

Surface Mount Transient Voltage Suppressors (TVS)

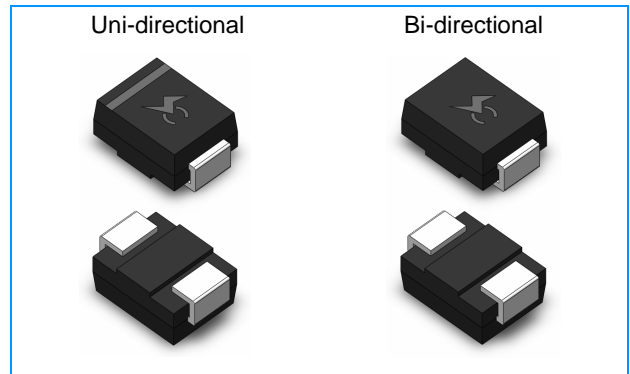
SMBJ Series 5.0 To 440 V 600W

Description

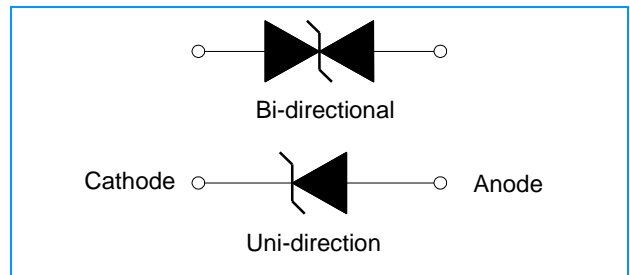
The SMBJ series is designed specifically to protect sensitive electronic equipment from voltage transients induced by lightning and other transient voltage events.

Features


- u For surface mounted applications in order to optimize board space
- u Low leakage
- u Uni and Bidirectional unit
- u Glass passivated junction
- u Low inductance
- u Excellent clamping capability
- u 600W Peak power capability at 10 × 1000μs waveform Repetition rate (duty cycle):0.01%
- u Fast response time: typically less than 1.0ps from 0 Volts to V_{BR} min
- u Typical I_R less than 5μA above 12V.
- u High Temperature soldering: 260°C/40 seconds at terminals
- u Typical maximum temperature coefficient $\Delta V_{BR} = 0.1\% \times V_{BR@25^\circ C} \times \Delta T$
- u Plastic package has Underwriters Laboratory Flammability 94V-0
- u Matte tin lead-free Plated
- u Halogen free and RoHS compliant
- u Typical failure mode is short from over-specified voltage or current
- u Whisker test is conducted based on JEDEC JESD201A per its table 4a and 4c
- u IEC-61000-4-2 ESD 15kV(Air), 8kV (Contact)
- u ESD protection of data lines in accordance with IEC 61000-4-2 (IEC801-2)
- u EFT protection of data lines in accordance with IEC 61000-4-4 (IEC801-4)



Functional Diagram



Agency Approvals

| AGENCY | AGENCY FILE NUMBER |
|--|--------------------|
|  | E341027 |

Applications

TVS devices are ideal for the protection of I/O interfaces, V_{CC} bus and other vulnerable circuits used in Telecom, Computer, Industrial and Consumer electronic applications.

Maximum Ratings ($T_A=25^\circ C$ unless otherwise noted)

| Parameter | Symbol | Value | Unit |
|--|----------------|----------------|------------|
| Peak Pulse Power Dissipation with a 10/1000μs waveform (Fig.1)(Note 1), (Note 2) | P_{PPM} | 600 | Watts |
| Peak Pulse Current with a 10/1000μs waveform.(Note1, Fig.3) | I_{PP} | See Next Table | Amps |
| Power Dissipation on Infinite Heat Sink at $T_L=75^\circ C$ | $P_{M(AV)}$ | 5.0 | Watt |
| Peak Forward Surge Current, 8.3ms Single Half Sine Wave (Note 3) | I_{FSM} | 100 | Amps |
| Maximum Instantaneous Forward Voltage at 25A for Unidirectional Only (Note 4) | V_F | 3.5/5.0 | Voltage |
| Operating junction and Storage Temperature Range. | T_J, T_{STG} | -55 to +150 | $^\circ C$ |

Notes:

1. Non-repetitive current pulse, per Fig. 3 and derated above $T_A = 25^\circ C$ per Fig. 2.
2. Mounted on 5.0mm x 5.0mm (0.03mm thick) Copper Pads to each terminal.
3. 8.3ms single half sine-wave, or equivalent square wave, Duty cycle = 4 pulses per minutes maximum.
4. $V_F < 3.5V$ for $V_{BR} < 200V$ and $V_F < 6.5V$ for $V_{BR} > 201V$.

