

## TVS DIODE

### FEATURES

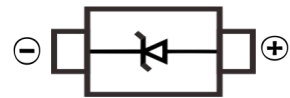
- Built-in strain relief
- Glass passivated junction
- Low inductance
- Excellent clamping capability
- Repetition Rate (duty cycle):0.01%
- Fast response time: typically less than 1.0ps  
from 0 Volts to V(BR) for unidirectional types
- Typical IR less than 1mA above 10V
- High temperature soldering guaranteed: 260°C/10 seconds,
- Surface Mount device



**SMB**

### MECHANICAL DATA

- Case: SMB(DO-214AA)
- Case Material: Molded Plastic. UL flammability
- Classification Rating: 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020
- Weight: 0.088 grams (approximate)



### MAXIMUM RATINGS AND CHARACTERISTICS(T<sub>A</sub> = 25°C unless otherwise noted)

| Parameter   | Symbol                            | Value          | UNIT |
|---|-----------------------------------|----------------|------|
| Peak power dissipation with a 10/1000µs waveform <sup>(1)</sup>                             | P <sub>PP</sub>                   | 600            | W    |
| Peak pulse current with a 10/1000µs waveform <sup>(1)</sup>                                 | I <sub>PP</sub>                   | See Next Table | A    |
| Power dissipation on infinite heatsink at T <sub>L</sub> = 75 °C                            | P <sub>D</sub>                    | 5.0            | W    |
| Peak forward surge current, 8.3 ms single half sine-wave unidirectional only <sup>(2)</sup> | I <sub>FSM</sub>                  | 100            | A    |
| Maximum instantaneous forward voltage at 50 A for unidirectional only <sup>(3)</sup>        | V <sub>F</sub>                    | 3.5/5.0        | V    |
| Operating junction and storage temperature range  | T <sub>J</sub> , T <sub>STG</sub> | -55 to +150    | °C   |

**Note:**

(1)Non-repetitive current pulse per Fig.5 and derated above T<sub>A</sub>= 25 °C per Fig.1

(2)Measured on 8.3 ms single half sine-wave or equivalent square wave, duty cycle = 4 pulses per minute maximum

(3)V<sub>F</sub><3.5V for devices of V<sub>BR</sub><200V and V<sub>F</sub><5.0V for devices of V<sub>BR</sub>>201V

