P-MFC5.6             | SP000210814   | S-MFC5.6-6   |                                                                                                                                                                                                                                        |
| ◆▼ SLE 88CF4000P-MFC5.8             | SP000067773   | S-MFC5.8-8-1 |                                                                                                                                                                                                                                        |
| ◆ SLE 88CFX4000P-C                  | SP000060206   | wafer        | High end 32-bit security controller with 400-Kbyte EEPROM, 80-Kbyte ROM, 16-Kbyte RAM, ideal for virtual machine execution and for calculation of Crypto algorithm, optimized for multi-application cards with highest level security  |
| ◆ SLE 88CFX4000P-M5.1               | SP000060207   | T-M5.1-8-1   |                                                                                                                                                                                                                                        |
| ◆▼ SLE 88CFX4000P-MFC5.6            | SP000207229   | S-MFC5.6-6   |                                                                                                                                                                                                                                        |
| ◆▼ SLE 88CFX4000P-MFC5.8            | SP000207223   | S-MFC5.8-8-1 |                                                                                                                                                                                                                                        |
| ◆ SLE 88CFX4002P-C                  | SP000060214   | wafer        |                                                                                                                                                                                                                                        |
| ◆ SLE 88CFX4002P-M5.1               | SP000060215   | T-M5.1-8-1   |                                                                                                                                                                                                                                        |
| ◆ SLE 88CFX4002P-MFC5.8             | SP000060216   | S-MFC5.8-8-1 |                                                                                                                                                                                                                                        |

