

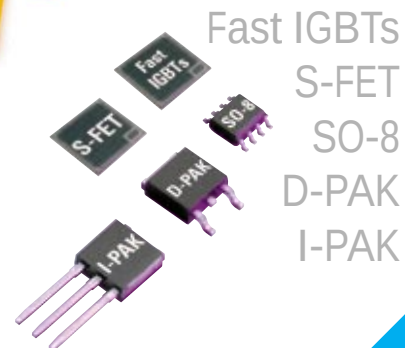
# SIEMENS

## Power is our Core Competence

# New!

## Power Semiconductors

MOS Transistors  
IGBTs  
Duo-Packs  
FREDs



# MOS-Transistors in alphanumeric order

| Type                                                                                        | $V_{DS}$ [V] | $R_{DS(on)}$ [ $\Omega$ ] | $V_{GS(th)}$ [V] | $I_D$ [A] | Package |
|---------------------------------------------------------------------------------------------|--------------|---------------------------|------------------|-----------|---------|
| BS 107                                                                                      | 200          | 26.00                     | 0.8... 2.0       | 0.13      | TO-92   |
| BS 170                                                                                      | 60           | 5.00                      | 0.8... 2.0       | 0.30      | TO-92   |
| BSO 307N                                                                                    | 30           | 0.075                     | 1.2... 2.0       | 4.2       | SO-8    |
| BSO 615N                                                                                    | 60           | 0.15                      | 1.2... 2.0       | 2.6       | SO-8    |
| BSO 615NV                                                                                   | 60           | 0.12                      | 2.1... 4.0       | 3.1       | SO-8    |
| BSP 88                                                                                      | 240          | 8.00                      | 0.6... 1.2       | 0.32      | SOT-223 |
| BSP 89                                                                                      | 240          | 6.00                      | 0.8... 2.0       | 0.36      | SOT-223 |
| BSP 92                                                                                      | -240         | 20.00                     | -2.0...-0.8      | -0.20     | SOT-223 |
| BSP 123                                                                                     | 100          | 6.00                      | 0.8... 2.0       | 0.38      | SOT-223 |
| BSP 125                                                                                     | 600          | 45.00                     | 1.5... 2.5       | 0.12      | SOT-223 |
| BSP 129                                                                                     | 240          | 20.00                     | -1.8...-0.7      | 0.25      | SOT-223 |
| BSP 135                                                                                     | 600          | 60.00                     | -1.8...-0.7      | 0.10      | SOT-223 |
| BSP 149                                                                                     | 200          | 3.50                      | -1.8...-0.7      | 0.48      | SOT-223 |
| BSP 170                                                                                     | -60          | 0.35                      | -4.0...-2.1      | -1.70     | SOT-223 |
| BSP 171                                                                                     | -60          | 0.35                      | -2.0...-0.8      | -1.70     | SOT-223 |
| BSP 295                                                                                     | 50           | 0.30                      | 0.8... 2.0       | 1.80      | SOT-223 |
| BSP 296                                                                                     | 100          | 0.80                      | 0.8... 2.0       | 1.00      | SOT-223 |
| BSP 297                                                                                     | 200          | 2.00                      | 0.8... 2.0       | 0.65      | SOT-223 |
| BSP 298                                                                                     | 400          | 3.00                      | 2.1... 4.0       | 0.50      | SOT-223 |
| BSP 299                                                                                     | 500          | 4.00                      | 2.1... 4.0       | 0.40      | SOT-223 |
| BSP 300                                                                                     | 800          | 20.00                     | 2.1... 4.0       | 0.19      | SOT-223 |
| BSP 315                                                                                     | -50          | 0.80                      | -2.0...-0.8      | -1.10     | SOT-223 |
| BSP 316                                                                                     | -100         | 2.20                      | -2.0...-0.8      | -0.65     | SOT-223 |
| BSP 317                                                                                     | -200         | 6.00                      | -2.0...-0.8      | -0.37     | SOT-223 |
| BSP 318S                                                                                    | 60           | 0.15                      | 1.2... 2.0       | 2.60      | SOT-223 |
| BSP 319  | 50           | 0.07                      | 1.2... 2.0       | 3.80      | SOT-223 |
| BSP 320S                                                                                    | 60           | 0.12                      | 2.1... 4.0       | 2.90      | SOT-223 |
| BSP 324                                                                                     | 400          | 25.00                     | 1.5... 2.5       | 0.17      | SOT-223 |
| BSP 372                                                                                     | 100          | 0.31                      | 0.8... 2.0       | 1.70      | SOT-223 |
| BSP 373                                                                                     | 100          | 0.30                      | 2.1... 4.0       | 1.70      | SOT-223 |
| BSS 84                                                                                      | -50          | 10.00                     | -2.0... 0.8      | -0.13     | SOT-23  |
| BSS 87                                                                                      | 240          | 6.00                      | 0.8... 2.0       | 0.29      | SOT-89  |
| BSS 88                                                                                      | 240          | 8.00                      | 0.6... 1.2       | 0.25      | TO-92   |
| BSS 89                                                                                      | 240          | 6.00                      | 0.8... 2.0       | 0.29      | TO-92   |
| BSS 92                                                                                      | -240         | 20.00                     | -2.0...-0.8      | -0.10     | TO-92   |
| BSS 98                                                                                      | 50           | 3.50                      | 0.8... 1.6       | 0.30      | TO-92   |
| BSS 100                                                                                     | 100          | 6.00                      | 0.8... 2.0       | 0.22      | TO-92   |
| BSS 101                                                                                     | 240          | 16.00                     | 0.8... 2.0       | 0.13      | TO-92   |
| BSS 110                                                                                     | -50          | 10.00                     | -2.0...-0.8      | -0.1      | TO-92   |
| BSS 119                                                                                     | 100          | 6.00                      | 1.6... 2.6       | 0.17      | SOT-23  |
| BSS 123                                                                                     | 100          | 6.00                      | 0.8... 2.0       | 0.17      | SOT-23  |
| BSS 124                                                                                     | 400          | 28.00                     | 1.5... 2.5       | 0.12      | TO-92   |
| BSS 125                                                                                     | 600          | 45.00                     | 1.5... 2.5       | 0.10      | TO-92   |
| BSS 129                                                                                     | 240          | 20.00                     | -1.8...-0.7      | 0.15      | TO-92   |
| BSS 131                                                                                     | 240          | 16.00                     | 0.8... 2.0       | 0.10      | SOT-23  |
| BSS 135                                                                                     | 600          | 60.00                     | -1.8...-0.7      | 0.08      | TO-92   |
| BSS 138                                                                                     | 50           | 3.50                      | 0.8... 1.6       | 0.22      | SOT-23  |
| BSS 139                                                                                     | 250          | 100.00                    | -1.8...-0.7      | 0.04      | SOT-23  |
| BSS 145                                                                                     | 65           | 3.50                      | 1.4... 2.3       | 0.22      | SOT-23  |
| BSS 149                                                                                     | 200          | 3.50                      | -1.8...-0.7      | 0.35      | TO-92   |
| BSS 159                                                                                     | 50           | 8.00                      | -3.0...-1.5      | 0.16      | SOT-23  |
| BSS 169                                                                                     | 100          | 12.00                     | -3.0...-1.5      | 0.12      | SOT-23  |