**TVS DIODE**
**ELECTRICAL CHARACTERISTICS(T<sub>A</sub> = 25°C unless otherwise noted)**

| Part Number<br>(Uni) | Part Number<br>(Bi) | Device<br>Marking<br>Code |    | Breakdown Voltage V <sub>BR</sub> @I <sub>T</sub> |         |                     | Maximum<br>Reverse<br>Leakage I <sub>R</sub><br>@V <sub>RWM</sub><br>(uA) | Working<br>Peak Reverse<br>Voltage<br>V <sub>RWM</sub><br>(V) | Maximum<br>Reverse<br>Surge<br>Current I <sub>PP</sub><br>(A) | Maximum<br>Clamping<br>Voltage V <sub>C</sub><br>@I <sub>PP</sub><br>(V) |
|----------------------|---------------------|---------------------------|----|---|---------|---------------------|---|---|---|--|
|                      |                     | Uni                       | Bi | Min (V)   | Max (V) | I <sub>T</sub> (mA) |   |   |   |  |
| SMBJ5.0              | SMBJ5.0C            | KD                        | AD | 6.40  | 7.30    | 10                  | 800   | 5.0   | 62.50   | 9.6  |
| SMBJ5.0A             | SMBJ5.0CA           | KE                        | AE | 6.40  | 7.00    | 10                  | 800   | 5.0   | 65.22   | 9.2  |
| SMBJ6.0              | SMBJ6.0C            | KF                        | AF | 6.67  | 8.15    | 10                  | 800   | 6.0   | 52.63   | 11.4   |
| SMBJ6.0A             | SMBJ6.0CA           | KG                        | AG | 6.67  | 7.37    | 10                  | 800   | 6.0   | 58.25   | 10.3   |
| SMBJ6.5              | SMBJ6.5C            | KH                        | AH | 7.22  | 8.82    | 10                  | 500   | 6.5   | 48.78   | 12.3   |
| SMBJ6.5A             | SMBJ6.5CA           | KK                        | AK | 7.22  | 7.98    | 10                  | 500   | 6.5   | 53.57   | 11.2   |
| SMBJ7.0              | SMBJ7.0C            | KL                        | AL | 7.78  | 9.51    | 10                  | 200   | 7.0   | 45.11   | 13.3   |
| SMBJ7.0A             | SMBJ7.0CA           | KM                        | AM | 7.78  | 8.60    | 10                  | 200   | 7.0   | 50.00   | 12.0   |
| SMBJ7.5              | SMBJ7.5C            | KN                        | AN | 8.33  | 10.20   | 1                   | 100   | 7.5   | 41.96   | 14.3   |
| SMBJ7.5A             | SMBJ7.5CA           | KP                        | AP | 8.33  | 9.21    | 1                   | 100   | 7.5   | 46.51   | 12.9   |
| SMBJ8.0              | SMBJ8.0C            | KQ                        | AQ | 8.89  | 10.90   | 1                   | 50  | 8.0   | 40.00   | 15.0   |
| SMBJ8.0A             | SMBJ8.0CA           | KR                        | AR | 8.89  | 9.83    | 1                   | 50  | 8.0   | 44.12   | 13.6   |
| SMBJ8.5              | SMBJ8.5C            | KS                        | AS | 9.44  | 11.50   | 1                   | 10  | 8.5   | 37.74   | 15.9   |
| SMBJ8.5A             | SMBJ8.5CA           | KT                        | AT | 9.44  | 10.40   | 1                   | 10  | 8.5   | 41.67   | 14.4   |
| SMBJ9.0              | SMBJ9.0C            | KU                        | AU | 10.00   | 12.20   | 1                   | 5   | 9.0   | 35.50   | 16.9   |
| SMBJ9.0A             | SMBJ9.0CA           | KV                        | AV | 10.00   | 11.10   | 1                   | 5   | 9.0   | 38.96   | 15.4   |
| SMBJ10               | SMBJ10C             | KW                        | AW | 11.10   | 13.60   | 1                   | 5   | 10.0  | 31.91   | 18.8   |
| SMBJ10A              | SMBJ10CA            | KX                        | AX | 11.10   | 12.30   | 1                   | 5   | 10.0  | 35.29   | 17.0   |
| SMBJ11               | SMBJ11C             | KY                        | AY | 12.20   | 14.90   | 1                   | 1   | 11.0  | 29.85   | 20.1   |
| SMBJ11A              | SMBJ11CA            | KZ                        | AZ | 12.20   | 13.50   | 1                   | 1   | 11.0  | 32.97   | 18.2   |
| SMBJ12               | SMBJ12C             | LD                        | BD | 13.30   | 16.30   | 1                   | 1   | 12.0  | 27.27   | 22.0   |
| SMBJ12A              | SMBJ12CA            | LE                        | BE | 13.30   | 14.70   | 1                   | 1   | 12.0  | 30.15   | 19.9   |
| SMBJ13               | SMBJ13C             | LF                        | BF | 14.40   | 17.60   | 1                   | 1   | 13.0  | 25.21   | 23.8   |