SMD = Surface Mounted Device

## Chip Card + Security ICs

| Type                | Ordering Code | Package      | Description                                                                                                                                                                                                                                                                                                                                |
|---------------------|---------------|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Smart Card Memories |               |              |                                                                                                                                                                                                                                                                                                                                            |
| Telecom ICs         |               |              |                                                                                                                                                                                                                                                                                                                                            |
| SLE 7736-C          | SP000060269   | wafer        | New high class Telecom IC manufactured in IMEM 2000 technology. Eurochip 77 defines the new standard for Smart Card Memories. Intelligent 237-bit EEPROM counter for > 20000 units with security logic, high security authentication and Card-Trash mechanism, data of 3rd byte are programmed by Infineon exclusively                     |
| SLE 7736-M3.2       | SP000060270   | T-M3.2-6-1   |                                                                                                                                                                                                                                                                                                                                            |
| SLE 7736-MFC3.1     | SP000228320   | S-MFC3.1-6-1 |                                                                                                                                                                                                                                                                                                                                            |
| SLE 7736E-C         | SP000009512   | wafer        |                                                                                                                                                                                                                                                                                                                                            |
| SLE 7736E-D         | SP000009513   | wafer sawn   |                                                                                                                                                                                                                                                                                                                                            |
| SLE 7736E-M3.2      | SP000009443   | T-M3.2-6-1   | New high class Telecom IC manufactured in IMEM 2000 technology. Eurochip 77 defines the new standard for Smart Card Memories. Intelligent 237-bit EEPROM counter for > 20000 units with security logic, high security authentication and Card-Trash mechanism, data of 3rd byte are programmed by the card manufacturer at personalization |
| SLE 6636-C          | SP000060267   | wafer        | Eurochip 66 take the advantage of 18 years experience in the Smart Card Memory business. Intelligent 237-bit EEPROM counter for > 20000 units with security logic, high security authentication and Card-Trash mechanism                                                                                                                   |
| SLE 6636COM-C       | SP000010098   | wafer        |                                                                                                                                                                                                                                                                                                                                            |
| SLE 6636-D          | SP000010093   | wafer sawn   |                                                                                                                                                                                                                                                                                                                                            |
| SLE 6636COM-D       | SP000010094   | wafer sawn   |                                                                                                                                                                                                                                                                                                                                            |
| SLE 6636-M3.2       | SP000010110   | T-M3.2-6-1   |                                                                                                                                                                                                                                                                                                                                            |
| SLE 6636COM-M3.2    | SP000010111   | T-M3.2-6-1   |                                                                                                                                                                                                                                                                                                                                            |
| SLE 6636-MFC3.1     | SP000010022   | S-MFC3.1-6-1 |                                                                                                                                                                                                                                                                                                                                            |
| SLE 6636COM-M3.2    | SP000010020   | S-MFC3.1-6-1 |                                                                                                                                                                                                                                                                                                                                            |
| SLE 6636E-C         | SP000101316   | wafer        |                                                                                                                                                                                                                                                                                                                                            |
| SLE 6636ECOM-D      | SP000079443   | wafer sawn   | Eurochip 66 take the advantage of 18 years experience in the Smart Card Memory business. Intelligent 237-bit EEPROM counter for > 20000 units with security logic, high security authentication and Card-Trash mechanism, 40-bit counter area including 1-bit for personalization (PROM/EEPROM)                                            |
| SLE 6636E-M3.2      | SP000204855   | T-M3.2-6-1   |                                                                                                                                                                                                                                                                                                                                            |
| SLE 6636ECOM-M3.2   | SP000214217   | T-M3.2-6-1   |                                                                                                                                                                                                                                                                                                                                            |
| SLE 6636E-MFC3.1    | SP000102643   | S-MFC3.1-6-1 |                                                                                                                                                                                                                                                                                                                                            |
| SLE 6636ECOM-MFC3.1 | SP000217141   | S-MFC3.1-6-1 |                                                                                                                                                                                                                                                                                                                                            |
| SLE 4406SPE-C       | SP000095249   | wafer        | Classic is a intelligent 112-bit EEPROM counter for > 20000 units with security logic without authentication, 40 bit for personalization data of card issuer, data of 3rd byte are programmed by the card manufacturer at personalization                                                                                                  |
| SLE 4406SPE-D       | SP000095254   | wafer sawn   |                                                                                                                                                                                                                                                                                                                                            |
| SLE 4406SPE-M3.2    | SP000095380   | T-M3.2-6-1   |                                                                                                                                                                                                                                                                                                                                            |
| SLE 4406SPE-MFC3.1  | SP000095381   | S-MFC3.1-6-1 |                                                                                                                                                                                                                                                                                                                                            |
| Datacarrier ICs     |               |              |                                                                                                                                                                                                                                                                                                                                            |
| SLE 4418-M2.2       | SP000060239   | T-M2.2-8-1   | Data Carrier 44 for identification applications (health insurance card, access control and member card), intelligent 1-Kbyte EEPROM, 24-bit ROM                                                                                                                                                                                            |
| SLE 4428-C          | SP000060240   | wafer        | Data Carrier 44 for identification applications (health insurance card, access control and member card), intelligent 1-Kbyte EEPROM, 24-bit ROM, with security code, security logic and transport key                                                                                                                                      |
| SLE 4428-M2.2       | SP000060241   | T-M2.2-8-1   |                                                                                                                                                                                                                                                                                                                                            |
| SLE 4432-C          | SP000060242   | wafer        | Data Carrier 44 for identification applications (health insurance card, access control, electronic tickest and loyalty), intelligent 256-byte EEPROM, 32-bit ROM, with byte protection, irreversible chip coding                                                                                                                           |
| SLE 4432-M3.2       | SP000060243   | T-M3.2-6-1   |                                                                                                                                                                                                                                                                                                                                            |
| SLE 4432 MFC3.1     | SP000063713   | S-MFC3.1-6-1 |                                                                                                                                                                                                                                                                                                                                            |
| SLE 4442-C          | SP000060256   | wafer        | Data Carrier 44 for identification applications (health insurance card, access control, electronic tickest and loyalty), intelligent 256-byte EEPROM, 32-bit ROM, with byte protection, irreversible chip coding, security code, security logic and transport key                                                                          |
| SLE 4442-M2.2       | SP000009848   | T-M2.2-8-1   |                                                                                                                                                                                                                                                                                                                                            |
| SLE 4442-M3.2       | SP000067536   | T-M3.2-6-1   |                                                                                                                                                                                                                                                                                                                                            |
| SLE 4442-MFC3.1     | SP000095055   | S-MFC3.1-6-1 |                                                                                                                                                                                                                                                                                                                                            |
| SLE 5532-C          | SP000222820   | wafer        | Intelligent 256-byte EEPROM with write protection function, will replace SLE 4432                                                                                                                                                                                                                                                          |
| SLE 5532-M2.2       | SP000222821   | T-M2.2-8-1   |                                                                                                                                                                                                                                                                                                                                            |
| SLE 5532-M3.2       | SP000222822   | T-M3.2-6-1   |                                                                                                                                                                                                                                                                                                                                            |
| SLE 5532-MFC3.1     | SP000222823   | S-MFC3.1-6-1 |                                                                                                                                                                                                                                                                                                                                            |
| SLE 5542-C          | SP000222824   | wafer        | Intelligent 256-byte EEPROM with write protection function and Programmable Security Code (PSC), will replace SLE 4442                                                                                                                                                                                                                     |
| SLE 5542-M2.2       | SP000222825   | T-M2.2-8-1   |                                                                                                                                                                                                                                                                                                                                            |
| SLE 5542-M3.2       | SP000222826   | T-M3.2-6-1   |                                                                                                                                                                                                                                                                                                                                            |
| SLE 5542-MFC3.1     | SP000222827   | S-MFC3.1-6-1 |                                                                                                                                                                                                                                                                                                                                            |