| Type                                                                                         | $V_{DS}$ [V] | $R_{DS(on)}$ [ $\Omega$ ] | $V_{GS(th)}$ [V] | $I_D$ [A] | Package |
|----------------------------------------------------------------------------------------------|--------------|---------------------------|------------------|-----------|---------|
| BSS 192                                                                                      | -240         | 20.00                     | -2.0...-0.8      | -0.15     | SOT-89  |
| BSS 229                                                                                      | 250          | 100.00                    | -1.8...-0.7      | 0.07      | TO-92   |
| BSS 284                                                                                      | -50          | 10.00                     | -1.6... 0.8      | -0.13     | SOT-23  |
| BSS 295                                                                                      | 50           | 0.30                      | 0.8... 2.0       | 1.40      | TO-92   |
| BSS 296                                                                                      | 100          | 0.80                      | 0.8... 2.0       | 0.80      | TO-92   |
| BSS 297                                                                                      | 200          | 2.00                      | 0.8... 2.0       | 0.48      | TO-92   |
| BSS 7728                                                                                     | 60           | 7.50                      | 1.0... 2.5       | 0.15      | SOT-23  |
| BUZ 20                                                                                       | 100          | 0.20                      | 2.1... 4.0       | 13.50     | TO-220  |
| BUZ 21                                                                                       | 100          | 0.085                     | 2.1... 4.0       | 21.00     | TO-220  |
| BUZ 21L                                                                                      | 100          | 0.085                     | 1.2... 2.0       | 21.00     | TO-220  |
| BUZ 22                                                                                       | 100          | 0.055                     | 2.1... 4.0       | 34.00     | TO-220  |
| BUZ 30A                                                                                      | 200          | 0.130                     | 2.1... 4.0       | 21.00     | TO-220  |
| BUZ 31                                                                                       | 200          | 0.200                     | 2.1... 4.0       | 13.50     | TO-220  |
| BUZ 31L                                                                                      | 200          | 0.200                     | 1.2... 2.0       | 13.50     | TO-220  |
| BUZ 32                                                                                       | 200          | 0.400                     | 2.1... 4.0       | 9.50      | TO-220  |
| BUZ 40B                                                                                      | 500          | 0.800                     | 2.1... 4.0       | 8.00      | TO-220  |
| BUZ 41A                                                                                      | 500          | 1.500                     | 2.1... 4.0       | 4.50      | TO-220  |
| BUZ 42                                                                                       | 500          | 2.000                     | 2.1... 4.0       | 4.00      | TO-220  |
| BUZ 50A                                                                                      | 1000         | 5.000                     | 2.1... 4.0       | 2.50      | TO-220  |
| BUZ 50B                                                                                      | 1000         | 8.000                     | 2.1... 4.0       | 2.00      | TO-220  |
| BUZ 50C                                                                                      | 1000         | 6.000                     | 2.1... 4.0       | 2.30      | TO-220  |
| BUZ 51                                                                                       | 1000         | 4.000                     | 2.1... 4.0       | 3.40      | TO-220  |
| BUZ 60                                                                                       | 400          | 1.000                     | 2.1... 4.0       | 5.50      | TO-220  |
| BUZ 61                                                                                       | 400          | 0.400                     | 2.1... 4.0       | 12.50     | TO-220  |
| BUZ 61A                                                                                      | 400          | 0.500                     | 2.1... 4.0       | 11.00     | TO-220  |
| BUZ 72                                                                                       | 100          | 0.200                     | 2.1... 4.0       | 10.00     | TO-220  |
| BUZ 72A                                                                                      | 100          | 0.250                     | 2.1... 4.0       | 9.00      | TO-220  |
| BUZ 72AL                                                                                     | 100          | 0.250                     | 1.2... 2.0       | 9.00      | TO-220  |
| BUZ 72L                                                                                      | 100          | 0.200                     | 1.2... 2.0       | 10.00     | TO-220  |
| BUZ 73                                                                                       | 200          | 0.400                     | 2.1... 4.0       | 7.00      | TO-220  |
| BUZ 73A                                                                                      | 200          | 0.600                     | 2.1... 4.0       | 5.80      | TO-220  |
| BUZ 73AL                                                                                     | 200          | 0.600                     | 1.2... 2.0       | 5.80      | TO-220  |
| BUZ 73L                                                                                      | 200          | 0.400                     | 1.2... 2.0       | 7.00      | TO-220  |
| BUZ 74                                                                                       | 500          | 3.000                     | 2.1... 4.0       | 2.40      | TO-220  |
| BUZ 74A                                                                                      | 500          | 4.000                     | 2.1... 4.0       | 2.10      | TO-220  |
| BUZ 76                                                                                       | 400          | 1.800                     | 2.1... 4.0       | 3.00      | TO-220  |
| BUZ 76A                                                                                      | 400          | 2.500                     | 2.1... 4.0       | 2.60      | TO-220  |
| BUZ 77A                                                                                      | 600          | 4.000                     | 2.1... 4.0       | 2.10      | TO-220  |
| BUZ 77B                                                                                      | 600          | 3.500                     | 2.1... 4.0       | 2.90      | TO-220  |
| BUZ 78                                                                                       | 800          | 8.000                     | 2.1... 4.0       | 1.50      | TO-220  |
| BUZ 80                                                                                       | 800          | 4.000                     | 2.1... 4.0       | 2.60      | TO-220  |
| BUZ 80A                                                                                      | 800          | 3.000                     | 2.1... 4.0       | 3.00      | TO-220  |
| BUZ 81                                                                                       | 800          | 2.500                     | 2.1... 4.0       | 4.00      | TO-220  |
| BUZ 90                                                                                       | 600          | 1.600                     | 2.1... 4.0       | 4.50      | TO-220  |
| BUZ 90A                                                                                      | 600          | 2.000                     | 2.1... 4.0       | 4.00      | TO-220  |
| BUZ 91A                                                                                      | 600          | 0.900                     | 2.1... 4.0       | 8.00      | TO-220  |
| BUZ 92                                                                                       | 600          | 3.000                     | 2.1... 4.0       | 3.20      | TO-220  |
| BUZ 93                                                                                       | 600          | 2.500                     | 2.1... 4.0       | 3.60      | TO-220  |
| BUZ 100   | 50           | 0.018                     | 2.1... 4.0       | 58.00     | TO-220  |
| BUZ 100L  | 50           | 0.018                     | 1.2... 2.0       | 60.00     | TO-220  |
| BUZ 100S                                                                                     | 55           | 0.015                     | 2.1... 4.0       | 77.00     | TO-220  |
| BUZ 100SL                                                                                    | 55           | 0.018                     | 1.2... 2.0       | 70.00     | TO-220  |