| SMBJ13A              | SMBJ13CA            | LG                        | BG | 14.40   | 15.90   | 1                   | 1   | 13.0  | 27.91   | 21.5   |
| SMBJ14               | SMBJ14C             | LH                        | BH | 15.60   | 19.10   | 1                   | 1   | 14.0  | 23.26   | 25.8   |
| SMBJ14A              | SMBJ14CA            | LK                        | BK | 15.60   | 17.20   | 1                   | 1   | 14.0  | 25.86   | 23.2   |
| SMBJ15               | SMBJ15C             | LL                        | BL | 16.70   | 20.40   | 1                   | 1   | 15.0  | 22.30   | 26.9   |
| SMBJ15A              | SMBJ15CA            | LM                        | BM | 16.70   | 18.50   | 1                   | 1   | 15.0  | 24.59   | 24.4   |
| SMBJ16               | SMBJ16C             | LN                        | BN | 17.80   | 21.80   | 1                   | 1   | 16.0  | 20.83   | 28.8   |
| SMBJ16A              | SMBJ16CA            | LP                        | BP | 17.80   | 19.70   | 1                   | 1   | 16.0  | 23.08   | 26.0   |
| SMBJ17               | SMBJ17C             | LQ                        | BQ | 18.90   | 23.10   | 1                   | 1   | 17.0  | 19.67   | 30.5   |
| SMBJ17A              | SMBJ17CA            | LR                        | BR | 18.90   | 20.90   | 1                   | 1   | 17.0  | 21.74   | 27.6   |
| SMBJ18               | SMBJ18C             | LS                        | BS | 20.00   | 24.40   | 1                   | 1   | 18.0  | 18.63   | 32.2   |
| SMBJ18A              | SMBJ18CA            | LT                        | BT | 20.00   | 22.10   | 1                   | 1   | 18.0  | 20.55   | 29.2   |
| SMBJ19               | SMBJ19C             | LA                        | BA | 21.13   | 25.76   | 1                   | 1   | 19.0  | 17.64   | 34.0   |
| SMBJ19A              | SMBJ19CA            | LB                        | BB | 21.10   | 23.30   | 1                   | 1   | 19.0  | 19.49   | 30.8   |
| SMBJ20               | SMBJ20C             | LU                        | BU | 22.20   | 27.10   | 1                   | 1   | 20.0  | 16.76   | 35.8   |
| SMBJ20A              | SMBJ20CA            | LV                        | BV | 22.20   | 24.50   | 1                   | 1   | 20.0  | 18.52   | 32.4   |
| SMBJ22               | SMBJ22C             | LW                        | BW | 24.40   | 29.80   | 1                   | 1   | 22.0  | 15.23   | 39.4   |
| SMBJ22A              | SMBJ22CA            | LX                        | BX | 24.40   | 26.90   | 1                   | 1   | 22.0  | 16.90   | 35.5   |
| SMBJ24               | SMBJ24C             | LY                        | BY | 26.70   | 32.60   | 1                   | 1   | 24.0  | 13.95   | 43.0   |
| SMBJ24A              | SMBJ24CA            | LZ                        | BZ | 26.70   | 29.50   | 1                   | 1   | 24.0  | 15.42   | 38.9   |
| SMBJ26               | SMBJ26C             | MD                        | CD | 28.90   | 35.30   | 1                   | 1   | 26.0  | 12.88   | 46.6   |
| SMBJ26A              | SMBJ26CA            | ME                        | CE | 28.90   | 31.90   | 1                   | 1   | 26.0  | 14.25   | 42.1   |
| SMBJ28               | SMBJ28C             | MF                        | CF | 31.10   | 38.00   | 1                   | 1   | 28.0  | 12.00   | 50.0   |
| SMBJ28A              | SMBJ28CA            | MG                        | CG | 31.10   | 34.40   | 1                   | 1   | 28.0  | 13.22   | 45.4   |
| SMBJ30               | SMBJ30C             | MH                        | CH | 33.30   | 40.70   | 1                   | 1   | 30.0  | 11.21   | 53.5   |
| SMBJ30A              | SMBJ30CA            | MK                        | CK | 33.30   | 36.80   | 1                   | 1   | 30.0  | 12.40   | 48.4   |
| SMBJ33               | SMBJ33C             | ML                        | CL | 36.70   | 44.90   | 1                   | 1   | 33.0  | 10.17   | 59.0   |
| SMBJ33A              | SMBJ33CA            | MM                        | CM | 36.70   | 40.60   | 1                   | 1   | 33.0  | 11.26   | 53.3   |
| SMBJ36               | SMBJ36C             | MN                        | CN | 40.00   | 48.90   | 1                   | 1   | 36.0  | 9.33  | 64.3   |
| SMBJ36A              | SMBJ36CA            | MP                        | CP | 40.00   | 44.20   | 1                   | 1   | 36.0  | 10.33   | 58.1   |