SMD = Surface Mounted Device

## Chip Card + Security ICs

| Type                                   | Ordering Code | Package      | Description                                                                                                                                                                                                                                                    |
|----------------------------------------|---------------|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Contactless Products</b>            |               |              |                                                                                                                                                                                                                                                                |
| <b>Contactless Security Controller</b> |               |              |                                                                                                                                                                                                                                                                |
| ◆ SLE 66CL80P-C                        | SP000060223   | wafer        | Dual interface controller with 8-Kbyte EEPROM, 70-Kbyte ROM, 2304-byte RAM in 0.22 µm technology, ideal for multi-application cards using security with 3DES or Elliptic curve calculations for e.g. e-purse, identification and transportation                |
| ◆▼ SLE 66CL80P-NB                      | SP000060225   | wafer sawn   |                                                                                                                                                                                                                                                                |
| ◆ SLE 66CL80P-M8.4                     | SP000067534   | P-M8.4-8-1   |                                                                                                                                                                                                                                                                |
| ◆ SLE 66CLX320P-C                      | SP000060231   | wafer        | Dual interface controller with 32-Kbyte EEPROM, 136-Kbyte ROM, 5052-byte RAM incl. Crypto RAM in 0.22 µm technology, ideal for multi-application cards requiring a high level of security, suitable for all applications                                       |
| ◆ SLE 66CLX320P-M8.4                   | SP000060232   | P-M8.4-8-1   |                                                                                                                                                                                                                                                                |
| ◆ SLE 66CLX320P-MCC8                   | SP000009480   | P-MCC8-2-1   |                                                                                                                                                                                                                                                                |
| ◆ SLE 66CL81P-C                        | SP000060226   | wafer        | Contactless controller with 8-Kbyte EEPROM, 72-Kbyte ROM, 2304-byte RAM in 0.22 µm technology, optimized for pure contactless single-/multi-application cards with 3DES or Elliptic curve calculations for e.g. e-purse, identification and transportation     |
| ◆▼ SLE 66CL81P-NB                      | SP000067777   | wafer sawn   |                                                                                                                                                                                                                                                                |
| ◆ SLE 66CL81P-MCC8                     | SP000060230   | P-MCC8-2-1   |                                                                                                                                                                                                                                                                |
| ◆ SLE 66CLX321P-C                      | SP000060233   | wafer        | Contactless controller with 32-Kbyte EEPROM, 136-Kbyte ROM, 5052-byte incl. Crypto RAM in 0.22 µm technology, optimized for pure contactless single-/multi-application cards with 3DES, RSA or Elliptic curve calculations for e.g. banking and identification |
| ◆ SLE 66CLX321P-MCC8                   | SP000060234   | P-MCC8-2-1   |                                                                                                                                                                                                                                                                |
| ◆ SLE 66CLX640P-C                      | SP000060235   | wafer        | Dual interface controller with 64-Kbyte EEPROM, 136-Kbyte ROM, 5052-byte incl. Crypto RAM in 0.22 µm technology, ideal for multi-application cards requiring a high level of security, suitable for all applications                                           |
| ◆ SLE 66CLX640P-M8.4                   | SP000067542   | T-M8.4-8-1   |                                                                                                                                                                                                                                                                |
| ◆ SLE 66CLX641P-C                      | SP000060236   | wafer        | Contactless controller with 64-Kbyte EEPROM, 136-Kbyte ROM, 5052-byte incl. Crypto RAM in 0.22 µm technology, optimized for pure contactless single-/multi-application cards with 3DES, RSA or Elliptic curve calculations for e.g. banking and identification |
| ◆▼ SLE 66CLX641P-M                     | SP000017196   | wafer        |                                                                                                                                                                                                                                                                |
| ◆ SLE 66CLX641P-MCC8                   | SP000018099   | P-MCC8-2-1   |                                                                                                                                                                                                                                                                |
| ◆▼ SLE 66CLX641P-MFC5.8                | SP000060237   | S-MFC5.8-8-1 |                                                                                                                                                                                                                                                                |

SMD = Surface Mounted Device

## Chip Card + Security ICs

| Type | Ordering Code | Package | Description |
|------|---------------|---------|-------------|
|------|---------------|---------|-------------|

