

Electrical Characteristics @ 25°C Unless Otherwise Specified

| MCC<br>PART NUMBER | REVERSE<br>STAND-OFF<br>VOLTAGE<br>$V_{WM}$ | BREAKDOWN VOLTAGE<br>$V_{(BR)} @ I_T$<br>(VOLTS) |        |            | MAXIMUM<br>CLAMPING<br>VOLTAGE @ $I_{PP}$ | PEAK PULSE<br>CURRENT<br>$I_{PP}$ | MAXIMUM<br>REVERSE<br>LEAKAGE<br>@ $V_{WM}$<br>$I_D$ | MARKING<br>CODE |
|--------------------|---------------------------------------------|--------------------------------------------------|--------|------------|-------------------------------------------|-----------------------------------|------------------------------------------------------|-----------------|
|                    | VOLTS                                       | MIN                                              | MAX    | $I_T$ (mA) | VOLTS                                     | (AMPS)                            | ( $\mu A$ )                                          |                 |
| SMBJP6KE6.8A       | 5.80                                        | 6.45                                             | 7.14   | 10         | 10.5                                      | 58.1                              | 1000                                                 | 6V8A            |
| SMBJP6KE7.5A       | 6.40                                        | 7.13                                             | 7.88   | 10         | 11.3                                      | 54.0                              | 500                                                  | 7V5A            |
| SMBJP6KE8.2A       | 7.02                                        | 7.79                                             | 8.61   | 10         | 12.1                                      | 50.4                              | 200                                                  | 8V2A            |
| SMBJP6KE9.1A       | 7.78                                        | 8.65                                             | 9.55   | 1          | 13.4                                      | 45.5                              | 50                                                   | 9V1A            |
| SMBJP6KE10A        | 8.55                                        | 9.50                                             | 10.50  | 1          | 14.5                                      | 42.1                              | 10                                                   | 10A             |
| SMBJP6KE11A        | 9.40                                        | 10.50                                            | 11.60  | 1          | 15.6                                      | 39.1                              | 5                                                    | 11A             |
| SMBJP6KE12A        | 10.20                                       | 11.40                                            | 12.60  | 1          | 16.7                                      | 36.5                              | 5                                                    | 12A             |
| SMBJP6KE13A        | 11.10                                       | 12.40                                            | 13.70  | 1          | 18.2                                      | 33.5                              | 1                                                    | 13A             |
| SMBJP6KE15A        | 12.80                                       | 14.30                                            | 15.80  | 1          | 21.2                                      | 28.8                              | 1                                                    | 15A             |
| SMBJP6KE16A        | 13.60                                       | 15.20                                            | 16.80  | 1          | 22.5                                      | 27.1                              | 1                                                    | 16A             |
| SMBJP6KE18A        | 15.30                                       | 17.10                                            | 18.90  | 1          | 25.5                                      | 24.2                              | 1                                                    | 18A             |
| SMBJP6KE20A        | 17.10                                       | 19.00                                            | 21.00  | 1          | 27.7                                      | 22.0                              | 1                                                    | 20A             |
| SMBJP6KE22A        | 18.80                                       | 20.90                                            | 23.10  | 1          | 30.6                                      | 19.9                              | 1                                                    | 22A             |
| SMBJP6KE24A        | 20.50                                       | 22.80                                            | 25.20  | 1          | 33.2                                      | 18.4                              | 1                                                    | 24A             |
| SMBJP6KE27A        | 23.10                                       | 25.70                                            | 28.40  | 1          | 37.5                                      | 16.3                              | 1                                                    | 27A             |
| SMBJP6KE30A        | 25.60                                       | 28.50                                            | 31.50  | 1          | 41.4                                      | 14.7                              | 1                                                    | 30A             |
| SMBJP6KE33A        | 28.20                                       | 31.40                                            | 34.70  | 1          | 45.7                                      | 13.3                              | 1                                                    | 33A             |
| SMBJP6KE36A        | 30.80                                       | 34.20                                            | 37.80  | 1          | 49.9                                      | 12.2                              | 1                                                    | 36A             |
| SMBJP6KE39A        | 33.30                                       | 37.10                                            | 41.00  | 1          | 53.9                                      | 11.3                              | 1                                                    | 39A             |
| SMBJP6KE43A        | 36.80                                       | 40.90                                            | 45.20  | 1          | 59.3                                      | 10.3                              | 1                                                    | 43A             |
| SMBJP6KE47A        | 40.20                                       | 44.70                                            | 49.40  | 1          | 64.8                                      | 9.4                               | 1                                                    | 47A             |
| SMBJP6KE51A        | 43.60                                       | 48.50                                            | 53.60  | 1          | 70.1                                      | 8.7                               | 1                                                    | 51A             |
