



**Working Voltage: 3.3V**  
**Peak Pulse Power: 200 W**

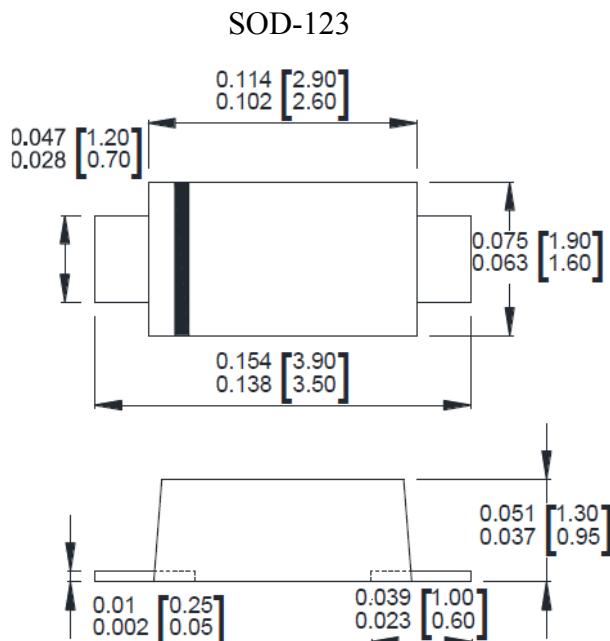
## Surface Mount Transient Voltage Suppressors

### Features

- Glass passivated chip
- 200 W peak pulse power capability with a 10/1000  $\mu$ s waveform, repetitive rate (duty cycle): 0.01 %
- Low leakage
- Unidirectional 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
- Device Marking Code: FD
- Mounting position: Any



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 <sub>PP</sub>                   | 200         | Watts       |
| Breakdown voltage @ IT = 10mA   | V <sub>BR</sub>                   | 5.2-6.0     | Volts       |
| Working PeakReverse Voltage   | V <sub>RWM</sub>                  | 3.3         | Volts       |
| Maximum Reverse Leakage @ V <sub>RWM</sub>                            | I <sub>R</sub>                    | 600         | $\mu$ Amps. |
| Peak pulse current with a 10/1000 $\mu$ s waveform <sup>(1)</sup>     | I <sub>PP</sub>                   | 25.0        | Amps.       |
| Maximum Clamping Voltage @ I <sub>PP</sub>                            | V <sub>c</sub>                    | 8.0         | Volts       |
| Power dissipation on infinite heatsink at $T_L = 75^\circ\text{C}$    | P <sub>D</sub>                    | 0.4         | Watts       |
| Peak forward surge current, 8.3 ms single half sine                   | I <sub>FSM</sub>                  | 20          | Amps.       |
| Maximum instantaneous forward voltage at 25 A                         | V <sub>F</sub>                    | 3.5         | Volts       |
| 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.3 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)