### Contactless Products

#### Contactless Memories my-d™ vicinity

|                         |             |             |                                                                                                                                                                                                        |
|-------------------------|-------------|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ◆▼ SRF 55V01P-NB        | SP000219049 | wafer sawn  | Intelligent 576-bit EEPROM with contactless interface complying to ISO/IEC 18000-3 mode 1 ISO compliant mode                                                                                           |
| ◆ SRF 55V02P-C          | SP000009363 | wafer       | Intelligent 2-Kbit EEPROM with contactless interface complying to ISO/IEC 15693 and security logic                                                                                                     |
| ◆ SLE 55V02P-NB         | SP000009489 | wafer sawn  |                                                                                                                                                                                                        |
| ◆ SRF 55V02P-MCC2       | SP000009367 | P-MCC2-2-1  |                                                                                                                                                                                                        |
| ◆ SRF 55V02P-MFCC1      | SP000010033 | S-MFCC1-2-1 |                                                                                                                                                                                                        |
| ◆ SRF 55V02P-S-Y1.0     | SP000009372 | S-Y1.0-2-1  |                                                                                                                                                                                                        |
| ◆ SRF 55V02S-C          | SP000009364 | wafer       | Intelligent 2-Kbit EEPROM with contactless interface complying to ISO/IEC 15693 and security logic, security algorithm, 64-bit key length, selective memory access control, 32-bit MAC, transport key  |
| ◆ SRF 55V02S-NB         | SP000009491 | wafer sawn  |                                                                                                                                                                                                        |
| ◆ SRF 55V02S-MCC2       | SP000009368 | P-MCC2-2-1  |                                                                                                                                                                                                        |
| ◆ SRF 55V02S-MFCC1      | SP000010034 | S-MFCC1-2-1 |                                                                                                                                                                                                        |
| ◆ SRF 55V02S-S-Y1.0     | SP000009373 | S-Y1.0-2-1  |                                                                                                                                                                                                        |
| ◆ SRF 55V02S-S-Y2.0     | SP000009374 | S-Y2.0-2-1  | Intelligent 10-Kbit EEPROM with contactless interface complying to ISO/IEC 15693 and security logic                                                                                                    |
| ◆ SRF 55V10P-C          | SP000009362 | wafer       |                                                                                                                                                                                                        |
| ◆ SRF 55V10P-NB         | SP000009490 | wafer sawn  |                                                                                                                                                                                                        |
| ◆ SRF 55V10P-MCC2       | SP000009365 | P-MCC2-2-1  |                                                                                                                                                                                                        |
| ◆ SRF 55V10P-MFCC1      | SP000010035 | S-MFCC1-2-1 |                                                                                                                                                                                                        |
| ◆ SRF 55V10S-C          | SP000009289 | wafer       | Intelligent 10-Kbit EEPROM with contactless interface complying to ISO/IEC 15693 and security logic, security algorithm, 64-bit key length, selective memory access control, 32-bit MAC, transport key |
| ◆ SRF 55V10S-NB         | SP000009290 | wafer sawn  |                                                                                                                                                                                                        |
| ◆ SRF 55V10S-MCC2       | SP000009366 | P-MCC2-2-1  |                                                                                                                                                                                                        |
| ◆ SRF 55V10S-MFCC1      | SP000010036 | S-MFCC1-2-1 |                                                                                                                                                                                                        |
| ◆ SRF 55V10S-S-Y1.0     | SP000009371 | S-Y1.0-2-1  |                                                                                                                                                                                                        |
| ◆ SRF 55V10S-S-Y2.0     | SP000009376 | S-Y2.0-2-1  | Intelligent 10-Kbit EEPROM with contactless interface complying to ISO/IEC 18000-3 Mode 2, PJM item tag                                                                                                |
| ◆▼ SRF 66V10IT-NB       | SP000010136 | wafer       |                                                                                                                                                                                                        |
| ◆▼ SRF 66V10ST-NB       | SP000206820 | wafer sawn  | Intelligent 10-Kbit EEPROM with contactless interface enhancement of ISO/IEC 18000-3 Mode 2, stack tag                                                                                                 |
| ◆ my-d vicinity eva kit | SP000010087 | —           | Evaluation kit for my-d™ vicinity products                                                                                                                                                             |