Surface Mount Transient Voltage Suppressors (TVS)

SMBJ Series 5.0 To 440 V 600W

Electrical Characteristics (T_A=25°C unless otherwise noted)

| Part Number | | Marking | | Reverse Stand-Off Voltage V _{RWM} (V) | Breakdown Voltage V _{BR} (V) @I _T | | Test Current I _T (mA) | Maximum Clamping Voltage V _C @I _{PP} (V) | Maximum Peak Pulse Current I _{PP} (A) | Maximum Reverse Leakage I _R @V _{RWM} (μA) |
|-------------|-----------|---------|----|--|---|-------|----------------------------------|--|--|---|
| Uni | Bi | Uni | Bi | | MIN | MAX | | | | |
| SMBJ5.0 | SMBJ5.0C | KD | AD | 5.0 | 6.40 | 7.30 | 10 | 9.6 | 62.50 | 800 |
| SMBJ5.0A | SMBJ5.0CA | KE | AE | 5.0 | 6.40 | 7.00 | 10 | 9.2 | 65.22 | 800 |
| SMBJ6.0 | SMBJ6.0C | KF | AF | 6.0 | 6.67 | 8.15 | 10 | 11.4 | 52.63 | 800 |
| SMBJ6.0A | SMBJ6.0CA | KG | AG | 6.0 | 6.67 | 7.37 | 10 | 10.3 | 58.25 | 800 |
| SMBJ6.5 | SMBJ6.5C | KH | AH | 6.5 | 7.22 | 8.82 | 10 | 12.3 | 48.78 | 500 |
| SMBJ6.5A | SMBJ6.5CA | KK | AK | 6.5 | 7.22 | 7.98 | 10 | 11.2 | 53.57 | 500 |
| SMBJ7.0 | SMBJ7.0C | KL | AL | 7.0 | 7.78 | 9.51 | 10 | 13.3 | 45.11 | 200 |
| SMBJ7.0A | SMBJ7.0CA | KM | AM | 7.0 | 7.78 | 8.60 | 10 | 12.0 | 50.00 | 200 |
| SMBJ7.5 | SMBJ7.5C | KN | AN | 7.5 | 8.33 | 10.20 | 1 | 14.3 | 41.96 | 100 |
| SMBJ7.5A | SMBJ7.5CA | KP | AP | 7.5 | 8.33 | 9.21 | 1 | 12.9 | 46.51 | 100 |
| SMBJ8.0 | SMBJ8.0C | KQ | AQ | 8.0 | 8.89 | 10.90 | 1 | 15.0 | 40.00 | 50 |
| SMBJ8.0A | SMBJ8.0CA | KR | AR | 8.0 | 8.89 | 9.83 | 1 | 13.6 | 44.12 | 50 |
| SMBJ8.5 | SMBJ8.5C | KS | AS | 8.5 | 9.44 | 11.50 | 1 | 15.9 | 37.74 | 10 |
| SMBJ8.5A | SMBJ8.5CA | KT | AT | 8.5 | 9.44 | 10.40 | 1 | 14.4 | 41.67 | 10 |
| SMBJ9.0 | SMBJ9.0C | KU | AU | 9.0 | 10.00 | 12.20 | 1 | 16.9 | 35.50 | 5 |
| SMBJ9.0A | SMBJ9.0CA | KV | AV | 9.0 | 10.00 | 11.10 | 1 | 15.4 | 38.96 | 5 |
| SMBJ10 | SMBJ10C | KW | AA | 10.0 | 11.10 | 13.60 | 1 | 18.8 | 31.91 | 5 |
| SMBJ10A | SMBJ10CA | KX | AX | 10.0 | 11.10 | 12.30 | 1 | 17.0 | 35.29 | 5 |
| SMBJ11 | SMBJ11C | KY | AY | 11.0 | 12.20 | 14.90 | 1 | 20.1 | 29.85 | 5 |
| SMBJ11A | SMBJ11CA | KZ | WZ | 11.0 | 12.20 | 13.50 | 1 | 18.2 | 32.97 | 5 |
| SMBJ12 | SMBJ12C | LD | BD | 12.0 | 13.30 | 16.30 | 1 | 22.0 | 27.27 | 5 |
| SMBJ12A | SMBJ12CA | LE | BE | 12.0 | 13.30 | 14.70 | 1 | 19.9 | 30.15 | 5 |
| SMBJ13 | SMBJ13C | LF | BF | 13.0 | 14.40 | 17.60 | 1 | 23.8 | 25.21 | 5 |
| SMBJ13A | SMBJ13CA | LG | BG | 13.0 | 14.40 | 15.90 | 1 | 21.5 | 27.91 | 5 |