| SMBJP6KE56A        | 47.80                                       | 53.20                                            | 58.80  | 1          | 77.0                                      | 7.9                               | 1                                                    | 56A             |
| SMBJP6KE62A        | 53.00                                       | 58.90                                            | 65.10  | 1          | 85.0                                      | 7.2                               | 1                                                    | 62A             |
| SMBJP6KE68A        | 58.10                                       | 64.60                                            | 71.40  | 1          | 92.0                                      | 6.6                               | 1                                                    | 68A             |
| SMBJP6KE75A        | 64.10                                       | 71.30                                            | 78.80  | 1          | 103.0                                     | 5.9                               | 1                                                    | 75A             |
| SMBJP6KE82A        | 70.10                                       | 77.90                                            | 86.10  | 1          | 113.0                                     | 5.4                               | 1                                                    | 82A             |
| SMBJP6KE91A        | 77.80                                       | 86.50                                            | 95.50  | 1          | 125.0                                     | 4.9                               | 1                                                    | 91A             |
| SMBJP6KE100A       | 85.50                                       | 95.00                                            | 105.00 | 1          | 137.0                                     | 4.5                               | 1                                                    | 100A            |
| SMBJP6KE110A       | 94.00                                       | 105.00                                           | 116.00 | 1          | 152.0                                     | 4.0                               | 1                                                    | 110A            |
| SMBJP6KE120A       | 102.00                                      | 114.00                                           | 126.00 | 1          | 165.0                                     | 3.7                               | 1                                                    | 120A            |
| SMBJP6KE130A       | 111.00                                      | 124.00                                           | 137.00 | 1          | 179.0                                     | 3.4                               | 1                                                    | 130A            |
| SMBJP6KE150A       | 128.00                                      | 143.00                                           | 158.00 | 1          | 207.0                                     | 2.9                               | 1                                                    | 150A            |
| SMBJP6KE160A       | 136.00                                      | 152.00                                           | 168.00 | 1          | 219.0                                     | 2.8                               | 1                                                    | 160A            |
| SMBJP6KE170A       | 145.00                                      | 162.00                                           | 179.00 | 1          | 234.0                                     | 2.6                               | 1                                                    | 170A            |
| SMBJP6KE180A       | 154.00                                      | 171.00                                           | 189.00 | 1          | 246.0                                     | 2.5                               | 1                                                    | 180A            |
| SMBJP6KE200A       | 171.00                                      | 190.00                                           | 210.00 | 1          | 274.0                                     | 2.2                               | 1                                                    | 200A            |
| SMBJP6KE220A       | 185.00                                      | 209.00                                           | 231.00 | 1          | 328.0                                     | 1.9                               | 1                                                    | 220A            |
| SMBJP6KE250A       | 214.00                                      | 237.00                                           | 263.00 | 1          | 344.0                                     | 1.9                               | 1                                                    | 250A            |
| SMBJP6KE300A       | 256.00                                      | 285.00                                           | 315.00 | 1          | 414.0                                     | 1.5                               | 1                                                    | 300A            |
| SMBJP6KE350A       | 300.00                                      | 332.00                                           | 368.00 | 1          | 482.0                                     | 1.3                               | 1                                                    | 350A            |
| SMBJP6KE400A       | 342.00                                      | 380.00                                           | 420.00 | 1          | 548.0                                     | 1.1                               | 1                                                    | 400A            |
| SMBJP6KE440A       | 376.00                                      | 418.00                                           | 462.00 | 1          | 602.0                                     | 1.0                               | 1                                                    | 440A            |
| SMBJP6KE480A       | 408.00                                      | 456.00                                           | 504.00 | 1          | 658.0                                     | 0.9                               | 1                                                    | 480A            |
| SMBJP6KE510A       | 434.00                                      | 485.00                                           | 535.00 | 1          | 698.0                                     | 0.9                               | 1                                                    | 510A            |
| SMBJP6KE530A       | 477.00                                      | 503.50                                           | 556.50 | 1          | 725.0                                     | 0.8                               | 1                                                    | 530A            |
| SMBJP6KE540A       | 459.00                                      | 513.00                                           | 567.00 | 1          | 740.0                                     | 0.8                               | 1                                                    | 540A            |
| SMBJP6KE550A       | 495.00                                      | 522.50                                           | 577.50 | 1          | 760.0                                     | 0.8                               | 1                                                    | 550A            |

