

**Working Voltage: 3.3 V**  
**Peak Pulse Power: 600 W**

## Surface Mount Transient Voltage Suppressors

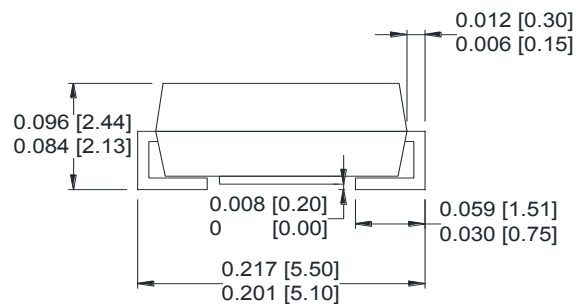
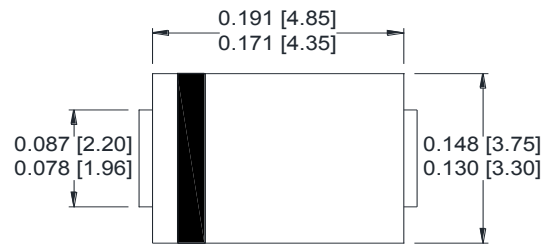
### Features

- Glass passivated chip
- 600 W peak pulse power capability with a 10/1000  $\mu$ s waveform, repetitive rate (duty cycle):0.01 %
- Low leakage
- Uni unit
- Excellent clamping capability
- Very fast response time
- RoHS compliant

### Mechanical Data

- Case: Molded plastic
- Epoxy: UL 94V-0 rate flame retardant
- Lead: Solderable per MIL-STD-750, method 2026
- Polarity: Color band denotes cathode end except Bipolar
- Mounting position: Any

SMB/ DO-214AA



Dimensions: inch[mm]

### Maximum Ratings( $T_A=25^\circ\text{C}$ unless otherwise noted)

| Parameter   | Symbol         | Value        | Unit             |
|---|----------------|--------------|------------------|
| Peak power dissipation with a 10/1000 $\mu$ s waveform <sup>(1)</sup>                       | $P_{PP}$       | 600          | W                |
| Maximum clamping voltage @ $I_{PP} = 76.9\text{A}$  | $V_C$          | 8            | V                |
| Power dissipation on infinite heatsink at $T_L = 75^\circ\text{C}$                          | $P_D$          | 5.0          | W                |
| Operating junction and storage temperature range  | $T_J, T_{STG}$ | - 55 to +150 | $^\circ\text{C}$ |
| Break down voltage @ $I_T = 10\text{ mA}$   | $V_B$          | 5.2~6.0      | V                |
| Maximum reverse leakage @ $V_R = 3.3\text{ V}$  | $I_R$          | 800          | $\mu\text{A}$    |
| Peak forward surge current, 8.3 ms single half sine-wave unidirectional only <sup>(2)</sup> | $I_{FSM}$      | 100          | A                |
| Maximum instantaneous forward voltage at 50 A for unidirectional only <sup>(3)</sup>        | $V_F$          | 3.5          | V                |

**Note:**

(1)Non-repetitive current pulse per Fig.5 and derated above  $T_A=25^\circ\text{C}$  per Fig.1