| SMBJ14 | SMBJ14C | LH | BH | 14.0 | 15.60 | 19.10 | 1 | 25.8 | 23.26 | 5 |
| SMBJ14A | SMBJ14CA | LK | BK | 14.0 | 15.60 | 17.20 | 1 | 23.2 | 25.86 | 5 |
| SMBJ15 | SMBJ15C | LL | BL | 15.0 | 16.70 | 20.40 | 1 | 26.9 | 22.30 | 5 |
| SMBJ15A | SMBJ15CA | LM | BM | 15.0 | 16.70 | 18.50 | 1 | 24.4 | 24.59 | 5 |
| SMBJ16 | SMBJ16C | LN | BN | 16.0 | 17.80 | 21.80 | 1 | 28.8 | 20.83 | 5 |
| SMBJ16A | SMBJ16CA | LP | BP | 16.0 | 17.80 | 19.70 | 1 | 26.0 | 23.08 | 5 |
| SMBJ17 | SMBJ17C | LQ | BQ | 17.0 | 18.90 | 23.10 | 1 | 30.5 | 19.67 | 5 |
| SMBJ17A | SMBJ17CA | LR | BR | 17.0 | 18.90 | 20.90 | 1 | 27.6 | 21.74 | 5 |
| SMBJ18 | SMBJ18C | LS | BS | 18.0 | 20.00 | 24.40 | 1 | 32.2 | 18.63 | 5 |
| SMBJ18A | SMBJ18CA | LT | BT | 18.0 | 20.00 | 22.10 | 1 | 29.2 | 20.55 | 5 |
| SMBJ19 | SMBJ19C | LA | BA | 19.0 | 21.13 | 25.76 | 1 | 34.0 | 17.64 | 5 |
| SMBJ19A | SMBJ19CA | LB | BB | 19.0 | 21.10 | 23.30 | 1 | 30.8 | 19.49 | 5 |
| SMBJ20 | SMBJ20C | LU | BU | 20.0 | 22.20 | 27.10 | 1 | 35.8 | 16.67 | 5 |
| SMBJ20A | SMBJ20CA | LV | BV | 20.0 | 22.20 | 24.50 | 1 | 32.4 | 18.52 | 5 |
| SMBJ22 | SMBJ22C | LW | BW | 22.0 | 24.40 | 29.80 | 1 | 39.4 | 15.23 | 5 |
| SMBJ22A | SMBJ22CA | LX | BX | 22.0 | 24.40 | 26.90 | 1 | 35.5 | 16.90 | 5 |
| SMBJ24 | SMBJ24C | LY | BY | 24.0 | 26.70 | 32.60 | 1 | 43.0 | 13.95 | 5 |
| SMBJ24A | SMBJ24CA | LZ | BZ | 24.0 | 26.70 | 29.50 | 1 | 38.9 | 15.42 | 5 |
| SMBJ26 | SMBJ26C | MD | CD | 26.0 | 28.90 | 35.30 | 1 | 46.6 | 12.88 | 5 |
| SMBJ26A | SMBJ26CA | ME | CE | 26.0 | 28.90 | 31.90 | 1 | 42.1 | 14.25 | 5 |
| SMBJ28 | SMBJ28C | MF | CF | 28.0 | 31.10 | 38.00 | 1 | 50.0 | 12.00 | 5 |
| SMBJ28A | SMBJ28CA | MG | CG | 28.0 | 31.10 | 34.40 | 1 | 45.4 | 13.22 | 5 |
| SMBJ30 | SMBJ30C | MH | CH | 30.0 | 33.30 | 40.70 | 1 | 53.5 | 11.21 | 5 |
| SMBJ30A | SMBJ30CA | MK | CK | 30.0 | 33.30 | 36.80 | 1 | 48.4 | 12.40 | 5 |
| SMBJ33 | SMBJ33C | ML | CL | 33.0 | 36.70 | 44.90 | 1 | 59.0 | 10.17 | 5 |
| SMBJ33A | SMBJ33CA | MM | CM | 33.0 | 36.70 | 40.60 | 1 | 53.3 | 11.26 | 5 |
| SMBJ36 | SMBJ36C | MN | CN | 36.0 | 40.00 | 48.90 | 1 | 64.3 | 9.33 | 5 |
| SMBJ36A | SMBJ36CA | MP | CP | 36.0 | 40.00 | 44.20 | 1 | 58.1 | 10.33 | 5 |
| SMBJ40 | SMBJ40C | MQ | CQ | 40.0 | 44.40 | 54.30 | 1 | 71.4 | 8.40 | 5 |
| SMBJ40A | SMBJ40CA | MR | CR | 40.0 | 44.40 | 49.10 | 1 | 64.5 | 9.30 | 5 |
| SMBJ43 | SMBJ43C | MS | CS | 43.0 | 47.80 | 58.40 | 1 | 76.7 | 7.82 | 5 |
| SMBJ43A | SMBJ43CA | MT | CT | 43.0 | 47.80 | 52.80 | 1 | 69.4 | 8.65 | 5 |