 not for new design

| Type      | $V_{DS}$ [V] | $R_{DS(on)}$ [ $\Omega$ ] | $V_{GS(th)}$ [V] | $I_D$ [A] | Package |
|-----------|--------------|---------------------------|------------------|-----------|---------|
| BUZ 101   | 50           | 0.060                     | 2.1... 4.0       | 29.00     | TO-220  |
| BUZ 101L  | 50           | 0.060                     | 1.2... 2.0       | 29.00     | TO-220  |
| BUZ 101S  | 55           | 0.060                     | 2.1... 4.0       | 23.00     | TO-220  |
| BUZ 101SL | 55           | 0.070                     | 1.2... 2.0       | 21.00     | TO-220  |
| BUZ 102   | 50           | 0.023                     | 2.1... 4.0       | 58.00     | TO-220  |
| BUZ 102AL | 50           | 0.028                     | 1.2... 2.0       | 42.00     | TO-220  |
| BUZ 102S  | 55           | 0.023                     | 2.1... 4.0       | 52.00     | TO-220  |
| BUZ 102SL | 55           | 0.028                     | 1.2... 2.0       | 47.00     | TO-220  |
| BUZ 103   | 50           | 0.040                     | 2.1... 4.0       | 40.00     | TO-220  |
| BUZ 103AL | 50           | 0.050                     | 1.2... 2.0       | 35.00     | TO-220  |
| BUZ 103S  | 55           | 0.040                     | 2.1... 4.0       | 31.00     | TO-220  |
| BUZ 103SL | 55           | 0.050                     | 1.2... 2.0       | 28.00     | TO-220  |
| BUZ 104   | 50           | 0.100                     | 2.1... 4.0       | 17.50     | TO-220  |
| BUZ 104L  | 50           | 0.100                     | 1.2... 2.0       | 17.50     | TO-220  |
| BUZ 104S  | 55           | 0.100                     | 2.1... 4.0       | 14.00     | TO-220  |
| BUZ 104SL | 55           | 0.120                     | 1.2... 2.0       | 12.80     | TO-220  |
| BUZ 110S  | 55           | 0.012                     | 2.1... 4.0       | 80.00     | TO-220  |
| BUZ 110SL | 55           | 0.015                     | 1.2... 2.0       | 80.00     | TO-220  |
| BUZ 111S  | 55           | 0.008                     | 2.1... 4.0       | 80.00     | TO-220  |
| BUZ 111SL | 55           | 0.010                     | 1.2... 2.0       | 80.00     | TO-220  |
| BUZ 171   | -50          | 0.30                      | -4.0...-2.1      | -8.00     | TO-220  |
| BUZ 172   | -100         | 0.60                      | -4.0...-2.1      | -5.00     | TO-220  |
| BUZ 173   | -200         | 1.50                      | -4.0...-2.1      | -3.00     | TO-220  |
| BUZ 271   | -50          | 0.15                      | -4.0...-2.1      | -22.00    | TO-220  |
| BUZ 272   | -100         | 0.30                      | -4.0...-2.1      | -15.00    | TO-220  |
| BUZ 305   | 800          | 1.000                     | 2.1... 4.0       | 7.50      | TO-218  |
| BUZ 307   | 800          | 3.000                     | 2.1... 4.0       | 3.00      | TO-218  |
| BUZ 308   | 800          | 4.000                     | 2.1... 4.0       | 2.60      | TO-218  |
| BUZ 310   | 1000         | 5.000                     | 2.1... 4.0       | 2.50      | TO-218  |
| BUZ 311   | 1000         | 6.000                     | 2.1... 4.0       | 2.30      | TO-218  |
| BUZ 312   | 1000         | 1.500                     | 2.1... 4.0       | 6.00      | TO-218  |
| BUZ 323   | 400          | 0.300                     | 2.1... 4.0       | 15.00     | TO-218  |
| BUZ 325   | 400          | 0.350                     | 2.1... 4.0       | 12.50     | TO-218  |
| BUZ 326   | 400          | 0.500                     | 2.1... 4.0       | 10.50     | TO-218  |
| BUZ 330   | 500          | 0.600                     | 2.1... 4.0       | 9.50      | TO-218  |
| BUZ 331   | 500          | 0.800                     | 2.1... 4.0       | 8.00      | TO-218  |
| BUZ 332A  | 600          | 0.900                     | 2.1... 4.0       | 8.00      | TO-218  |
| BUZ 334   | 600          | 0.500                     | 2.1... 4.0       | 12.00     | TO-218  |
| BUZ 338   | 500          | 0.400                     | 2.1... 4.0       | 13.50     | TO-218  |
| BUZ 341   | 200          | 0.070                     | 2.1... 4.0       | 33.00     | TO-218  |
| BUZ 342   | 50           | 0.010                     | 2.1... 4.0       | 60.00     | TO-218  |
| BUZ 344   | 100          | 0.035                     | 2.1... 4.0       | 46.00     | TO-218  |
| BUZ 345   | 100          | 0.045                     | 2.1... 4.0       | 41.00     | TO-218  |
| BUZ 349   | 100          | 0.060                     | 2.1... 4.0       | 32.00     | TO-218  |
| BUZ 350   | 200          | 0.120                     | 2.1... 4.0       | 22.00     | TO-218  |
| BUZ 355   | 800          | 1.500                     | 2.1... 4.0       | 6.00      | TO-218  |
| BUZ 356   | 800          | 2.000                     | 2.1... 4.0       | 5.00      | TO-218  |
| BUZ 357   | 1000         | 2.000                     | 2.1... 4.0       | 5.00      | TO-218  |
| BUZ 358   | 1000         | 2.600                     | 2.1... 4.0       | 4.50      | TO-218  |
| SN 7000   | 60           | 5.00                      | 0.8... 2.0       | 0.25      | TO-92   |
| SN 7002   | 60           | 5.00                      | 0.8... 2.0       | 0.19      | SOT-23  |
| SP0610T   | -60          | 10.00                     | -2.0...-1.0      | -0.13     | SOT-23  |