#### Contactless Memories my-d™ proximity

|                  |             |            |                                                                                                              |
|------------------|-------------|------------|--------------------------------------------------------------------------------------------------------------|
| ◆▼ SLE 55R04     | SP000008645 | wafer      | Intelligent 770-byte EEPROM with contactless interface complying to ISO/IEC 14443 type A and security logic  |
| ◆ SLE 55R04-NB   | SP000076154 | wafer sawn |                                                                                                              |
| ◆ SLE 55R04-MCC2 | SP000008803 | P-MCC2-2-1 |                                                                                                              |
| ◆ SLE 55R16-C    | SP000107208 | wafer      | Intelligent 2560-byte EEPROM with contactless interface complying to ISO/IEC 14443 type A and security logic |

#### Infineon MIFARE®

|                   |             |             |                                                                                                             |
|-------------------|-------------|-------------|-------------------------------------------------------------------------------------------------------------|
| ◆ SLE 66R35-C     | SP000009422 | wafer       | Intelligent 1-Kbyte Memory chip with interface for contactless transmission according to the MIFARE®-system |
| ◆ SLE 66R35-NB    | SP000009425 | wafer sawn  |                                                                                                             |
| ◆ SLE 66R35-MCC2  | SP000009450 | P-MCC2-2-1  |                                                                                                             |
| ◆ SLE 66R35-MCC8  | SP000009487 | P-MCC8-2-1  |                                                                                                             |
| ◆ SLE 66R35-MFCC1 | SP000010024 | S-MFCC1-2-1 |                                                                                                             |

SMD = Surface Mounted Device

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## Plastic Optical Fiber Components

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|                                |     |
|--------------------------------|-----|
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|--------------------------------|-----|

# Plastic Optical Fiber Components

| Type | Ordering Code | $\Phi_{in}$<br>Plastic Fibre<br>$\mu W$ | $\lambda_{peak}$<br>nm | $t_r$<br>$\mu s$ | $t_f$<br>$\mu s$ |
|------|---------------|-----------------------------------------|------------------------|------------------|------------------|
|------|---------------|-----------------------------------------|------------------------|------------------|------------------|

## Plastic Fiber Components

### Light-Link Diodes (Emitter)

(polished fiber ends;  $I_F = 10 \text{ mA}$ )

|         |             |                    |     |     |     |
|---------|-------------|--------------------|-----|-----|-----|
| SFH 756 | SP000063802 | 200 ( $\geq 100$ ) | 660 | 0.1 | 0.1 |
| SFH 757 | SP000063871 | 150 ( $\geq 100$ ) | 650 | 15  | 18  |

### Light-Link Diodes (Emitter) with Screw Connection

|           |             |                    |     |     |     |
|-----------|-------------|--------------------|-----|-----|-----|
| SFH 756 V | SP000063814 | 200 ( $\geq 100$ ) | 660 | 0.1 | 0.1 |
| SFH 757 V | SP000063858 | 150 ( $\geq 100$ ) | 650 | 15  | 18  |

| Type | Ordering Code | $I_p$<br>$V_R = 5 \text{ V}$<br>$\Phi_{in} = 10 \mu W$<br>$\mu A$ | $\lambda_{Smax}$<br>nm | $V_{Rmax}$<br>V |
|------|---------------|-------------------------------------------------------------------|------------------------|-----------------|
|------|---------------|-------------------------------------------------------------------|------------------------|-----------------|

### Light-Link Diode (Detector)

|         |             |                                    |     |    |
|---------|-------------|------------------------------------|-----|----|
| SFH 250 | SP000063866 | 3.0 ( $\lambda = 660 \text{ nm}$ ) | 850 | 30 |
|---------|-------------|------------------------------------|-----|----|

### Light-Link Diode (Detector) with Screw Connection

|           |             |                                    |     |    |
|-----------|-------------|------------------------------------|-----|----|
| SFH 250 V | SP000063852 | 3.0 ( $\lambda = 660 \text{ nm}$ ) | 850 | 30 |
|-----------|-------------|------------------------------------|-----|----|

| Type | Ordering Code | $I_{CE}$<br>$\mu A$ | $\lambda_{Smax}$<br>nm | $V_{CEO}$<br>V |
|------|---------------|---------------------|------------------------|----------------|
|------|---------------|---------------------|------------------------|----------------|

### Light-Link Transistor (Detector)

|         |             |                                    |     |    |
|---------|-------------|------------------------------------|-----|----|
| SFH 350 | SP000063861 | 0.8 ( $\lambda = 660 \text{ nm}$ ) | 850 | 50 |
|---------|-------------|------------------------------------|-----|----|