Surface Mount Transient Voltage Suppressors (TVS)

SMBJ Series 5.0 To 440 V 600W
Electrical Characteristics (T_A=25°C unless otherwise noted) (Continue)

| Part Number | | Marking | | Reverse Stand-Off Voltage V _{RWM} (V) | Breakdown Voltage V _{BR} (V) @I _T | | Test Current I _T (mA) | Maximum Clamping Voltage V _C @I _{PP} (V) | Maximum Peak Pulse Current I _{PP} (A) | Maximum Reverse Leakage I _R @V _{RWM} (μA) |
|-------------|-----------|---------|----|--|---|--------|----------------------------------|--|--|---|
| Uni | Bi | Uni | Bi | | MIN | MAX | | | | |
| SMBJ45 | SMBJ45C | MU | CU | 45.0 | 50.00 | 61.10 | 1 | 80.3 | 7.47 | 5 |
| SMBJ45A | SMBJ45CA | MV | CV | 45.0 | 50.00 | 55.30 | 1 | 72.7 | 8.25 | 5 |
| SMBJ48 | SMBJ48C | MW | CW | 48.0 | 53.30 | 65.10 | 1 | 85.5 | 7.02 | 5 |
| SMBJ48A | SMBJ48CA | MX | CX | 48.0 | 53.30 | 58.90 | 1 | 77.4 | 7.75 | 5 |
| SMBJ51 | SMBJ51C | MY | CY | 51.0 | 56.70 | 69.30 | 1 | 91.1 | 6.59 | 5 |
| SMBJ51A | SMBJ51CA | MZ | CZ | 51.0 | 56.70 | 62.70 | 1 | 82.4 | 7.28 | 5 |
| SMBJ54 | SMBJ54C | ND | DD | 54.0 | 60.00 | 73.30 | 1 | 96.3 | 6.23 | 5 |
| SMBJ54A | SMBJ54CA | NE | DE | 54.0 | 60.00 | 66.30 | 1 | 87.1 | 6.89 | 5 |
| SMBJ58 | SMBJ58C | NF | DF | 58.0 | 64.40 | 78.70 | 1 | 103.0 | 5.83 | 5 |
| SMBJ58A | SMBJ58CA | NG | DG | 58.0 | 64.40 | 71.20 | 1 | 93.6 | 6.41 | 5 |
| SMBJ60 | SMBJ60C | NH | DH | 60.0 | 66.70 | 81.50 | 1 | 107.0 | 5.61 | 5 |
| SMBJ60A | SMBJ60CA | NK | DK | 60.0 | 66.70 | 73.70 | 1 | 96.8 | 6.20 | 5 |
| SMBJ64 | SMBJ64C | NL | DL | 64.0 | 71.10 | 86.90 | 1 | 114.0 | 5.26 | 5 |
| SMBJ64A | SMBJ64CA | NM | DM | 64.0 | 71.10 | 78.60 | 1 | 103.0 | 5.83 | 5 |
| SMBJ70 | SMBJ70C | NN | DN | 70.0 | 77.80 | 95.10 | 1 | 125.0 | 4.80 | 5 |
| SMBJ70A | SMBJ70CA | NP | DP | 70.0 | 77.80 | 86.00 | 1 | 113.0 | 5.31 | 5 |
| SMBJ75 | SMBJ75C | NQ | DQ | 75.0 | 83.30 | 102.00 | 1 | 134.0 | 4.48 | 5 |
| SMBJ75A | SMBJ75CA | NR | DR | 75.0 | 83.30 | 92.10 | 1 | 121.0 | 4.96 | 5 |
| SMBJ78 | SMBJ78C | NS | DS | 78.0 | 86.70 | 106.00 | 1 | 139.0 | 4.32 | 5 |
| SMBJ78A | SMBJ78CA | NT | DT | 78.0 | 86.70 | 95.80 | 1 | 126.0 | 4.76 | 5 |
| SMBJ80 | SMBJ80C | NA | DA | 80.0 | 88.96 | 108.80 | 1 | 143.2 | 4.19 | 5 |
| SMBJ80A | SMBJ80CA | NB | DB | 80.0 | 88.80 | 97.60 | 1 | 129.6 | 4.63 | 5 |
| SMBJ85 | SMBJ85C | NU | DU | 85.0 | 94.40 | 115.00 | 1 | 151.0 | 3.97 | 5 |
| SMBJ85A | SMBJ85CA | NV | DV | 85.0 | 94.40 | 104.00 | 1 | 137.0 | 4.38 | 5 |