For bi-directional type having  $V_{WM}$  of 10 volts and less, the  $I_R$  limit is double.  
The available parts are "A" type only, the parts without A ( $V_{BR}$  is  $\pm 10\%$ ) is not available.

Electrical Characteristics @ 25°C Unless Otherwise Specified

| MCC<br>PART NUMBER | REVERSE<br>STAND-OFF<br>VOLTAGE<br>$V_{WM}$ | BREAKDOWN VOLTAGE<br>$V_{(BR)} @ I_T$<br>(VOLTS) |        |            | MAXIMUM<br>CLAMPING<br>VOLTAGE@ $I_{PP}$ | PEAK PULSE<br>CURRENT<br>$I_{PP}$ | MAXIMUM<br>REVERSE<br>LEAKAGE<br>@ $V_{WM}$<br>$I_D$ | MARKING<br>CODE |
|--------------------|---------------------------------------------|--------------------------------------------------|--------|------------|------------------------------------------|-----------------------------------|------------------------------------------------------|-----------------|
|                    | VOLTS                                       | MIN                                              | MAX    | $I_T$ (mA) | VOLTS                                    | (AMPS)                            | ( $\mu$ A)                                           |                 |
| SMBJP6KE6.8CA      | 5.80                                        | 6.45                                             | 7.14   | 10         | 10.5                                     | 58.1                              | 1000                                                 | 6V8C            |
| SMBJP6KE7.5CA      | 6.40                                        | 7.13                                             | 7.88   | 10         | 11.3                                     | 54.0                              | 500                                                  | 7V5C            |
| SMBJP6KE8.2CA      | 7.02                                        | 7.79                                             | 8.61   | 10         | 12.1                                     | 50.4                              | 200                                                  | 8V2C            |
| SMBJP6KE9.1CA      | 7.78                                        | 8.65                                             | 9.55   | 1          | 13.4                                     | 45.5                              | 50                                                   | 9V1C            |
| SMBJP6KE10CA       | 8.55                                        | 9.50                                             | 10.50  | 1          | 14.5                                     | 42.1                              | 10                                                   | 10C             |
| SMBJP6KE11CA       | 9.40                                        | 10.50                                            | 11.60  | 1          | 15.6                                     | 39.1                              | 5                                                    | 11C             |
| SMBJP6KE12CA       | 10.20                                       | 11.40                                            | 12.60  | 1          | 16.7                                     | 36.5                              | 5                                                    | 12C             |
| SMBJP6KE13CA       | 11.10                                       | 12.40                                            | 13.70  | 1          | 18.2                                     | 33.5                              | 5                                                    | 13C             |
| SMBJP6KE15CA       | 12.80                                       | 14.30                                            | 15.80  | 1          | 21.2                                     | 28.8                              | 5                                                    | 15C             |
| SMBJP6KE16CA       | 13.60                                       | 15.20                                            | 16.80  | 1          | 22.5                                     | 27.1                              | 5                                                    | 16C             |
| SMBJP6KE18CA       | 15.30                                       | 17.10                                            | 18.90  | 1          | 25.5                                     | 24.2                              | 5                                                    | 18C             |
| SMBJP6KE20CA       | 17.10                                       | 19.00                                            | 21.00  | 1          | 27.7                                     | 22.0                              | 5                                                    | 20C             |
| SMBJP6KE22CA       | 18.80                                       | 20.90                                            | 23.10  | 1          | 30.6                                     | 19.9                              | 5                                                    | 22C             |