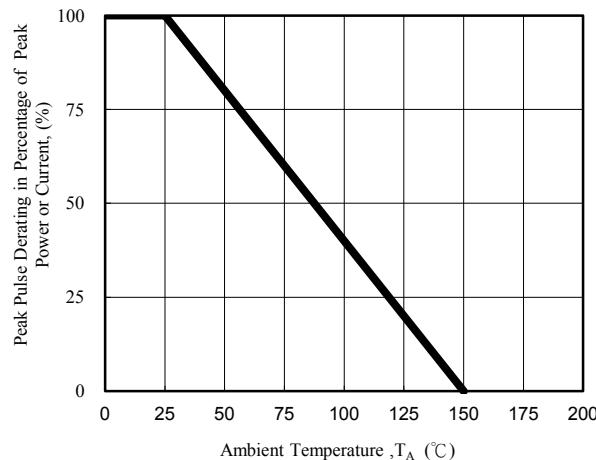


Fig. 1 - Pulse Derating Curve

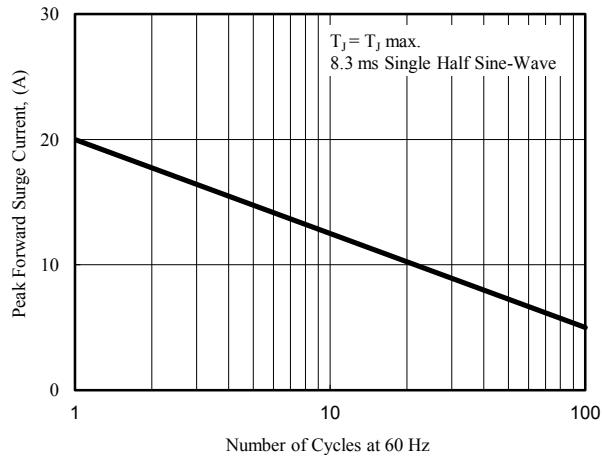


Fig. 2 - Maximum Non-Repetitive Surge Current

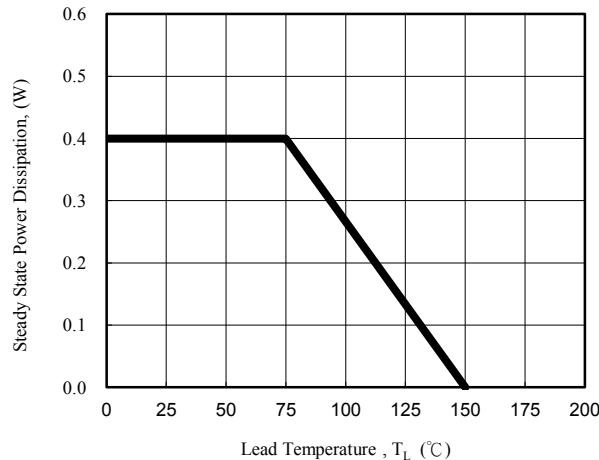


Fig. 3 - Steady State Power Derating Curve

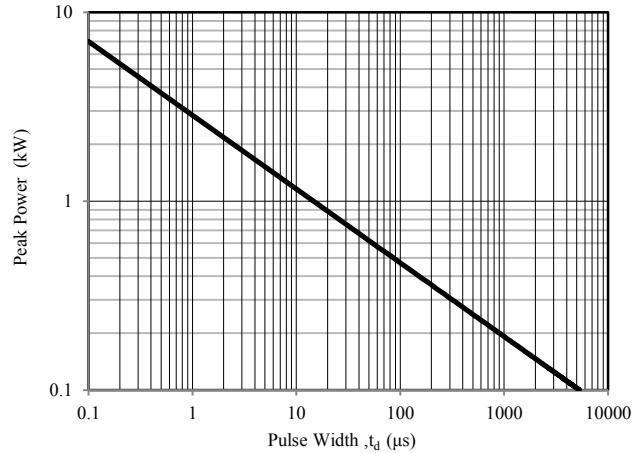


Fig. 4 - Steady State Power Derating Curve

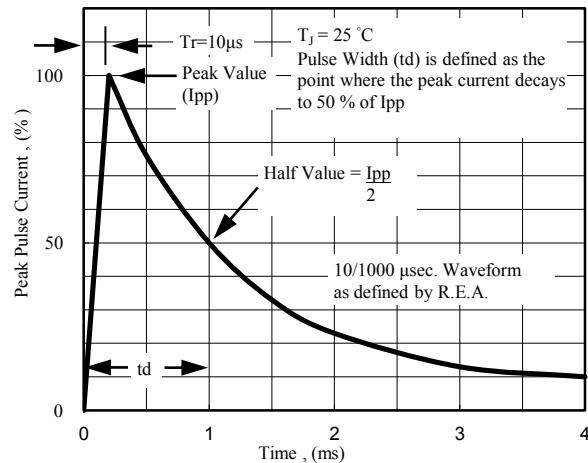


Fig. 5 - Pulse Waveform