## TVS DIODE

| Part Number (Uni) | Part Number (Bi) | Device Marking Code |    | Breakdown Voltage $V_{BR}$ @ $I_T$ |         |            | Maximum Reverse Leakage $I_R$ @ $V_{RWM}$ ( $\mu$ A) | Working Peak Reverse Voltage $V_{RWM}$ (V) | Maximum Reverse Surge Current $I_{PP}$ (A) | Maximum Clamping Voltage $V_C$ @ $I_{PP}$ (V) |
|-------------------|------------------|---------------------|----|------------------------------------|---------|------------|--|--|--|---|
|                   |                  | Uni                 | Bi | Min (V)                            | Max (V) | $I_T$ (mA) |  |  |  |   |
| SMBJ40            | SMBJ40C          | MQ                  | CQ | 44.40                              | 54.30   | 1          | 1  | 40.0                                       | 8.40                                       | 71.4  |
| SMBJ40A           | SMBJ40CA         | MR                  | CR | 44.40                              | 49.10   | 1          | 1  | 40.0                                       | 9.30                                       | 64.5  |
| SMBJ43            | SMBJ43C          | MS                  | CS | 47.80                              | 58.40   | 1          | 1  | 43.0                                       | 7.82                                       | 76.7  |
| SMBJ43A           | SMBJ43CA         | MT                  | CT | 47.80                              | 52.80   | 1          | 1  | 43.0                                       | 8.65                                       | 69.4  |
| SMBJ45            | SMBJ45C          | MU                  | CU | 50.00                              | 61.10   | 1          | 1  | 45.0                                       | 7.47                                       | 80.3  |
| SMBJ45A           | SMBJ45CA         | MV                  | CV | 50.00                              | 55.30   | 1          | 1  | 45.0                                       | 8.25                                       | 72.7  |
| SMBJ48            | SMBJ48C          | MW                  | CW | 53.30                              | 65.10   | 1          | 1  | 48.0                                       | 7.02                                       | 85.5  |
| SMBJ48A           | SMBJ48CA         | MX                  | CX | 53.30                              | 58.90   | 1          | 1  | 48.0                                       | 7.75                                       | 77.4  |
| SMBJ51            | SMBJ51C          | MY                  | CY | 56.70                              | 69.30   | 1          | 1  | 51.0                                       | 6.59                                       | 91.1  |
| SMBJ51A           | SMBJ51CA         | MZ                  | CZ | 56.70                              | 62.70   | 1          | 1  | 51.0                                       | 7.28                                       | 82.4  |
| SMBJ54            | SMBJ54C          | ND                  | DD | 60.00                              | 73.30   | 1          | 1  | 54.0                                       | 6.23                                       | 96.3  |
| SMBJ54A           | SMBJ54CA         | NE                  | DE | 60.00                              | 66.30   | 1          | 1  | 54.0                                       | 6.89                                       | 87.1  |
| SMBJ58            | SMBJ58C          | NF                  | DF | 64.40                              | 78.70   | 1          | 1  | 58.0                                       | 5.83                                       | 103.0   |
| SMBJ58A           | SMBJ58CA         | NG                  | DG | 64.40                              | 71.20   | 1          | 1  | 58.0                                       | 6.41                                       | 93.6  |
| SMBJ60            | SMBJ60C          | NH                  | DH | 66.70                              | 81.50   | 1          | 1  | 60.0                                       | 5.61                                       | 107.0   |
| SMBJ60A           | SMBJ60CA         | NK                  | DK | 66.70                              | 73.70   | 1          | 1  | 60.0                                       | 6.20                                       | 96.8  |
| SMBJ64            | SMBJ64C          | NL                  | DL | 71.10                              | 86.90   | 1          | 1  | 64.0                                       | 5.26                                       | 114.0   |
| SMBJ64A           | SMBJ64CA         | NM                  | DM | 71.10                              | 78.60   | 1          | 1  | 64.0                                       | 5.83                                       | 103.0   |
| SMBJ70            | SMBJ70C          | NN                  | DN | 77.80                              | 95.10   | 1          | 1  | 70.0                                       | 4.80                                       | 125.0   |
| SMBJ70A           | SMBJ70CA         | NP                  | DP | 77.80                              | 86.00   | 1          | 1  | 70.0                                       | 5.31                                       | 113.0   |
| SMBJ75            | SMBJ75C          | NQ                  | DQ | 83.30                              | 102.00  | 1          | 1  | 75.0                                       | 4.48                                       | 134.0   |
| SMBJ75A           | SMBJ75CA         | NR                  | DR | 83.30                              | 92.10   | 1          | 1  | 75.0                                       | 4.96                                       | 121.0   |
| SMBJ78            | SMBJ78C          | NS                  | DS | 86.70                              | 106.00  | 1          | 1  | 78.0                                       | 4.32                                       | 139.0   |
| SMBJ78A           | SMBJ78CA         | NT                  | DT | 86.70                              | 95.80   | 1          | 1  | 78.0                                       | 4.76                                       | 126.0   |
| SMBJ80            | SMBJ80C          | NA                  | DA | 88.96                              | 108.80  | 1          | 1  | 80.0                                       | 4.19                                       | 143.2   |
| SMBJ80A           | SMBJ80CA         | NB                  | DB | 88.80                              | 97.60   | 1          | 1  | 80.0                                       | 4.63                                       | 129.6   |
| SMBJ85            | SMBJ85C          | NU                  | DU | 94.40                              | 115.00  | 1          | 1  | 85.0                                       | 3.97                                       | 151.0   |