| Type      | $V_{DS}$ [V] | $R_{DS(on)}$ [ $\Omega$ ] | $V_{GS(th)}$ [V] | $I_D$ [A] | Package             |
|-----------|--------------|---------------------------|------------------|-----------|---------------------|
| SPB30N03  | 30           | 0.023                     | 2.1... 4.0       | 30.00     | D <sup>2</sup> -PAK |
| SPB30N03L | 30           | 0.028                     | 1.2... 2.0       | 30.00     | D <sup>2</sup> -PAK |
| SPB46N03  | 30           | 0.015                     | 2.1... 4.0       | 46.00     | D <sup>2</sup> -PAK |
| SPB46N03L | 30           | 0.018                     | 1.2... 2.0       | 46.00     | D <sup>2</sup> -PAK |
| SPB80N03  | 30           | 0.006                     | 2.1... 4.0       | 80.00     | D <sup>2</sup> -PAK |
| SPB80N03L | 30           | 0.008                     | 1.2... 2.0       | 80.00     | D <sup>2</sup> -PAK |
| SPD02N60  | 600          | 5.50                      | 2.1... 4.0       | 2.00      | D-PAK               |
| SPD07N20  | 200          | 0.40                      | 2.1... 4.0       | 7.00      | D-PAK               |
| SPD08N05L | 55           | 0.18                      | 1.2... 2.0       | 8.00      | D-PAK               |
| SPD08N10  | 100          | 0.30                      | 2.1... 4.0       | 8.40      | D-PAK               |
| SPD08P05  | -50          | 0.30                      | -4.0...-2.1      | -8.00     | D-PAK               |
| SPD09N05  | 55           | 0.15                      | 2.1... 4.0       | 9.00      | D-PAK               |
| SPD10N10  | 100          | 0.20                      | 2.1... 4.0       | 10.00     | D-PAK               |
| SPD13N05L | 55           | 0.12                      | 1.2... 2.0       | 12.80     | D-PAK               |
| SPD14N05  | 55           | 0.10                      | 2.1... 4.0       | 14.00     | D-PAK               |
| SPD21N05L | 55           | 0.07                      | 1.2... 2.0       | 21.00     | D-PAK               |
| SPD23N05  | 55           | 0.06                      | 2.1... 4.0       | 23.00     | D-PAK               |
| SPD28N03  | 30           | 0.023                     | 2.1... 4.0       | 28.00     | D-PAK               |
| SPD28N03L | 30           | 0.028                     | 1.2... 2.0       | 28.00     | D-PAK               |
| SPD28N05L | 55           | 0.05                      | 1.2... 2.0       | 28.00     | D-PAK               |
| SPD30N03  | 30           | 0.015                     | 2.1... 4.0       | 30.00     | D-PAK               |
| SPD30N03L | 30           | 0.018                     | 1.2... 2.0       | 30.00     | D-PAK               |
| SPD31N05  | 55           | 0.04                      | 2.1... 4.0       | 31.00     | D-PAK               |
| SPP30N03  | 30           | 0.023                     | 2.1... 4.0       | 30.00     | TO-220              |
| SPP30N03L | 30           | 0.028                     | 1.2... 2.0       | 30.00     | TO-220              |
| SPP46N03  | 30           | 0.015                     | 2.1... 4.0       | 46.00     | TO-220              |
| SPP46N03L | 30           | 0.018                     | 1.2... 2.0       | 46.00     | TO-220              |
| SPP80N03  | 30           | 0.006                     | 2.1... 4.0       | 80.00     | TO-220              |
| SPP80N03L | 30           | 0.008                     | 1.2... 2.0       | 80.00     | TO-220              |
| SPU02N60  | 600          | 5.50                      | 2.1... 4.0       | 2.00      | I-PAK               |
| SPU07N20  | 200          | 0.40                      | 2.1... 4.0       | 7.00      | I-PAK               |
| SPU08N05L | 55           | 0.18                      | 1.2... 2.0       | 8.00      | I-PAK               |
| SPU08N10  | 100          | 0.30                      | 2.1... 4.0       | 8.40      | I-PAK               |
| SPU08P05  | -50          | 0.30                      | -4.0...-2.1      | -8.00     | I-PAK               |
| SPU09N05  | 55           | 0.15                      | 2.1... 4.0       | 9.00      | I-PAK               |
| SPU10N10  | 100          | 0.20                      | 2.1... 4.0       | 10.00     | I-PAK               |
| SPU13N05L | 55           | 0.12                      | 1.2... 2.0       | 12.80     | I-PAK               |
| SPU14N05  | 55           | 0.10                      | 2.1... 4.0       | 14.00     | I-PAK               |
| SPU21N05L | 55           | 0.07                      | 1.2... 2.0       | 21.00     | I-PAK               |
| SPU23N05  | 55           | 0.06                      | 2.1... 4.0       | 23.00     | I-PAK               |
| SPU28N03  | 30           | 0.023                     | 2.1... 4.0       | 28.00     | I-PAK               |
| SPU28N03L | 30           | 0.018                     | 1.2... 2.0       | 28.00     | I-PAK               |
| SPU28N05L | 55           | 0.05                      | 1.2... 2.0       | 28.00     | I-PAK               |
| SPU30N03  | 30           | 0.015                     | 2.1... 4.0       | 30.00     | I-PAK               |
| SPU30N03L | 30           | 0.018                     | 1.2... 2.0       | 30.00     | I-PAK               |
| SPU31N05  | 55           | 0.04                      | 2.1... 4.0       | 31.00     | I-PAK               |

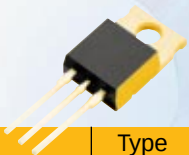
⚡ not for new design



IGBTs

Fast IGBT  
TO-220

| $V_{CE}$ [V] | $I_C$ [A] | Type     |
|--------------|-----------|----------|
| 600          | 2.0       | SGP02N60 |
|              | 4.0       | SGP04N60 |
|              | 6.0       | SGP06N60 |
|              | 10.0      | SGP10N60 |
|              | 15.0      | SGP15N60 |
|              | 20.0      | SGP20N60 |
|              | 30.0      | SGP30N60 |



Fast IGBT  
D-PAK

| $V_{CE}$ [V] | $I_C$ [A] | Type     |
|--------------|-----------|----------|
| 600          | 2.0       | SGD02N60 |
|              | 4.0       | SGD04N60 |
|              | 6.0       | SGD06N60 |



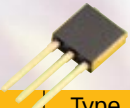
Fast IGBT  
D<sup>2</sup>PAK

| $V_{CE}$ [V] | $I_C$ [A] | Type     |
|--------------|-----------|----------|
| 600          | 2.0       | SGB02N60 |
|              | 4.0       | SGB04N60 |
|              | 6.0       | SGB06N60 |
|              | 10.0      | SGB10N60 |
|              | 15.0      | SGB15N60 |
|              | 20.0      | SGB20N60 |
|              | 30.0      | SGB30N60 |



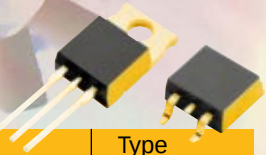
Fast IGBT  
I-PAK

| $V_{CE}$ [V] | $I_C$ [A] | Type     |
|--------------|-----------|----------|
| 600          | 2.0       | SGU02N60 |
|              | 4.0       | SGU04N60 |
|              | 6.0       | SGU06N60 |