### Light-Link Transistor (Detector) with Screw Connection

|           |             |                                    |     |    |
|-----------|-------------|------------------------------------|-----|----|
| SFH 350 V | SP000063853 | 0.8 ( $\lambda = 660 \text{ nm}$ ) | 850 | 50 |
|-----------|-------------|------------------------------------|-----|----|

| Type | Ordering Code | Transmission Rate<br>Mbit/s | $\Phi_{opt}^{1)}$<br>$\mu W$ | $t_{PHL}, t_{PLH}$<br>ns |
|------|---------------|-----------------------------|------------------------------|--------------------------|
|------|---------------|-----------------------------|------------------------------|--------------------------|

### Light-Link Digital Emitter (TTL Compatible, open Collector)

|             |             |   |            |              |
|-------------|-------------|---|------------|--------------|
| SFH 551/1-1 | SP000063860 | 5 | 6 ... 1000 | < 100, < 250 |
|-------------|-------------|---|------------|--------------|

### Light-Link Digital Emitter (TTL Compatible) with Screw Connection

|              |             |   |            |              |
|--------------|-------------|---|------------|--------------|
| SFH 551/1-1V | SP000063855 | 5 | 6 ... 1000 | < 100, < 250 |
|--------------|-------------|---|------------|--------------|

1) Optical output for "Low" measured at fibre end

## Plastic Optical Fiber Components

| Type                                              | Ordering Code | Description                                                                                                                                                                                                                                                                                                                                                   |
|---------------------------------------------------|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Plastic Fiber Components</b>                   |               |                                                                                                                                                                                                                                                                                                                                                               |
| <b>MOST®-Optical POF Transmitter and Receiver</b> |               |                                                                                                                                                                                                                                                                                                                                                               |
| ▼ SPF MIR 003 02                                  | SP000063793   | Infineon's MOST® (Media Oriented Systems Transport) is a high-end POF receiver for in-car entertainment and information system, 50 Mbit/s, 650 nm LED and Si-detectors, 5 V, tube                                                                                                                                                                             |
| ▼ SPF MIT 003 02                                  | SP000063798   | Infineon's MOST® (Media Oriented Systems Transport) is a high-end POF transmitter for in-car entertainment and information system, 50 Mbit/s, 650 nm LED and Si-detectors, 5 V, tube                                                                                                                                                                          |
| ▼ SPF MIR 401                                     | SP000085239   | Infineon's MOST® (Media Oriented Systems Transport) is a high-end POF receiver with extended temperature range (–40°C to 95°C) for in-car entertainment and information system, 50 Mbit/s, 650 nm LED and Si-detectors, 5 V (3.3 V on request), compliant to MOST PHY1.1, tube                                                                                |
| ▼ SPF MIT 401                                     | SP000085139   | Infineon's MOST® (Media Oriented Systems Transport) is a high-end POF transmitter with extended temperature range (–40°C to 95°C) for in-car entertainment and information system, 50 Mbit/s, 650 nm LED and Si-detectors, 5 V (3.3 V on request), compliant to MOST PHY1.1, tube                                                                             |
| ▼ SPF MIT 401+                                    | SP000105135   | Infineon's MOST® (Media Oriented Systems Transport) is a high-end POF transmitter with extended temperature range (–40°C to 95°C) and enhanced functionality for use in combination with the SMSC NIC OS8104, for in-car entertainment and information system, 50 Mbit/s, 650 nm LED and Si-detectors, 5 V (3.3 V on request), compliant to MOST PHY1.1, tube |



