

# FETs, IPD, IGBTs, GaAs MMICs

## Power Transistor Arrays (F-MOS FETs)

| Application                              | Part No.            | Absolute Maximum Ratings (T <sub>C</sub> = 25 °C) |                         |                       |                       | Electrical Characteristics (T <sub>a</sub> = 25 °C) |                                  |                                  |                                |                                     | Package  |     |
|------------------------------------------|---------------------|---------------------------------------------------|-------------------------|-----------------------|-----------------------|-----------------------------------------------------|----------------------------------|----------------------------------|--------------------------------|-------------------------------------|----------|-----|
|                                          |                     | V <sub>DSS</sub><br>(V)                           | V <sub>GSS</sub><br>(V) | I <sub>D</sub><br>(A) | P <sub>D</sub><br>(W) | R <sub>DS(on)</sub><br>max.<br>(mΩ)                 | Y <sub>fs</sub>  <br>typ.<br>(S) | t <sub>on</sub><br>typ.*<br>(ns) | t <sub>r</sub><br>typ.<br>(ns) | t <sub>d(off)</sub><br>typ.<br>(ns) |          |     |
| Non-contact solenoid drive. Motor drive. | PUB4753<br>(PU7457) | 100 ± 5                                           | ± 20                    | ± 3                   | 15                    | 450/600◆                                            | 4                                | 0.2                              | 0.3                            | 1.5                                 | SIP10-A1 | D93 |
| Control equipment                        | PUB4701             | 150*                                              | ± 20*                   | ± 6*                  | 15*                   | 0.6*/0.7*◆                                          | 5.3*                             | 10*                              | 8.5*                           | 290*                                |          |     |
| switching equipment.                     | PUB4702             | 35 ± 10*                                          | ± 15*                   | ± 1*                  |                       | 380/680*◆                                           | 1*                               | 120*                             | 390*                           | 800*                                |          |     |

\*: T<sub>a</sub>=25 °C ◆: Rating of low voltage drive (V<sub>GS</sub> = 4 V)

## Silicon Junction FETs

| Application                               | Package (Package No.) |                               |                        |                                            |                               |                                |                                                 |                     | Absolute Maximum Ratings<br>(T <sub>a</sub> = 25 °C)                 |                        | Electrical Characteristics<br>(T <sub>a</sub> = 25 °C) |                                  |
|-------------------------------------------|-----------------------|-------------------------------|------------------------|--------------------------------------------|-------------------------------|--------------------------------|-------------------------------------------------|---------------------|----------------------------------------------------------------------|------------------------|--------------------------------------------------------|----------------------------------|
|                                           | ML3-N2<br>(D1)        | SSSMini3<br>-F1<br>(D5)       | SSMini3-<br>F2<br>(D9) | SMini3-<br>G1<br>(D17)                     | MiniT3-F1<br>(D27)            | Mini3-G1<br>(D26)              | NS-A1/<br>NS-B1<br>(D61/D62)                    | TO-92-A1<br>(D56)   | V <sub>DSO</sub><br>*V <sub>GDS</sub><br>(V)                         | I <sub>D</sub><br>(mA) | NV *NF<br>max. *typ.<br>(mV)                           | I <sub>DSS</sub><br>max.<br>(mA) |
| General-use<br>low-frequency<br>amplifier | —                     | —                             | —                      | 2SJ0364<br>(2SJ364)                        | —                             | 2SK1103<br>2SJ0163<br>(2SJ163) | 2SK1104<br>2SJ0164<br>(2SJ164)                  | —                   | *-65<br>*65                                                          | 20<br>-20              | —                                                      | 6<br>-6                          |
| General-use                               | —                     | —                             | 2SK2593                | 2SK0662<br>(2SK662)<br>2SK0663<br>(2SK663) | —                             | 2SK0198<br>(2SK198)            | —                                               | 2SK0301<br>(2SK301) | V <sub>GDO</sub> -30<br>V <sub>GDO</sub> -55<br>V <sub>GDO</sub> -55 | 20<br>30<br>30         | *60<br>**2.5 dB<br>**0.5 dB                            | 12<br>20<br>20                   |
| Capacitor<br>microphone                   | 2SK3578               | 2SK3372<br>2SK3585<br>2SK3426 | —                      | —                                          | 2SK1860<br>2SK3584<br>2SK3427 | 2SK0123<br>(2SK123)<br>2SK3583 | 2SK0065 <sup>1)</sup><br>(2SK65 <sup>1)</sup> ) | —                   | 20<br>20<br>20<br>-12                                                | 2<br>0.1<br>2<br>2     | 0.004<br>0.004<br>0.01<br>0.004                        | 0.4<br>0.47<br>0.4<br>0.8        |
| Infrared<br>sensor                        | —                     | Δ 2SK3396                     | 2SK2380                | —                                          | —                             | 2SK1842<br>2SK2751             | —                                               | —                   | V <sub>GDO</sub> -40<br>*-40                                         | 1<br>10                | C <sub>iss</sub> *1 pF<br>—                            | 0.2<br>4.7                       |

Δ: Tentative 1) S-A1 (D61)

Note) In the tables, part numbers show the Matsushita unified part numbers. And the part numbers in parentheses show the conventional ones.