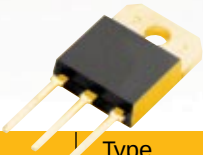
IGBT  
TO-220/D<sup>2</sup>PAK

| $V_{CE}$ [V] | $I_C$ [A] | Type      |
|--------------|-----------|-----------|
| 600          | 22.0      | BUP 400   |
|              | 28.0      | BUP 401   |
|              | 36.0      | BUP 402   |
|              | 49.0      | BUP 403   |
| 1000         | 12.0      | BUP 202 ⚡ |
|              | 21.0      | BUP 203 ⚡ |
| 1200         | 3.5       | BUP 200 ⚡ |
|              | 30.0      | BUP 213   |



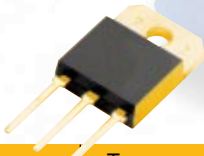
IGBT  
TO-218

| $V_{CE}$ [V] | $I_C$ [A] | Type      |
|--------------|-----------|-----------|
| 600          | 80.0      | BUP 604   |
| 1000         | 12.0      | BUP 302 ⚡ |
|              | 21.0      | BUP 303 ⚡ |
|              | 35.0      | BUP 304 ⚡ |
| 1200         | 3.5       | BUP 300 ⚡ |
|              | 32.0      | BUP 313 ⚡ |
|              | 35.0      | BUP 307   |
|              | 52.0      | BUP 314   |
| 1600         | 25.0      | BUP 309 ⚡ |



DUO PACK  
TO-218

| $V_{CE}$ [V] | $I_C$ [A] | Type       |
|--------------|-----------|------------|
| 600          | 36.0      | BUP 602D   |
|              | 42.0      | BUP 603D   |
|              | 12.0      | BUP 305D ⚡ |
| 1200         | 21.0      | BUP 306D ⚡ |
|              | 35.0      | BUP 307D ⚡ |
|              | 30.0      | BUP 313D   |
|              | 42.0      | BUP 314D   |



N-Channel Depletion

SOT-23

| $V_{DS}$ [V] | $R_{DSon}$ [Ω] | $V_{GS(th)}$ [V] | $I_D$ [A] | Type    |
|--------------|----------------|------------------|-----------|---------|
| 50           | 8.00           | -3.0...-1.5      | 0.16      | BSS 159 |
| 100          | 12.00          | -3.0...-1.5      | 0.12      | BSS 169 |
| 250          | 100.00         | -1.8...-0.7      | 0.04      | BSS 139 |



SOT-223

| $V_{DS}$ [V] | $R_{DSon}$ [Ω] | $V_{GS(th)}$ [V] | $I_D$ [A] | Type    |
|--------------|----------------|------------------|-----------|---------|
| 200          | 3.50           | -1.8...-0.7      | 0.48      | BSP 149 |
| 240          | 20.00          | -1.8...-0.7      | 0.25      | BSP 129 |
| 600          | 60.00          | -1.8...-0.7      | 0.10      | BSP 135 |



TO-92

| $V_{DS}$ [V] | $R_{DSon}$ [Ω] | $V_{GS(th)}$ [V] | $I_D$ [A] | Type    |
|--------------|----------------|------------------|-----------|---------|
| 200          | 3.50           | -1.8...-0.7      | 0.35      | BSS 149 |
| 240          | 20.00          | -1.8...-0.7      | 0.15      | BSS 129 |
| 250          | 100.00         | -1.8...-0.7      | 0.07      | BSS 229 |
| 600          | 60.00          | -1.8...-0.7      | 0.08      | BSS 135 |



P-Channel Enhancement

SOT-23

| $V_{DS}$ [V] | $R_{DSon}$ [Ω] | $V_{GS(th)}$ [V] | $I_D$ [A] | Type    |
|--------------|----------------|------------------|-----------|---------|
| -50          | 10.00          | -1.6...-0.8      | -0.13     | BSS 284 |
|              | 10.00          | -2.0...-0.8      | -0.13     | BSS 84  |
| -60          | 10.00          | -2.0...-1.0      | -0.13     | SP0610T |



SOT-89

| $V_{DS}$ [V] | $R_{DSon}$ [Ω] | $V_{GS(th)}$ [V] | $I_D$ [A] | Type    |
|--------------|----------------|------------------|-----------|---------|
| -240         | 20.00          | -2.0...-0.8      | -0.15     | BSS 192 |



SOT-223

| $V_{DS}$ [V] | $R_{DSon}$ [Ω] | $V_{GS(th)}$ [V] | $I_D$ [A] | Type    |
|--------------|----------------|------------------|-----------|---------|
| -50          | 0.80           | -2.0...-0.8      | -1.10     | BSP 315 |
| -60          | 0.35           | -4.0...-2.1      | -1.70     | BSP 170 |
|              | 0.35           | -2.0...-0.8      | -1.70     | BSP 171 |
| -100         | 2.20           | -2.0...-0.8      | -0.65     | BSP 316 |
| -200         | 6.00           | -2.0...-0.8      | -0.37     | BSP 317 |
| -240         | 20.00          | -2.0...-0.8      | -0.20     | BSP 92  |



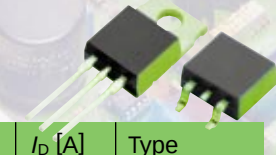
TO-92

| $V_{DS}$ [V] | $R_{DSon}$ [Ω] | $V_{GS(th)}$ [V] | $I_D$ [A] | Type    |
|--------------|----------------|------------------|-----------|---------|
| -50          | 10.00          | -2.0...-0.8      | -0.17     | BSS 110 |
| -240         | 20.00          | -2.0...-0.8      | -0.15     | BSS 92  |



TO-220/D<sup>2</sup>PAK

| $V_{DS}$ [V] | $R_{DSon}$ [Ω] | $V_{GS(th)}$ [V] | $I_D$ [A] | Type    |
|--------------|----------------|------------------|-----------|---------|
| -50          | 0.15           | -4.0...-2.1      | -22.0     | BUZ 271 |
|              | 0.30           | -4.0...-2.1      | -8.0      | BUZ 171 |
| -100         | 0.30           | -4.0...-2.1      | -15.0     | BUZ 272 |
|              | 0.60           | -4.0...-2.1      | -5.0      | BUZ 172 |
| -200         | 1.50           | -4.0...-2.1      | -3.0      | BUZ 173 |



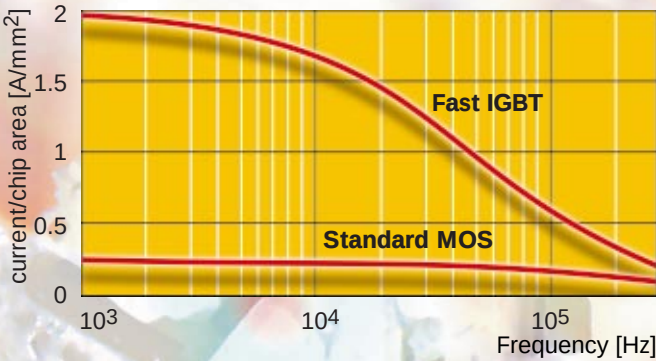
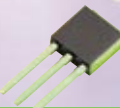
D-PAK

| $V_{DS}$ [V] | $R_{DSon}$ [Ω] | $V_{GS(th)}$ [V] | $I_D$ [A] | Type     |
|--------------|----------------|------------------|-----------|----------|
| -50          | 0.30           | -4.0...-2.1      | -8.0      | SPD08P05 |