## Summary of Types

| Type               | Ordering Code | Page | Type                     | Ordering Code | Page |
|--------------------|---------------|------|--------------------------|---------------|------|
| <b>Numerics</b>    |               |      | BA 892-02V 10k           | SP000013175   | 122  |
| 2ED020I12F         | SP000014669   | 89   | BA 892-02V 3k            | SP000013174   | 122  |
| 2ED020I12F         | SP000107512   | 89   | BA 892-02V 8k            | SP000104706   | 122  |
|                    |               |      | BA 895 3k                | SP000012458   | 122  |
|                    |               |      | BAL 74 3k                | SP000014992   | 103  |
|                    |               |      | BAL 99 10k               | SP000010161   | 103  |
|                    |               |      | BAL 99 3k                | SP000010159   | 103  |
|                    |               |      | BAR 14-1 (Dual) 3k       | SP000010164   | 122  |
| ADM 5120 PX AB T2  | SP000081012   | 19   | BAR 15-1 (Dual) 3k       | SP000010163   | 122  |
| ADM 5120 X AB T2-G | SP000078983   | 19   | BAR 16-1 (Dual) 3k       | SP000010165   | 122  |
| ADM 6992 CX AB T1  | SP000076431   | 19   | BAR 50-02L 15k           | SP000013603   | 122  |
| ADM 6992 FX AB T1  | SP000077768   | 19   | BAR 50-02V 3k            | SP000012921   | 122  |
| ADM 6992 KX AB T1  | SP000076432   | 19   | BAR 61 (Triple) 3k       | SP000010169   | 122  |
| ADM 6992 SX AB T1  | SP000223283   | 19   | BAR 63-02L 15k           | SP000013537   | 122  |
| ADM 6992 X AD T1   | SP000076445   | 19   | BAR 63-02L 50k           | SP000013538   | 122  |
| ADM 6993 FX AD T1  | SP000016437   | 19   | BAR 63-02V 3k            | SP000010162   | 122  |
| ADM 6993 X AD T1   | SP000076438   | 19   | BAR 63-02W 10k           | SP000010171   | 123  |
| ADM 6995 LCX AD T1 | SP000219864   | 19   | BAR 63-02W 3k            | SP000010170   | 123  |
| ADM 6996 FCX AD R1 | SP000229744   | 19   | BAR 63-02W 8k            | SP000104697   | 123  |
| ADM 6996 FCX AD T1 | SP000219863   | 19   | BAR 63-03W (Dual) 10k    | SP000010173   | 123  |
| ADM 6996 HX AD T1  | SP000220561   | 20   | BAR 63-03W (Dual) 3k     | SP000010172   | 123  |
| ADM 6996 IX AD T1  | SP000219861   | 19   | BAR 63-04 (Dual) 3k      | SP000012206   | 123  |
| ADM 6996 LCX AD R1 | SP000228446   | 20   | BAR 63-04W (Dual) 3k     | SP000010174   | 123  |
| ADM 6996 LCX AD T1 | SP000219862   | 20   | BAR 63-05 (Dual) 10k     | SP000012210   | 123  |
| ADM 6996 MX AD T1  | SP000210310   | 20   | BAR 63-05 (Dual) 3k      | SP000012207   | 123  |
| ADM 6999 GX A2 T1  | SP000076440   | 20   | BAR 63-05W (Dual) 3k     | SP000010175   | 123  |
| ADM 6999 UX A2 T1  | SP000076439   | 20   | BAR 63-06 (Dual) 3k      | SP000012208   | 123  |
| ADM 6999 X A2 T1   | SP000076443   | 20   | BAR 63-06W (Dual) 3k     | SP000010176   | 123  |
| ADM 7001 X AC R1   | SP000083260   | 20   | BAR 64-02LRH 15k         | SP000051041   | 123  |
| ADM 7001 X AC T1   | SP000076255   | 20   | BAR 64-02LRH 50k         | SP000083331   | 123  |
| ADM 8262 X AC T1   | SP000208914   | 21   | BAR 64-02V 3k            | SP000010361   | 123  |
| ADM 8266 A21       | SP000098969   | 21   | BAR 64-02V 8k            | SP000104696   | 123  |
| ADM 8266M A21      | SP000098970   | 21   | BAR 64-03W 3k            | SP000010179   | 123  |
| ADM 8511 X CC T1   | SP000076521   | 19   | BAR 64-04 (Dual) 3k      | SP000012211   | 123  |
| ADM 8513 X AD T1   | SP000077769   | 19   | BAR 64-04W (Dual) 3k     | SP000010180   | 123  |
| ADM 8515X AC T1    | SP000064377   | 19   | BAR 64-05 (Dual) 10k     | SP000012214   | 123  |
| ADM 8668 FX A12-G  | SP000208946   | 19   | BAR 64-05 (Dual) 3k      | SP000012212   | 123  |
| ADM 8668 TX A12    | SP000208947   | 19   | BAR 64-05W (Dual) 10k    | SP000010183   | 123  |
| AN 983 BLX BG TV1  | SP000076446   | 19   | BAR 64-05W (Dual) 3k     | SP000010181   | 123  |
| AN 983 BX BG TV1   | SP000075554   | 19   | BAR 64-06 (Dual) 3k      | SP000012213   | 123  |
| AN 983 BX BG TV3   | SP000103413   | 19   | BAR 64-06W (Dual) 3k     | SP000010182   | 123  |
| AN 983X AH T 21    | SP000078897   | 19   | BAR 64-07 (Dual) 3k      | SP000010184   | 123  |
| AN 983X AH T 22    | SP000078898   | 19   | BAR 65-02L 15k           | SP000013542   | 123  |
| AN 985 BX BG TV1   | SP000076447   | 19   | BAR 65-02V 3k            | SP000010359   | 123  |