| SMBJ90 | SMBJ90C | NW | DW | 90.0 | 100.00 | 122.00 | 1 | 160.0 | 3.75 | 5 |
| SMBJ90A | SMBJ90CA | NX | DX | 90.0 | 100.00 | 111.00 | 1 | 146.0 | 4.11 | 5 |
| SMBJ100 | SMBJ100C | NY | DY | 100.0 | 111.00 | 136.00 | 1 | 179.0 | 3.35 | 5 |
| SMBJ100A | SMBJ100CA | NZ | DZ | 100.0 | 111.00 | 123.00 | 1 | 162.0 | 3.70 | 5 |
| SMBJ110 | SMBJ110C | PD | ED | 110.0 | 122.00 | 149.00 | 1 | 196.0 | 3.06 | 5 |
| SMBJ110A | SMBJ110CA | PE | EE | 110.0 | 122.00 | 135.00 | 1 | 177.0 | 3.39 | 5 |
| SMBJ120 | SMBJ120C | PF | EF | 120.0 | 133.00 | 163.00 | 1 | 214.0 | 2.80 | 5 |
| SMBJ120A | SMBJ120CA | PG | EG | 120.0 | 133.00 | 147.00 | 1 | 193.0 | 3.11 | 5 |
| SMBJ130 | SMBJ130C | PH | EH | 130.0 | 144.00 | 176.00 | 1 | 231.0 | 2.60 | 5 |
| SMBJ130A | SMBJ130CA | PK | EK | 130.0 | 144.00 | 159.00 | 1 | 209.0 | 2.87 | 5 |
| SMBJ140 | SMBJ140C | PA | EA | 140.0 | 155.68 | 190.40 | 1 | 250.6 | 2.39 | 5 |
| SMBJ140A | SMBJ140CA | PB | EB | 140.0 | 155.00 | 171.00 | 1 | 226.8 | 2.65 | 5 |
| SMBJ150 | SMBJ150C | PL | EL | 150.0 | 167.00 | 204.00 | 1 | 268.0 | 2.24 | 5 |
| SMBJ150A | SMBJ150CA | PM | EM | 150.0 | 167.00 | 185.00 | 1 | 243.0 | 2.47 | 5 |
| SMBJ160 | SMBJ160C | PN | EN | 160.0 | 178.00 | 218.00 | 1 | 287.0 | 2.09 | 5 |
| SMBJ160A | SMBJ160CA | PP | EP | 160.0 | 178.00 | 197.00 | 1 | 259.0 | 2.32 | 5 |
| SMBJ170 | SMBJ170C | PQ | EQ | 170.0 | 189.00 | 231.00 | 1 | 304.0 | 1.97 | 5 |
| SMBJ170A | SMBJ170CA | PR | ER | 170.0 | 189.00 | 209.00 | 1 | 275.0 | 2.18 | 5 |
| SMBJ180 | SMBJ180C | PS | ES | 180.0 | 201.00 | 244.80 | 1 | 322.2 | 1.86 | 5 |
| SMBJ180A | SMBJ180CA | PT | ET | 180.0 | 201.00 | 220.00 | 1 | 291.6 | 2.06 | 5 |
| SMBJ190 | SMBJ190C | PU | EU | 190.0 | 211.21 | 258.40 | 1 | 340.1 | 1.76 | 5 |
| SMBJ190A | SMBJ190CA | PV | EV | 190.0 | 211.00 | 232.00 | 1 | 307.8 | 1.95 | 5 |
| SMBJ200A | SMBJ200CA | PW | EW | 200.0 | 224.00 | 247.00 | 1 | 324.0 | 1.85 | 5 |
| SMBJ220A | SMBJ220CA | PX | EX | 220.0 | 246.00 | 272.00 | 1 | 356.0 | 1.69 | 5 |
| SMBJ250A | SMBJ250CA | PZ | EZ | 250.0 | 279.00 | 309.00 | 1 | 405.0 | 1.48 | 5 |
| SMBJ300A | SMBJ300CA | QE | FE | 300.0 | 335.00 | 371.00 | 1 | 486.0 | 1.23 | 5 |
| SMBJ350A | SMBJ350CA | QG | FG | 350.0 | 391.00 | 432.00 | 1 | 567.0 | 1.06 | 5 |
| SMBJ400A | SMBJ400CA | QK | FK | 400.0 | 447.00 | 494.00 | 1 | 648.0 | 0.93 | 5 |
| SMBJ440A | SMBJ440CA | QM | FM | 440.0 | 492.00 | 543.00 | 1 | 713.0 | 0.84 | 5 |