| SMBJ85A           | SMBJ85CA         | NV                  | DV | 94.40                              | 104.00  | 1          | 1  | 85.0                                       | 4.38                                       | 137.0   |
| SMBJ90            | SMBJ90C          | NW                  | DW | 100.00                             | 122.00  | 1          | 1  | 90.0                                       | 3.75                                       | 160.0   |
| SMBJ90A           | SMBJ90CA         | NX                  | DX | 100.00                             | 111.00  | 1          | 1  | 90.0                                       | 4.11                                       | 146.0   |
| SMBJ100           | SMBJ100C         | NY                  | DY | 111.00                             | 136.00  | 1          | 1  | 100.0                                      | 3.35                                       | 179.0   |
| SMBJ100A          | SMBJ100CA        | NZ                  | DZ | 111.00                             | 123.00  | 1          | 1  | 100.0                                      | 3.70                                       | 162.0   |
| SMBJ110           | SMBJ110C         | PD                  | ED | 122.00                             | 149.00  | 1          | 1  | 110.0                                      | 3.06                                       | 196.0   |
| SMBJ110A          | SMBJ110CA        | PE                  | EE | 122.00                             | 135.00  | 1          | 1  | 110.0                                      | 3.39                                       | 177.0   |
| SMBJ120           | SMBJ120C         | PF                  | EF | 133.00                             | 163.00  | 1          | 1  | 120.0                                      | 2.80                                       | 214.0   |
| SMBJ120A          | SMBJ120CA        | PG                  | EG | 133.00                             | 147.00  | 1          | 1  | 120.0                                      | 3.11                                       | 193.0   |
| SMBJ130           | SMBJ130C         | PH                  | EH | 144.00                             | 176.00  | 1          | 1  | 130.0                                      | 2.60                                       | 231.0   |
| SMBJ130A          | SMBJ130CA        | PK                  | EK | 144.00                             | 159.00  | 1          | 1  | 130.0                                      | 2.87                                       | 209.0   |
| SMBJ140           | SMBJ140C         | PA                  | EA | 155.68                             | 190.40  | 1          | 1  | 140.0                                      | 2.39                                       | 250.6   |
| SMBJ140A          | SMBJ140CA        | PB                  | EB | 155.00                             | 171.00  | 1          | 1  | 140.0                                      | 2.65                                       | 226.8   |
| SMBJ150           | SMBJ150C         | PL                  | EL | 167.00                             | 204.00  | 1          | 1  | 150.0                                      | 2.24                                       | 268.0   |
| SMBJ150A          | SMBJ150CA        | PM                  | EM | 167.00                             | 185.00  | 1          | 1  | 150.0                                      | 2.47                                       | 243.0   |
| SMBJ160           | SMBJ160C         | PN                  | EN | 178.00                             | 218.00  | 1          | 1  | 160.0                                      | 2.09                                       | 287.0   |
| SMBJ160A          | SMBJ160CA        | PP                  | EP | 178.00                             | 197.00  | 1          | 1  | 160.0                                      | 2.32                                       | 259.0   |
| SMBJ170           | SMBJ170C         | PQ                  | EQ | 189.00                             | 231.00  | 1          | 1  | 170.0                                      | 1.97                                       | 304.0   |
| SMBJ170A          | SMBJ170CA        | PR                  | ER | 189.00                             | 209.00  | 1          | 1  | 170.0                                      | 2.18                                       | 275.0   |
| SMBJ180           | SMBJ180C         | PS                  | ES | 200.16                             | 244.80  | 1          | 1  | 180.0                                      | 1.86                                       | 322.2   |
| SMBJ180A          | SMBJ180CA        | PT                  | ET | 200.00                             | 220.00  | 1          | 1  | 180.0                                      | 2.06                                       | 291.6   |
| SMBJ190           | SMBJ190C         | PU                  | EU | 211.28                             | 258.40  | 1          | 1  | 190.0                                      | 1.76                                       | 340.1   |
| SMBJ190A          | SMBJ190CA        | PV                  | EV | 211.00                             | 232.00  | 1          | 1  | 190.0                                      | 1.95                                       | 307.8   |
| SMBJ200A          | SMBJ200CA        | PW                  | EW | 224.00                             | 247.00  | 1          | 1  | 200.0                                      | 1.85                                       | 324.0   |
| SMBJ220A          | SMBJ220CA        | PX                  | EX | 246.00                             | 272.00  | 1          | 1  | 220.0                                      | 1.69                                       | 356.0   |
| SMBJ250A          | SMBJ250CA        | PZ                  | EZ | 279.00                             | 309.00  | 1          | 1  | 250.0                                      | 1.48                                       | 405.0   |
| SMBJ300A          | SMBJ300CA        | QE                  | FE | 335.00                             | 371.00  | 1          | 1  | 300.0                                      | 1.23                                       | 486.0   |
| SMBJ350A          | SMBJ350CA        | QG                  | FG | 391.00                             | 432.00  | 1          | 1  | 350.0                                      | 1.06                                       | 567.0   |
| SMBJ400A          | SMBJ400CA        | QK                  | FK | 447.00                             | 494.00  | 1          | 1  | 400.0                                      | 0.93                                       | 648.0   |
| SMBJ440A          | SMBJ440CA        | QM                  | FM | 492.00                             | 543.00  | 1          | 1  | 440.0                                      | 0.84                                       | 713.0   |