I-PAK

| $V_{DS}$ [V] | $R_{DSon}$ [Ω] | $V_{GS(th)}$ [V] | $I_D$ [A] | Type     |
|--------------|----------------|------------------|-----------|----------|
| -50          | 0.30           | -4.0...-2.1      | -8.0      | SPU08P05 |



⚡ not for new design



# N-Channel Enhancement

## SOT-23

| $V_{DS}$ [V] | $R_{DS(on)}$ [ $\Omega$ ] | $V_{GS(th)}$ [V] | $I_D$ [A] | Type     |
|--------------|---------------------------|------------------|-----------|----------|
| 50           | 3.50                      | 0.8...1.6        | 0.22      | BSS 138  |
| 60           | 5.00                      | 0.8...2.0        | 0.19      | SN 7002  |
|              | 7.50                      | 1.0...2.5        | 0.15      | BSS 7728 |
| 65           | 3.50                      | 1.4...2.3        | 0.22      | BSS 145  |
| 100          | 6.00                      | 0.8...2.0        | 0.17      | BSS 123  |
|              | 6.00                      | 1.6...2.6        | 0.17      | BSS 119  |
| 240          | 16.00                     | 0.8...2.0        | 0.10      | BSS 131  |

## TO-92

| $V_{DS}$ [V] | $R_{DS(on)}$ [ $\Omega$ ] | $V_{GS(th)}$ [V] | $I_D$ [A] | Type    |
|--------------|---------------------------|------------------|-----------|---------|
| 50           | 0.30                      | 0.8...2.0        | 1.40      | BSS 295 |
|              | 3.50                      | 0.8...1.6        | 0.30      | BSS 98  |
| 60           | 5.00                      | 0.8...2.0        | 0.25      | SN 7000 |
|              | 5.00                      | 0.8...2.0        | 0.30      | BS 170  |
| 100          | 0.80                      | 0.8...2.0        | 0.80      | BSS 296 |
|              | 6.00                      | 0.8...2.0        | 0.22      | BSS 100 |
| 200          | 2.00                      | 0.8...2.0        | 0.48      | BSS 297 |
|              | 26.00                     | 0.8...2.0        | 0.13      | BS 107  |
| 240          | 6.00                      | 0.8...2.0        | 0.29      | BSS 89  |
|              | 8.00                      | 0.6...1.2        | 0.25      | BSS 88  |
|              | 16.00                     | 0.8...2.0        | 0.13      | BSS 101 |
| 400          | 28.00                     | 1.5...2.5        | 0.12      | BSS 124 |
| 600          | 45.00                     | 1.5...2.5        | 0.10      | BSS 125 |

## SOT-223

| $V_{DS}$ [V] | $R_{DS(on)}$ [ $\Omega$ ] | $V_{GS(th)}$ [V] | $I_D$ [A] | Type     |
|--------------|---------------------------|------------------|-----------|----------|
| 50           | 0.07                      | 1.2...2.0        | 3.80      | BSP 319  |
|              | 0.30                      | 0.8...2.0        | 1.80      | BSP 295  |
| 60           | 0.15                      | 1.2...2.0        | 2.60      | BSP 318S |
|              | 0.12                      | 2.1...4.0        | 2.90      | BSP 320S |
| 100          | 0.30                      | 2.1...4.0        | 1.70      | BSP 373  |
|              | 0.31                      | 0.8...2.0        | 1.70      | BSP 372  |
|              | 0.80                      | 0.8...2.0        | 1.00      | BSP 296  |
|              | 6.00                      | 0.8...2.0        | 0.38      | BSP 123  |
| 200          | 2.00                      | 0.8...2.0        | 0.65      | BSP 297  |
| 240          | 6.00                      | 0.8...2.0        | 0.36      | BSP 89   |
|              | 8.00                      | 0.6...1.2        | 0.32      | BSP 88   |
| 400          | 3.00                      | 2.1...4.0        | 0.50      | BSP 298  |
|              | 25.00                     | 1.5...2.5        | 0.17      | BSP 324  |
| 500          | 4.00                      | 2.1...4.0        | 0.40      | BSP 299  |
| 600          | 45.00                     | 1.5...2.5        | 0.12      | BSP 125  |
| 800          | 20.00                     | 2.1...4.0        | 0.19      | BSP 300  |

## SO-8 Dual

| $V_{DS}$ [V] | $R_{DS(on)}$ [ $\Omega$ ] | $V_{GS(th)}$ [V] | $I_D$ [A] | Type      |
|--------------|---------------------------|------------------|-----------|-----------|
| 30           | 0.075                     | 1.2...2.0        | 4.2       | BSO 307N  |
| 60           | 0.15                      | 1.2...2.0        | 2.6       | BSO 615N  |
|              | 0.12                      | 2.1...4.0        | 3.1       | BSO 615NV |

## SOT-89

| $V_{DS}$ [V] | $R_{DS(on)}$ [ $\Omega$ ] | $V_{GS(th)}$ [V] | $I_D$ [A] | Type   |
|--------------|---------------------------|------------------|-----------|--------|
| 240          | 6.00                      | 0.8...2.0        | 0.29      | BSS 87 |

### Product Numbering System

|                           |                    |                            |
|---------------------------|--------------------|----------------------------|
| Siemens                   | —S P P 60 N 05 . . | Option                     |
| Device                    |                    | L for Logic Level          |
| P for MOSFET              |                    | Voltage: divide through 10 |
| G for IGBT                |                    | Channel Polarity           |
| Package Type              |                    | N for N-channel            |
| P for TO-220              |                    | P for P-channel            |
| B for D <sup>2</sup> -PAK |                    | Current: $I_{Dmax}$        |
| D for D-PAK (TO-252)      |                    |                            |
| U for I-PAK (TO-251)      |                    |                            |