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

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Ratings and Characteristic Curves ($T_A=25^\circ\text{C}$ unless otherwise noted)

Figure 1 - Peak Pulse Power Rating Curve

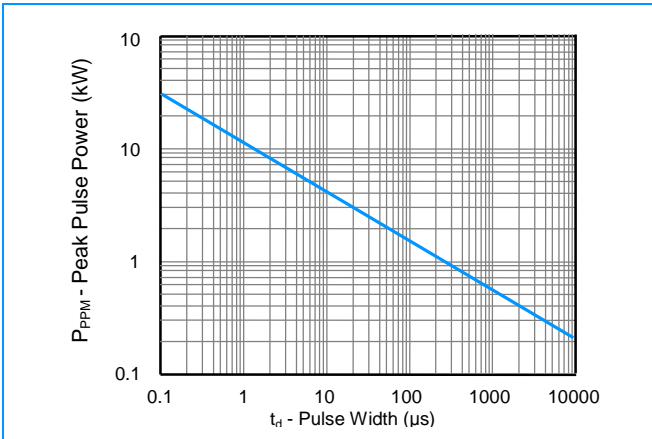


Figure 2 - Pulse Derating Curve

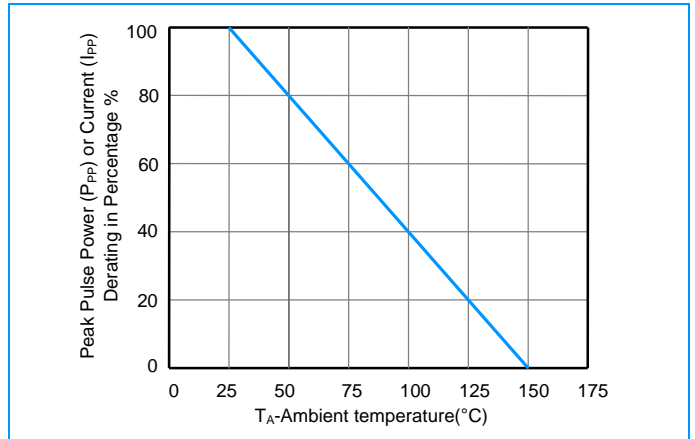


Figure 3 - Pulse Waveform

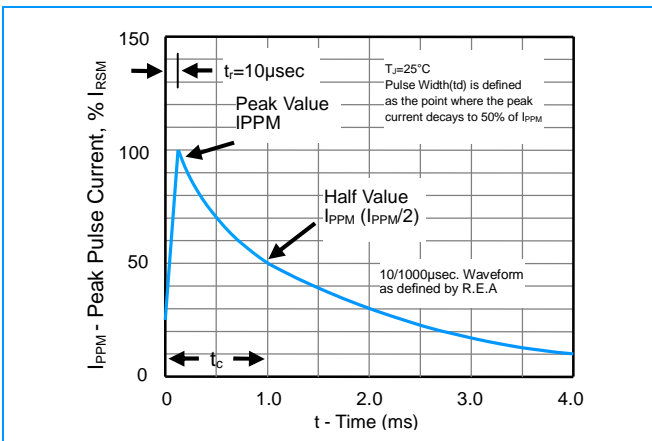


Figure 4 - Typical Junction Capacitance

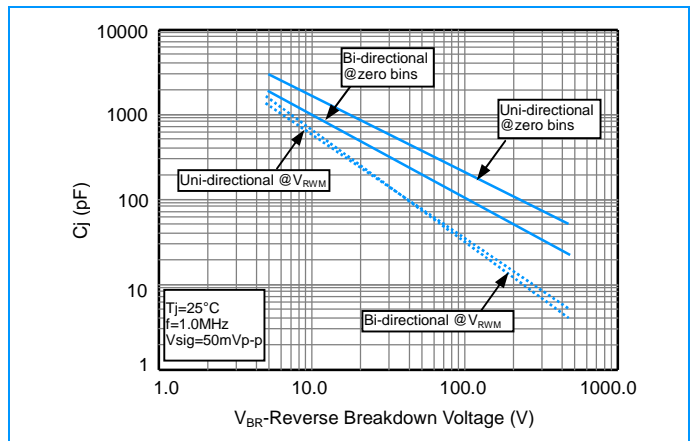


Figure 5 - Steady State Power Derating Curve

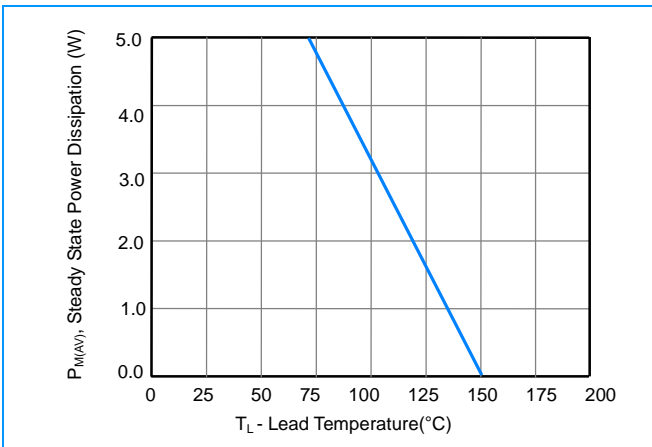
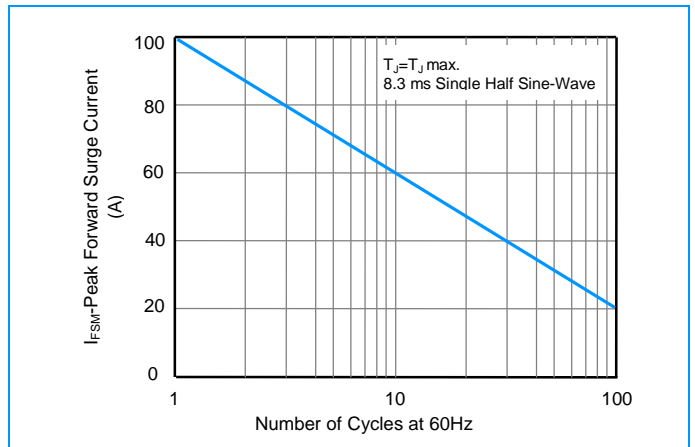