### Note:

1. Suffix 'A' denotes 5% tolerance device. Without 'A' denotes 10% tolerance device
2. Add suffix 'C' or 'CA' after part number to specify Bi-directional devices
3. For Bi-Directional devices having  $V_R$  of 10 volts and under, the  $I_R$  limit is double

TVS DIODE

**Typical Characteristics**

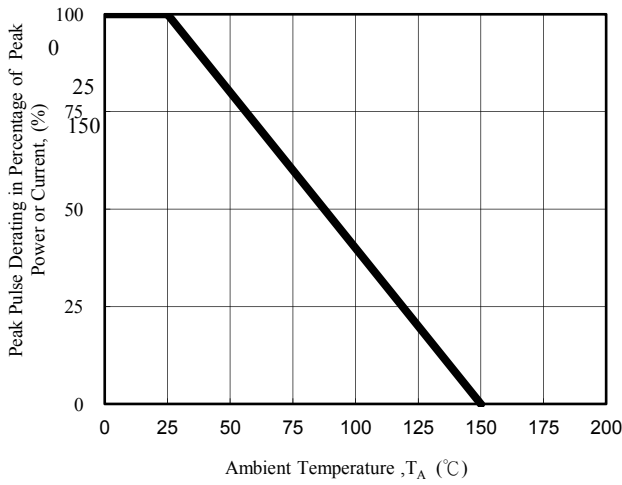


Fig. 1 - Pulse Derating Curve

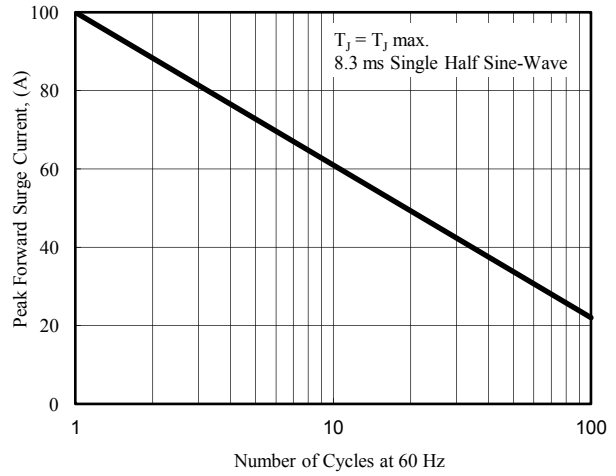


Fig. 2 - Maximum Non-Repetitive Surge Current

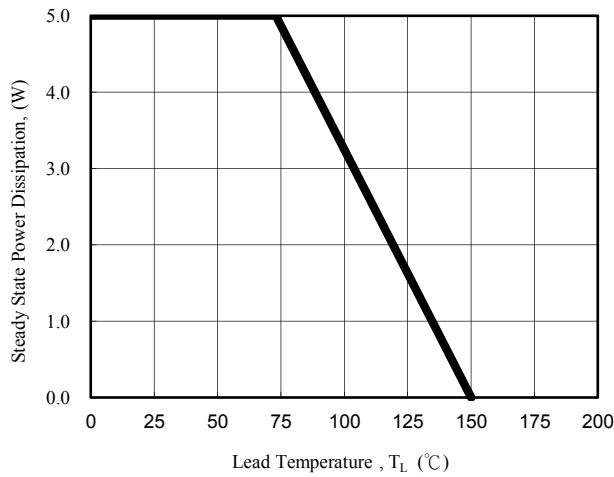


Fig. 3 - Steady State Power Derating Curve

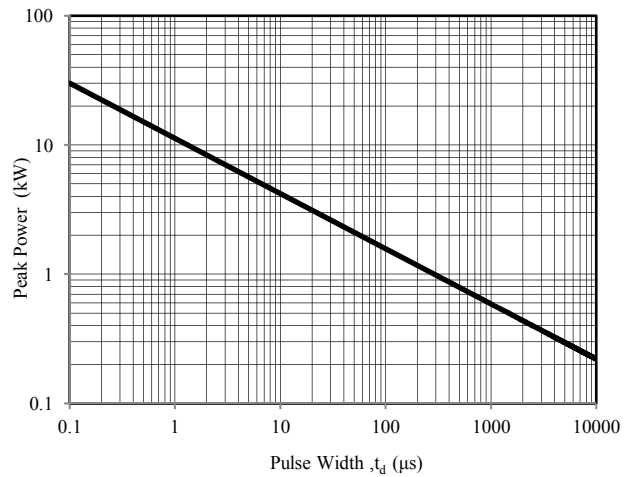


Fig. 4 - Peak Pulse Power Rating Curve

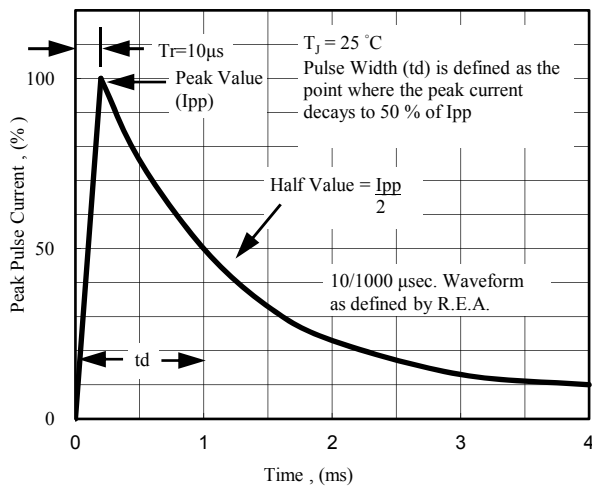


Fig. 5 - Pulse Waveform

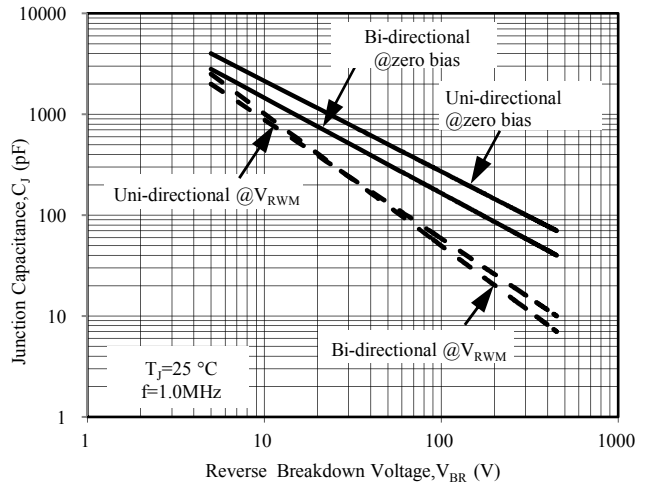
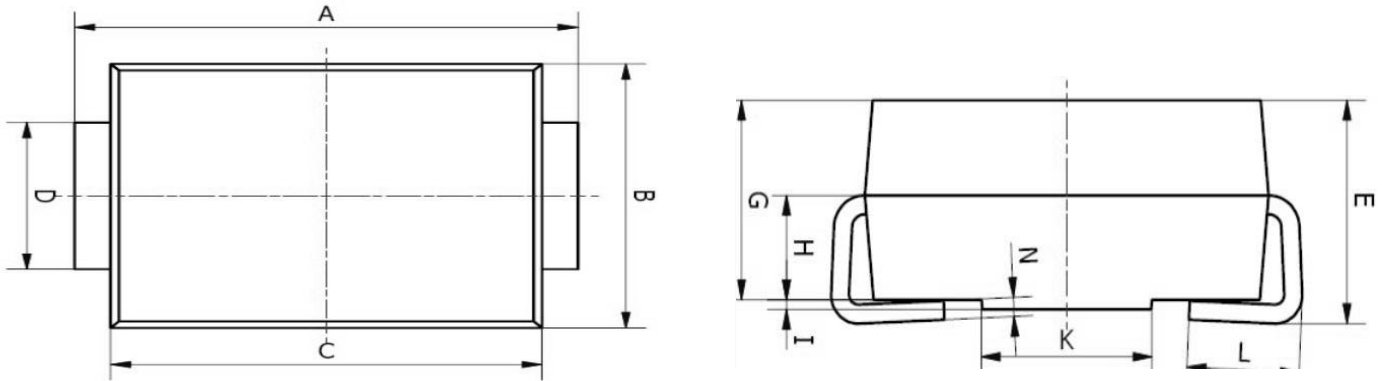


Fig. 6 - Typical Junction Capacitance

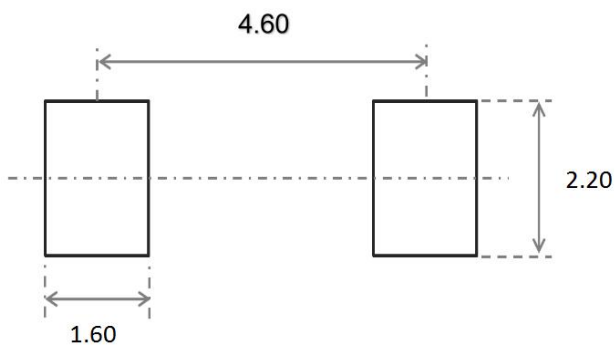
TVS DIODE

## SMB Package Outline Dimensions



| Symbol | Dimensions In Millimeters |      | Dimensions In Inches |       |
|--------|---------------------------|------|----------------------|-------|
|        | Min.                      | Max. | Min.                 | Max.  |
| A      | 5.00                      | 5.45 | 0.197                | 0.215 |
| B      | 3.20                      | 4.00 | 0.126                | 0.157 |
| C      | 4.30                      | 4.70 | 0.169                | 0.185 |
| D      | 1.80                      | 2.20 | 0.071                | 0.087 |
| E      | 2.20                      | 2.50 | 0.087                | 0.098 |
| G      | 1.90                      | 2.30 | 0.075                | 0.090 |
| H      | 0.95                      | 1.25 | 0.037                | 0.049 |
| I      | 0.05                      | 0.15 | 0.002                | 0.006 |
| K      | 1.70                      | 2.10 | 0.067                | 0.083 |
| L      | 0.90                      | 1.60 | 0.035                | 0.063 |
| N      | 0.10                      | 0.30 | 0.004                | 0.012 |