| SMBJP6KE24CA       | 20.50                                       | 22.80                                            | 25.20  | 1          | 33.2                                     | 18.4                              | 5                                                    | 24C             |
| SMBJP6KE27CA       | 23.10                                       | 25.70                                            | 28.40  | 1          | 37.5                                     | 16.3                              | 5                                                    | 27C             |
| SMBJP6KE30CA       | 25.60                                       | 28.50                                            | 31.50  | 1          | 41.4                                     | 14.7                              | 5                                                    | 30C             |
| SMBJP6KE33CA       | 28.20                                       | 31.40                                            | 34.70  | 1          | 45.7                                     | 13.3                              | 5                                                    | 33C             |
| SMBJP6KE36CA       | 30.80                                       | 34.20                                            | 37.80  | 1          | 49.9                                     | 12.2                              | 5                                                    | 36C             |
| SMBJP6KE39CA       | 33.30                                       | 37.10                                            | 41.00  | 1          | 53.9                                     | 11.3                              | 5                                                    | 39C             |
| SMBJP6KE43CA       | 36.80                                       | 40.90                                            | 45.20  | 1          | 59.3                                     | 10.3                              | 5                                                    | 43C             |
| SMBJP6KE47CA       | 40.20                                       | 44.70                                            | 49.40  | 1          | 64.8                                     | 9.4                               | 5                                                    | 47C             |
| SMBJP6KE51CA       | 43.60                                       | 48.50                                            | 53.60  | 1          | 70.1                                     | 8.7                               | 5                                                    | 51C             |
| SMBJP6KE56CA       | 47.80                                       | 53.20                                            | 58.80  | 1          | 77.0                                     | 7.9                               | 5                                                    | 56C             |
| SMBJP6KE62CA       | 53.00                                       | 58.90                                            | 65.10  | 1          | 85.0                                     | 7.2                               | 5                                                    | 62C             |
| SMBJP6KE68CA       | 58.10                                       | 64.60                                            | 71.40  | 1          | 92.0                                     | 6.6                               | 5                                                    | 68C             |
| SMBJP6KE75CA       | 64.10                                       | 71.30                                            | 78.80  | 1          | 103.0                                    | 5.9                               | 5                                                    | 75C             |
| SMBJP6KE82CA       | 70.10                                       | 77.90                                            | 86.10  | 1          | 113.0                                    | 5.4                               | 5                                                    | 82C             |
| SMBJP6KE91CA       | 77.80                                       | 86.50                                            | 95.50  | 1          | 125.0                                    | 4.9                               | 5                                                    | 91C             |
| SMBJP6KE100CA      | 85.50                                       | 95.00                                            | 105.00 | 1          | 137.0                                    | 4.5                               | 5                                                    | 100C            |
| SMBJP6KE110CA      | 94.00                                       | 105.00                                           | 116.00 | 1          | 152.0                                    | 4.0                               | 5                                                    | 110C            |
| SMBJP6KE120CA      | 102.00                                      | 114.00                                           | 126.00 | 1          | 165.0                                    | 3.7                               | 5                                                    | 120C            |