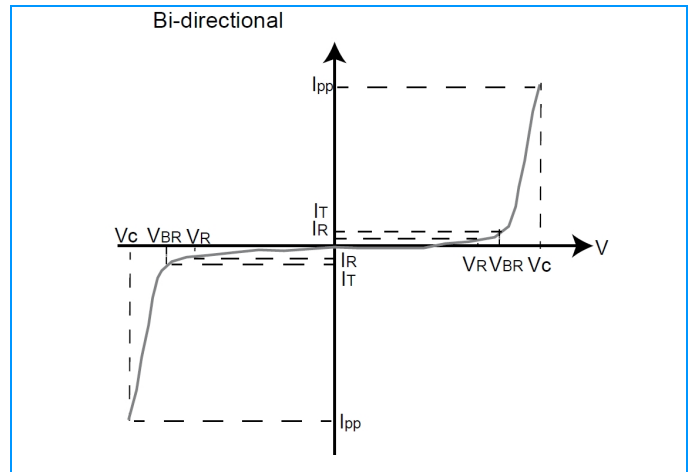
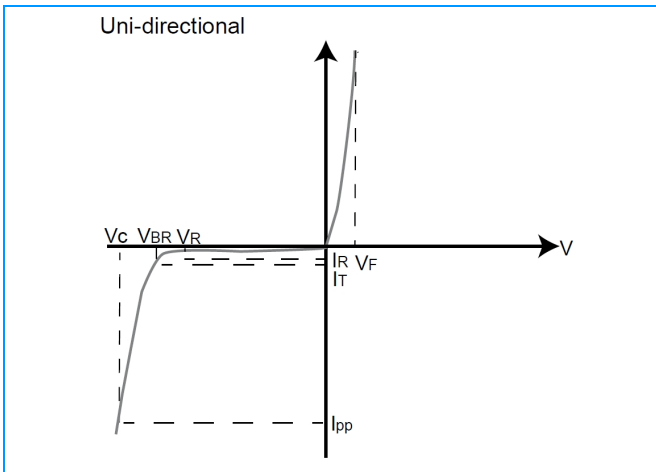
Figure 6 - Maximum Non-Repetitive Surge Current



Surface Mount Transient Voltage Suppressors (TVS)

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I-V Curve Characteristics



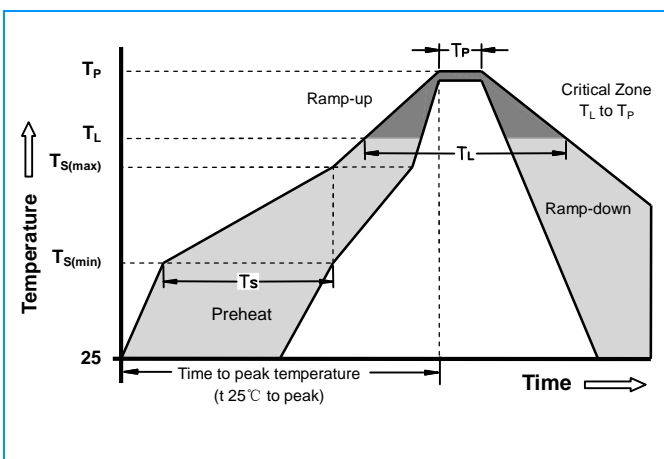
Physical Specifications

| | |
|-----------------|--|
| Weight | 0.003 ounce, 0.093 gram |
| Case | JEDEC DO-214AA Molded Plastic over glass passivated junction |
| Polarity | Color band denotes cathode except Bipolar |
| Terminal | Matte Tin-plated leads, Solderable per JESD22-B102D |

Environmental Specifications

| | |
|---------------------------|-------------|
| Temperature Cycle | JESD22-A104 |
| Pressure Cooker | JESD22-A102 |
| High Temp. Storage | JESD22-A103 |
| HTRB | JESD22-A108 |
| Thermal Shock | JESD22-A106 |

Soldering Parameters

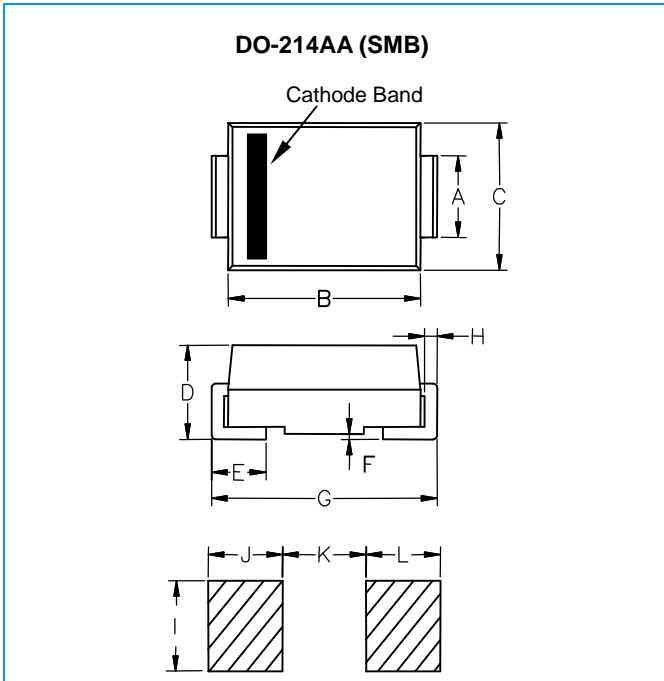


| Reflow Condition | | Lead-free assembly |
|--|------------------------------------|--------------------|
| Pre Heat | - Temperature Min ($T_{S(min)}$) | 150°C |
| | - Temperature Max ($T_{S(max)}$) | 200°C |
| | - Time (min to max) (T_s) | 60 - 180 Seconds |
| Average ramp up rate (Liquidus Temp T_L) to peak | | 3°C/second max |
| $T_{S(max)}$ to T_L - Ramp-up Rate | | 3°C/second max |
| Reflow | - Temperature (T_L) (Liquidus) | 217°C |
| | - Time (min to max) (T_L) | 60 - 150 Seconds |
| Peak Temperature (T_P) | | 260 +0/-5°C |
| Time within 5°C of actual peak Temperature (t_p) | | 20 - 40 Seconds |
| Ramp-down Rate | | 6°C/second max |
| Time 25°C to peak Temperature (T_P) | | 8 minutes Max |
| Do not exceed | | 280°C |