|                    |               |      | BAR 65-03W 3k            | SP000010186   | 123  |
|                    |               |      | BAR 66                   | SP000010187   | 125  |
|                    |               |      | BAR 67-02V 3k            | SP000010369   | 123  |
|                    |               |      | BAR 74 3k                | SP000010202   | 103  |
| BA 592 10k         | SP000010142   | 122  | BAR 81W 3k               | SP000010192   | 121  |
| BA 592 3k          | SP000010141   | 122  | BAR 88-02LRH 15k         | SP000051042   | 123  |
| BA 595 10k         | SP000010148   | 122  | BAR 88-02LRH 50k         | SP000083408   | 123  |
| BA 595 10x3k       | SP000095921   | 122  | BAR 88-02V 3k            | SP000013484   | 123  |
| BA 595 3k          | SP000010146   | 122  | BAR 88-02V 8k            | SP000104695   | 123  |
| BA 885 3k          | SP000010151   | 122  | BAR 88-07LRH (Dual) 15k  | SP000053489   | 123  |
| BA 892 10k         | SP000010158   | 122  | BAR 88-098LRH (Dual) 15k | SP000053490   | 123  |
| BA 892 3k          | SP000010154   | 122  | BAR 88-099LRH 15k        | SP000053491   | 123  |
| BA 892 8k          | SP000104705   | 122  | BAR 89-02LRH 15k         | SP000051043   | 123  |
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| BAR 90-098LRH (Dual) 15k | SP000053484   | 123  | BAS 70-05 (Dual) 3k    | SP000010252   | 105  |
| BAR 90-099LRH 15k        | SP000053485   | 123  | BAS 70-05W (Dual) 3k   | SP000010250   | 105  |
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| BAS 116 3k               | SP000010194   | 103  | BAS 70-06 (Dual) 3k    | SP000010254   | 105  |
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| BAS 40-05 (Dual) 10k     | SP000010242   | 105  | BAT 54W (Dual) 3k      | SP000233431   | 106  |
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| TLE 6286G      | SP000065801   | 94   | TUA 6034 T ISDB -T Reference Tuner     | on request    | 24   |
| TLE 6287GP     | SP000014090   | 89   | TUA 6034 T ISDB-T Evaboard             | on request    | 24   |
| TLE 6288R      | SP000013727   | 83   | TUA 6034 T+TDA 6192 T HALF NIM         | on request    | 24   |
| TLE 6289GP     | SP000014724   | 89   | TUA 6034 V                             | SP000017969   | 23   |
| TLE 6361G      | SP000013297   | 93   | TUA 6034 V Evaboard                    | on request    | 24   |
| TLE 6363G      | SP000014251   | 93   | TUA 60342 V Mini Half NIM              | on request    | 24   |
| TLE 6365G      | SP000013455   | 93   | TUA 6036 T                             | SP000014627   | 23   |
| TLE 6368G1     | SP000015046   | 93   | TUA 6036 T Evaboard                    |               | 24   |
| TLE 6368R      | SP000014666   | 93   | TUA 6041                               | SP000018085   | 23   |
| TLE 6389G 50   | SP000015002   | 93   | TUA 6045                               | SP000018086   | 23   |
| TLE 6389G 50-1 | SP000015001   | 93   | TUA6041 Evaboard                       | on request    | 24   |
| TLE 6389GV     | SP000013787   | 93   | TUA6041 Ref Tuner UHF                  | on request    | 24   |
| TLE 6710Q      | SP000013708   | 95   | TUA6045 Evaboard ATSC                  | on request    | 24   |
| TLE 6711G      | SP000012787   | 95   | TUA6045 Evaboard DVB-T                 | on request    | 24   |
| TLE 6712G      | SP000013710   | 95   | TUA6045 Evaboard ISDB-T                | on request    | 24   |
| TLE 6714G      | SP000013709   | 95   | TUA6045 Evaboard T-DMB                 | on request    | 24   |
| TLE 7209-2R    | SP000014748   | 89   | TUA6045 Ref Tuner T-DMB/DAB (BAND III) | on request    | 24   |
| TLE 7230G      | SP000067169   | 83   |                                        |               |      |
| TLE 7230R      | SP000067170   | 83   |                                        |               |      |
| TLE 7232G      | SP000089034   | 83   |                                        |               |      |
| TLE 7259G      | SP000017461   | 94   |                                        |               |      |
| TLE 7270D      | SP000014700   | 92   |                                        |               |      |
| TLE 7270G      | SP000055309   | 92   |                                        |               |      |
| TLE 7272D      | SP000055847   | 92   |                                        |               |      |