## SMB Suggested Pad Layout



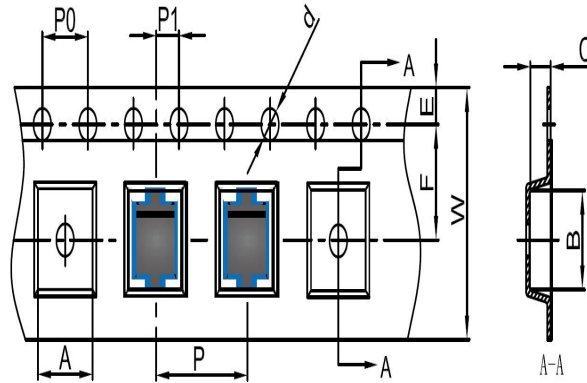
### Note:

1. Controlling dimension: in millimeters
2. General tolerance:  $\pm 0.05\text{mm}$
3. The pad layout is for reference purposes only

TVS DIODE

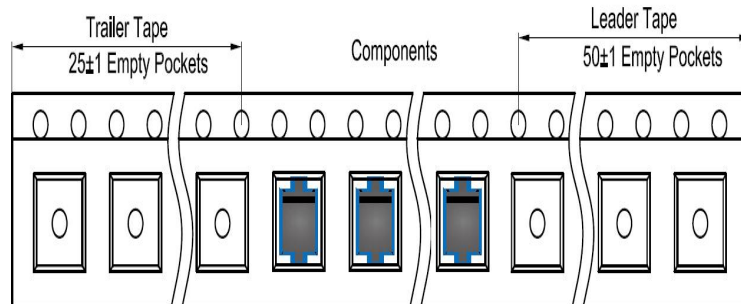
## SMB Tape and Reel

### SMB Embossed Carrier Tape

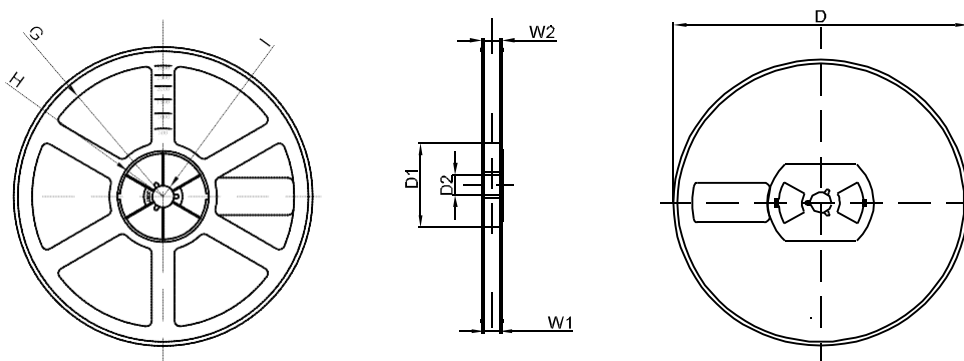


| DIMENSIONS ARE IN MILLIMETER |      |      |      |       |      |      |      |      |      |       |
|------------------------------|------|------|------|-------|------|------|------|------|------|-------|
| TYPE                         | A    | B    | C    | d     | E    | F    | P0   | P    | P1   | W     |
| SMB                          | 4.10 | 5.50 | 2.58 | Ø1.50 | 1.75 | 5.50 | 4.00 | 8.00 | 2.00 | 12.00 |
| TOLERANCE                    | ±0.1 | ±0.1 | ±0.1 | ±0.1  | ±0.1 | ±0.1 | ±0.1 | ±0.1 | ±0.1 | ±0.1  |

### SMB Tape Leader and Trailer



### SMB Reel



| DIMENSIONS ARE IN MILLIMETER |      |      |       |      |        |       |       |       |
|------------------------------|------|------|-------|------|--------|-------|-------|-------|
| REEL OPTION                  | D    | D1   | D2    | G    | H      | I     | W1    | W2    |
| 13" DIA                      | Ø330 | 75.0 | 13.00 | R165 | R37.50 | R6.50 | 12.40 | 17.60 |
| TOLERANCE                    | ±2   | ±1   | ±1    | ±1   | ±1     | ±1    | ±1    | ±1    |