| SMBJP6KE130CA      | 111.00                                      | 124.00                                           | 137.00 | 1          | 179.0                                    | 3.4                               | 5                                                    | 130C            |
| SMBJP6KE150CA      | 128.00                                      | 143.00                                           | 158.00 | 1          | 207.0                                    | 2.9                               | 5                                                    | 150C            |
| SMBJP6KE160CA      | 136.00                                      | 152.00                                           | 168.00 | 1          | 219.0                                    | 2.8                               | 5                                                    | 160C            |
| SMBJP6KE170CA      | 145.00                                      | 162.00                                           | 179.00 | 1          | 234.0                                    | 2.6                               | 5                                                    | 170C            |
| SMBJP6KE180CA      | 154.00                                      | 171.00                                           | 189.00 | 1          | 246.0                                    | 2.5                               | 5                                                    | 180C            |
| SMBJP6KE200CA      | 171.00                                      | 190.00                                           | 210.00 | 1          | 274.0                                    | 2.2                               | 5                                                    | 200C            |
| SMBJP6KE220CA      | 185.00                                      | 209.00                                           | 231.00 | 1          | 328.0                                    | 1.9                               | 5                                                    | 220C            |
| SMBJP6KE250CA      | 214.00                                      | 237.00                                           | 263.00 | 1          | 344.0                                    | 1.9                               | 5                                                    | 250C            |
| SMBJP6KE300CA      | 256.00                                      | 285.00                                           | 315.00 | 1          | 414.0                                    | 1.5                               | 5                                                    | 300C            |
| SMBJP6KE350CA      | 300.00                                      | 332.00                                           | 368.00 | 1          | 482.0                                    | 1.3                               | 5                                                    | 350C            |
| SMBJP6KE400CA      | 342.00                                      | 380.00                                           | 420.00 | 1          | 548.0                                    | 1.1                               | 5                                                    | 400C            |
| SMBJP6KE440CA      | 376.00                                      | 418.00                                           | 462.00 | 1          | 602.0                                    | 1.0                               | 5                                                    | 440C            |
| SMBJP6KE480CA      | 408.00                                      | 456.00                                           | 504.00 | 1          | 658.0                                    | 0.9                               | 5                                                    | 480C            |
| SMBJP6KE510CA      | 434.00                                      | 485.00                                           | 535.00 | 1          | 698.0                                    | 0.9                               | 5                                                    | 510C            |
| SMBJP6KE530CA      | 477.00                                      | 503.50                                           | 556.50 | 1          | 725.0                                    | 0.8                               | 5                                                    | 530C            |
| SMBJP6KE540CA      | 459.00                                      | 513.00                                           | 567.00 | 1          | 740.0                                    | 0.8                               | 5                                                    | 540C            |
| SMBJP6KE550CA      | 495.00                                      | 522.50                                           | 577.50 | 1          | 760.0                                    | 0.8                               | 5                                                    | 550C            |