## I-PAK

| $V_{DS}$ [V] | $R_{DS(on)}$ [ $\Omega$ ] | $V_{GS(th)}$ [V] | $I_D$ [A] | Type      |
|--------------|---------------------------|------------------|-----------|-----------|
| 30           | 0.015                     | 2.1...4.0        | 30.00     | SPU30N03  |
|              | 0.023                     | 2.1...4.0        | 28.00     | SPU28N03  |
|              | 0.018                     | 1.2...2.0        | 30.00     | SPU30N03L |
|              | 0.028                     | 1.2...2.0        | 28.00     | SPU28N03L |
| 55           | 0.04                      | 2.1...4.0        | 31.00     | SPU31N05  |
|              | 0.06                      | 2.1...4.0        | 23.00     | SPU23N05  |
|              | 0.10                      | 2.1...4.0        | 14.00     | SPU14N05  |
|              | 0.15                      | 2.1...4.0        | 9.00      | SPU09N05  |
|              | 0.05                      | 1.2...2.0        | 28.00     | SPU28N05L |
|              | 0.07                      | 1.2...2.0        | 21.00     | SPU21N05L |
|              | 0.12                      | 1.2...2.0        | 12.80     | SPU13N05L |
|              | 0.18                      | 1.2...2.0        | 8.00      | SPU08N05L |
| 100          | 0.20                      | 2.1...4.0        | 10.00     | SPU10N10  |
|              | 0.30                      | 2.1...4.0        | 8.40      | SPU08N10  |
| 200          | 0.40                      | 2.1...4.0        | 7.00      | SPU07N20  |
| 600          | 5.50                      | 2.1...4.0        | 2.00      | SPU02N60  |

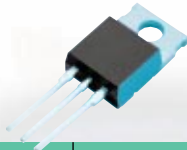
# N-Channel Enhancement

## D-PAK



| $V_{DS}$ [V] | $R_{DS(on)}$ [ $\Omega$ ] | $V_{GS(th)}$ [V] | $I_D$ [A] | Type      |
|--------------|---------------------------|------------------|-----------|-----------|
| 30           | 0.015                     | 2.1...4.0        | 30.00     | SPD30N03  |
|              | 0.023                     | 2.1...4.0        | 28.00     | SPD28N03  |
|              | 0.018                     | 1.2...2.0        | 30.00     | SPD30N03L |
|              | 0.028                     | 1.2...2.0        | 28.00     | SPD28N03L |
| 55           | 0.04                      | 2.1...4.0        | 31.00     | SPD31N05  |
|              | 0.06                      | 2.1...4.0        | 23.00     | SPD23N05  |
|              | 0.10                      | 2.1...4.0        | 14.00     | SPD14N05  |
|              | 0.15                      | 2.1...4.0        | 9.00      | SPD09N05  |
|              | 0.05                      | 1.2...2.0        | 28.00     | SPD28N05L |
|              | 0.07                      | 1.2...2.0        | 21.00     | SPD21N05L |
|              | 0.12                      | 1.2...2.0        | 12.80     | SPD13N05L |
| 100          | 0.20                      | 2.1...4.0        | 10.00     | SPD10N10  |
|              | 0.30                      | 2.1...4.0        | 8.40      | SPD08N10  |
| 200          | 0.40                      | 2.1...4.0        | 7.00      | SPD07N20  |
| 600          | 5.50                      | 2.1...4.0        | 2.00      | SPD02N60  |

## S-FET TO-220



| $V_{DS}$ [V] | $R_{DS(on)}$ [ $\Omega$ ] | $V_{GS(th)}$ [V] | $I_D$ [A] | Type      |
|--------------|---------------------------|------------------|-----------|-----------|
| 30           | 0.006                     | 2.1...4.0        | 80.00     | SPP80N03  |
|              | 0.015                     | 2.1...4.0        | 46.00     | SPP46N03  |
|              | 0.023                     | 2.1...4.0        | 30.00     | SPP30N03  |
|              | 0.008                     | 1.2...2.0        | 80.00     | SPP80N03L |
|              | 0.018                     | 1.2...2.0        | 46.00     | SPP46N03L |
|              | 0.028                     | 1.2...2.0        | 30.00     | SPP30N03L |

## S-FET D<sup>2</sup>PAK



| $V_{DS}$ [V] | $R_{DS(on)}$ [ $\Omega$ ] | $V_{GS(th)}$ [V] | $I_D$ [A] | Type      |
|--------------|---------------------------|------------------|-----------|-----------|
| 30           | 0.006                     | 2.1...4.0        | 80.00     | SPB80N03  |
|              | 0.015                     | 2.1...4.0        | 46.00     | SPB46N03  |
|              | 0.023                     | 2.1...4.0        | 30.00     | SPB30N03  |
|              | 0.008                     | 1.2...2.0        | 80.00     | SPB80N03L |
|              | 0.018                     | 1.2...2.0        | 46.00     | SPB46N03L |
|              | 0.028                     | 1.2...2.0        | 30.00     | SPB30N03L |

## TO-218



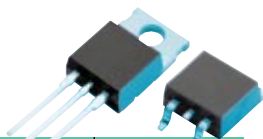
| $V_{DS}$ [V] | $R_{DS(on)}$ [ $\Omega$ ] | $V_{GS(th)}$ [V] | $I_D$ [A] | Type     |
|--------------|---------------------------|------------------|-----------|----------|
| 50           | 0.010                     | 2.1...4.0        | 60.00     | BUZ 342  |
|              | 0.035                     | 2.1...4.0        | 46.00     | BUZ 344  |
|              |                           | 2.1...4.0        | 41.00     | BUZ 345  |
| 100          | 0.060                     | 2.1...4.0        | 32.00     | BUZ 349  |
|              | 0.070                     | 2.1...4.0        | 33.00     | BUZ 341  |
|              |                           | 2.1...4.0        | 22.00     | BUZ 350  |
| 200          | 0.120                     | 2.1...4.0        | 22.00     | BUZ 350  |
|              | 0.30                      | 2.1...4.0        | 15.00     | BUZ 323  |
|              |                           | 2.1...4.0        | 12.50     | BUZ 325  |
| 400          | 0.50                      | 2.1...4.0        | 10.50     | BUZ 326  |
|              | 0.40                      | 2.1...4.0        | 13.50     | BUZ 338  |
|              |                           | 2.1...4.0        | 9.50      | BUZ 330  |
| 500          | 0.60                      | 2.1...4.0        | 8.00      | BUZ 331  |
|              | 0.50                      | 2.1...4.0        | 12.00     | BUZ 334  |
|              |                           | 2.1...4.0        | 8.00      | BUZ 332A |
| 600          | 0.90                      | 2.1...4.0        | 8.00      | BUZ 332A |
|              | 1.00                      | 2.1...4.0        | 7.50      | BUZ 305  |
|              |                           | 2.1...4.0        | 6.00      | BUZ 355  |
| 800          | 1.50                      | 2.1...4.0        | 6.00      | BUZ 355  |
|              | 2.00                      | 2.1...4.0        | 5.00      | BUZ 356  |
|              |                           | 2.1...4.0        | 3.00      | BUZ 307  |
| 1000         | 3.00                      | 2.1...4.0        | 3.00      | BUZ 307  |
|              | 4.00                      | 2.1...4.0        | 2.60      | BUZ 308  |
|              |                           | 2.1...4.0        | 2.60      | BUZ 308  |
| 1000         | 1.50                      | 2.1...4.0        | 6.00      | BUZ 312  |
|              | 2.00                      | 2.1...4.0        | 5.00      | BUZ 357  |
|              |                           | 2.1...4.0        | 4.50      | BUZ 358  |
| 1000         | 2.60                      | 2.1...4.0        | 4.50      | BUZ 358  |
|              | 5.00                      | 2.1...4.0        | 2.50      | BUZ 310  |
| 1000         | 6.00                      | 2.1...4.0        | 2.30      | BUZ 311  |