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



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

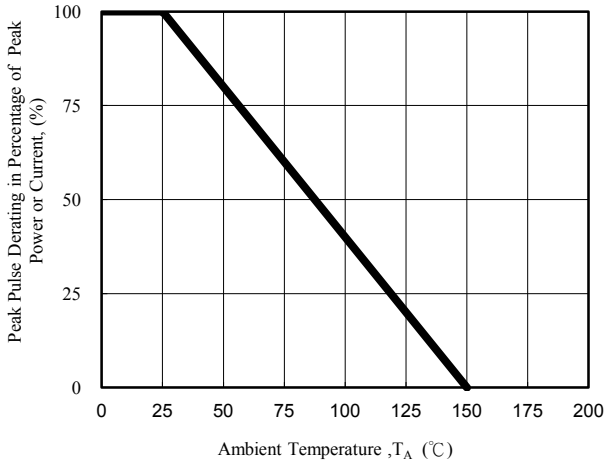


Fig. 1 - Pulse Derating Curve

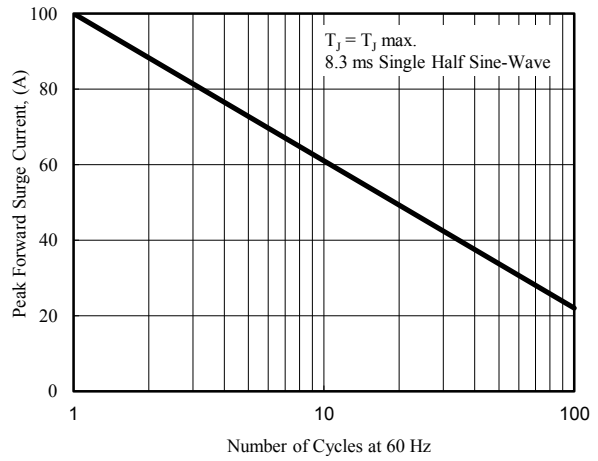


Fig. 2 - Maximum Non-Repetitive Surge Current

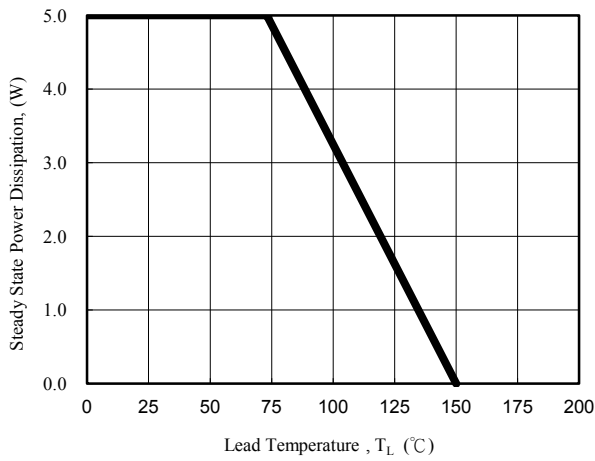


Fig. 3 - Steady State Power Derating Curve

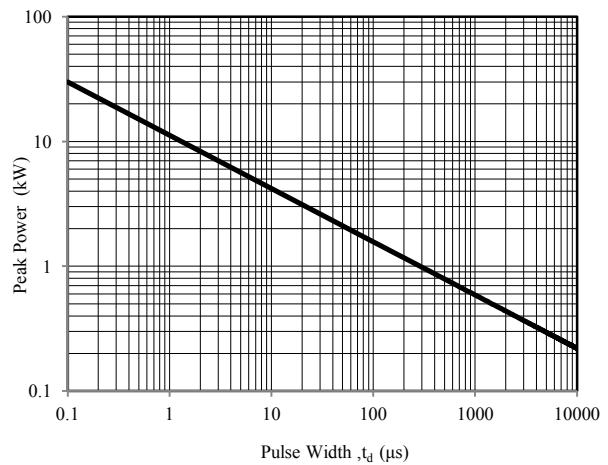


Fig. 4 - Peak Pulse Power Rating Curve

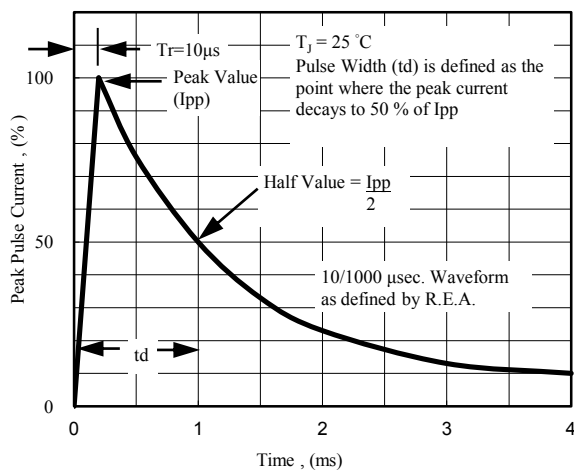


Fig. 5 - Pulse Waveform

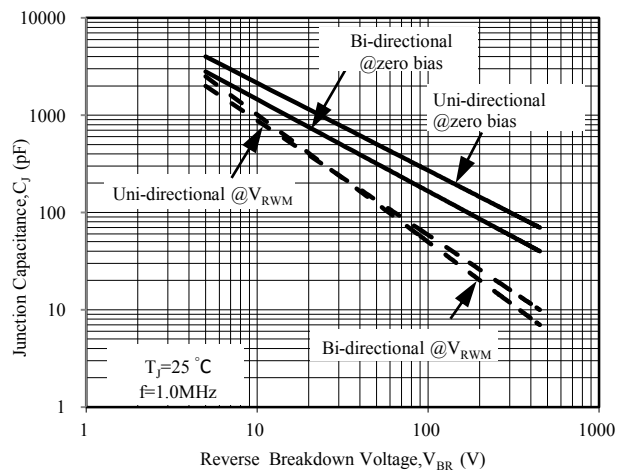


Fig. 6 - Typical Junction Capacitance