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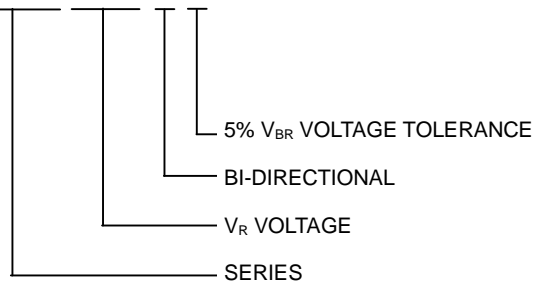
Dimensions



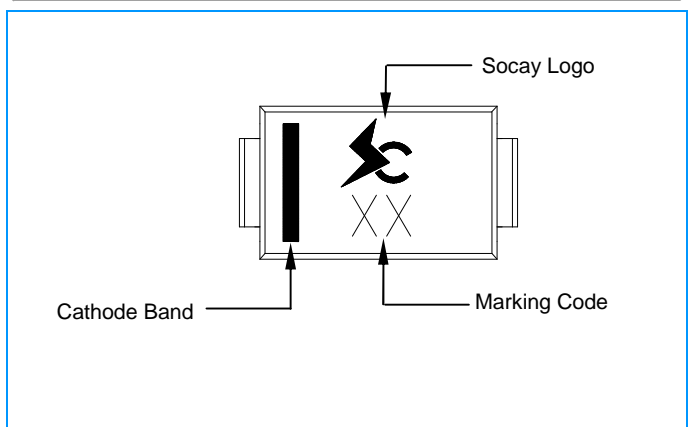
| Dimensions | Inches | | Millimeters | |
|------------|--------|-------|-------------|-------|
| | Min | Max | Min | Max |
| A | 0.077 | 0.087 | 1.960 | 2.200 |
| B | 0.171 | 0.191 | 4.350 | 4.850 |
| C | 0.130 | 0.155 | 3.300 | 3.940 |
| D | 0.084 | 0.096 | 2.130 | 2.440 |
| E | 0.030 | 0.060 | 0.750 | 1.520 |
| F | - | 0.008 | - | 0.203 |
| G | 0.201 | 0.216 | 5.100 | 5.500 |
| H | 0.006 | 0.012 | 0.152 | 0.305 |
| I | 0.089 | - | 2.260 | - |
| J | 0.085 | - | 2.160 | - |
| K | - | 0.107 | - | 2.740 |
| L | 0.085 | - | 2.160 | - |

Part Numbering

SMBJ × × × CA



Part Marking



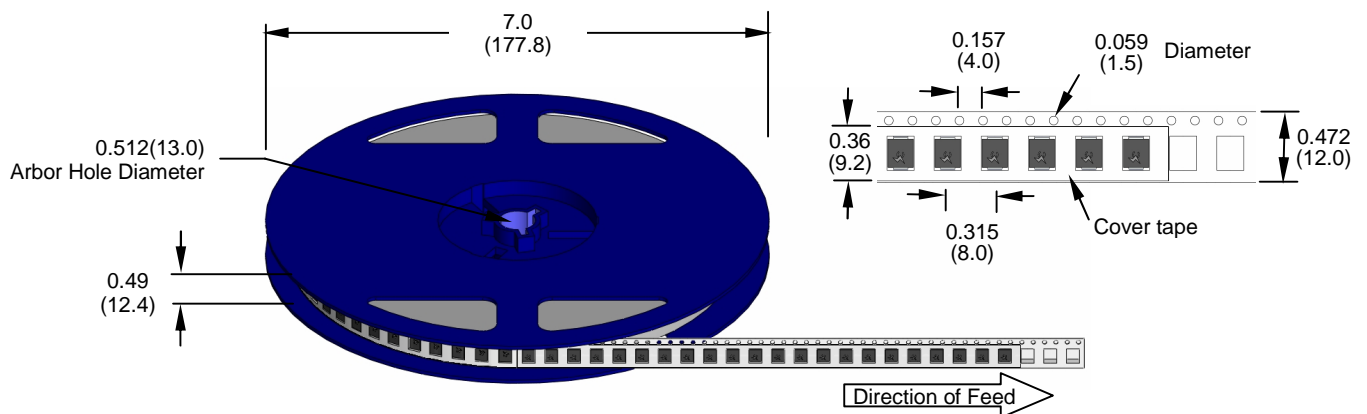
Surface Mount Transient Voltage Suppressors (TVS)

SMBJ Series 5.0 To 440 V 600W

Packaging

| Part Number | Component Package | Quantity | Packaging Option | Packaging Specification |
|-------------|-------------------|----------|--------------------------|-------------------------|
| SMBJXXXXX | DO-214AA | 500 | Tape & Reel -12mm/7"tape | EIA STD RS-481 |

Tape and Reel Specifications



Dimensions are in inches
(and millimeters)