## S-FET TO-220/D<sup>2</sup>PAK



| $V_{DS}$ [V] | $R_{DS(on)}$ [ $\Omega$ ] | $V_{GS(th)}$ [V] | $I_D$ [A] | Type      |
|--------------|---------------------------|------------------|-----------|-----------|
| 55           | 0.008                     | 2.1...4.0        | 80.0      | BUZ 111S  |
|              | 0.012                     | 2.1...4.0        | 80.0      | BUZ 110S  |
|              | 0.015                     | 2.1...4.0        | 77.0      | BUZ 100S  |
|              | 0.023                     | 2.1...4.0        | 52.0      | BUZ 102S  |
|              | 0.040                     | 2.1...4.0        | 31.0      | BUZ 103S  |
|              | 0.060                     | 2.1...4.0        | 23.0      | BUZ 101S  |
|              | 0.100                     | 2.1...4.0        | 14.0      | BUZ 104S  |
|              | 0.010                     | 1.2...2.0        | 80.0      | BUZ 111SL |
|              | 0.015                     | 1.2...2.0        | 80.0      | BUZ 110SL |
|              | 0.018                     | 1.2...2.0        | 70.0      | BUZ 100SL |
|              | 0.028                     | 1.2...2.0        | 47.0      | BUZ 102SL |
|              | 0.050                     | 1.2...2.0        | 28.0      | BUZ 103SL |
|              | 0.070                     | 1.2...2.0        | 21.0      | BUZ 101SL |
|              | 0.120                     | 1.2...2.0        | 12.8      | BUZ 104SL |
|              | 0.120                     | 1.2...2.0        | 12.8      | BUZ 104SL |

## TO-220/D<sup>2</sup>PAK



| $V_{DS}$ [V] | $R_{DS(on)}$ [ $\Omega$ ] | $V_{GS(th)}$ [V] | $I_D$ [A] | Type        |
|--------------|---------------------------|------------------|-----------|-------------|
| 50           | 0.018                     | 2.1...4.0        | 58.00     | BUZ 100 ⚡   |
|              | 0.023                     | 2.1...4.0        | 58.00     | BUZ 102 ⚡   |
|              | 0.040                     | 2.1...4.0        | 40.00     | BUZ 103 ⚡   |
|              | 0.060                     | 2.1...4.0        | 29.00     | BUZ 101 ⚡   |
|              | 0.100                     | 2.1...4.0        | 17.50     | BUZ 104 ⚡   |
|              | 0.018                     | 1.2...2.0        | 60.00     | BUZ 100L ⚡  |
|              | 0.028                     | 1.2...2.0        | 42.00     | BUZ 102AL ⚡ |
|              | 0.050                     | 1.2...2.0        | 35.00     | BUZ 103AL ⚡ |
|              | 0.060                     | 1.2...2.0        | 29.00     | BUZ 101L ⚡  |
|              | 0.100                     | 1.2...2.0        | 17.50     | BUZ 104L ⚡  |
| 100          | 0.055                     | 2.1...4.0        | 34.00     | BUZ 22      |
|              | 0.085                     | 2.1...4.0        | 21.00     | BUZ 21      |
|              | 0.200                     | 2.1...4.0        | 10.00     | BUZ 72      |
|              | 0.200                     | 2.1...4.0        | 13.50     | BUZ 20      |
|              | 0.250                     | 2.1...4.0        | 9.00      | BUZ 72A     |
|              | 0.085                     | 1.2...2.0        | 21.00     | BUZ 21L     |
|              | 0.200                     | 1.2...2.0        | 10.00     | BUZ 72L     |
|              | 0.250                     | 1.2...2.0        | 9.00      | BUZ 72AL    |
|              | 0.130                     | 2.1...4.0        | 21.00     | BUZ 30A     |
|              |                           | 2.1...4.0        | 13.50     | BUZ 31      |
| 200          | 0.400                     | 2.1...4.0        | 9.50      | BUZ 32      |
|              | 0.400                     | 2.1...4.0        | 7.00      | BUZ 73      |
|              | 0.600                     | 2.1...4.0        | 5.80      | BUZ 73A     |
|              | 0.200                     | 1.2...2.0        | 13.50     | BUZ 31L     |
|              | 0.400                     | 1.2...2.0        | 7.00      | BUZ 73L     |
|              | 0.600                     | 1.2...2.0        | 5.80      | BUZ 73AL    |
| 400          | 0.40                      | 2.1...4.0        | 12.50     | BUZ 61      |
|              | 0.50                      | 2.1...4.0        | 11.00     | BUZ 61A     |
|              | 1.00                      | 2.1...4.0        | 5.50      | BUZ 60      |
|              | 1.80                      | 2.1...4.0        | 3.00      | BUZ 76      |
|              | 2.50                      | 2.1...4.0        | 2.60      | BUZ 76A     |
| 500          | 0.80                      | 2.1...4.0        | 8.00      | BUZ 40B     |
|              | 1.50                      | 2.1...4.0        | 4.50      | BUZ 41A     |
|              | 2.00                      | 2.1...4.0        | 4.00      | BUZ 42      |
|              | 3.00                      | 2.1...4.0        | 2.40      | BUZ 74      |
|              | 4.00                      | 2.1...4.0        | 2.10      | BUZ 74A     |
| 600          | 0.90                      | 2.1...4.0        | 8.00      | BUZ 91A     |
|              | 1.60                      | 2.1...4.0        | 4.50      | BUZ 90      |
|              | 2.00                      | 2.1...4.0        | 4.00      | BUZ 90A     |
|              | 2.50                      | 2.1...4.0        | 3.60      | BUZ 93      |
|              | 3.00                      | 2.1...4.0        | 3.20      | BUZ 92      |
| 800          | 3.50                      | 2.1...4.0        | 2.90      | BUZ 77B     |
|              | 4.00                      | 2.1...4.0        | 2.10      | BUZ 77A     |
| 1000         | 2.50                      | 2.1...4.0        | 4.00      | BUZ 81      |
|              | 3.00                      | 2.1...4.0        | 3.00      | BUZ 80A     |
|              | 4.00                      | 2.1...4.0        | 2.60      | BUZ 80      |
|              | 8.00                      | 2.1...4.0        | 1.50      | BUZ 78      |
| 1000         | 4.00                      | 2.1...4.0        | 3.40      | BUZ 51      |
|              | 5.00                      | 2.1...4.0        | 2.50      | BUZ 50A     |
|              | 6.00                      | 2.1...4.0        | 2.30      | BUZ 50C     |
|              | 8.00                      | 2.1...4.0        | 2.00      | BUZ 50B     |

⚡ not for new design



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