For bi-directional type having  $V_{WM}$  of 10 volts and less, the  $I_R$  limit is double.  
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## Curve Characteristics

Fig. 1 - Peak Pulse Power Rating Curve

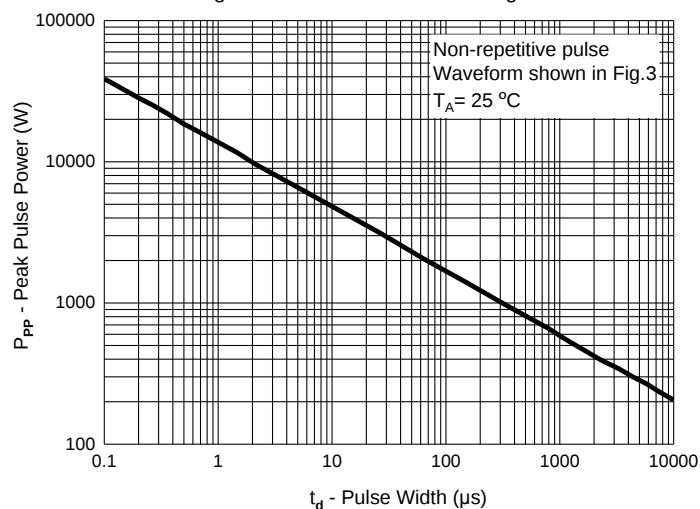


Fig. 2 - Typical Junction Capacitance

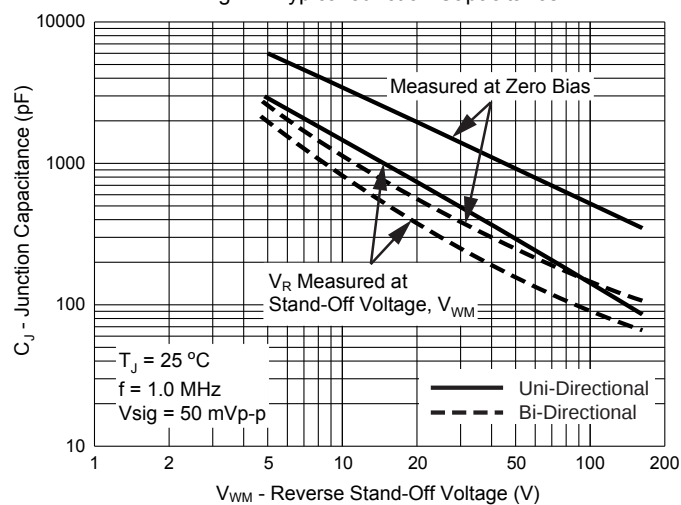


Fig. 3 - Pulse Waveform

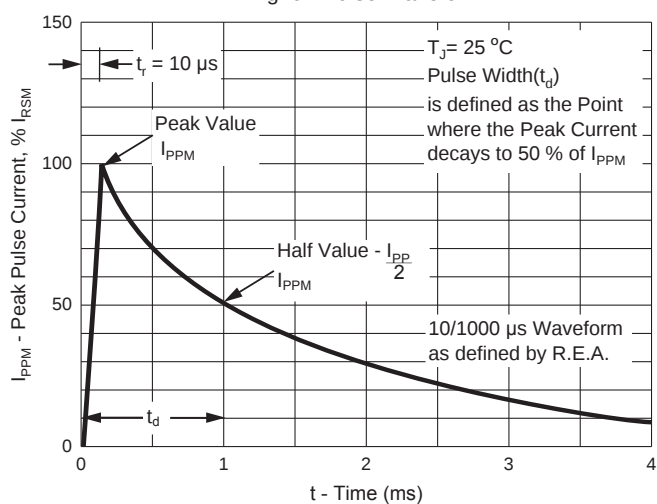
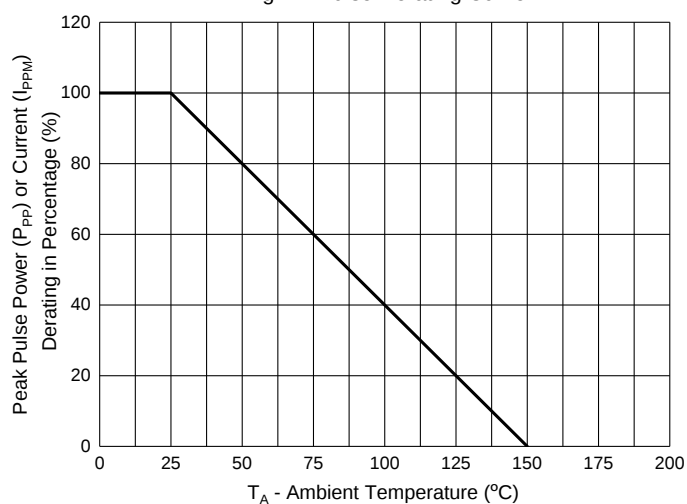


Fig. 4 - Pulse Derating Curve



## Ordering Information

| Device         | Packing              |
|----------------|----------------------|
| Part Number-TP | Tape&Reel:3Kpcs/Reel |

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