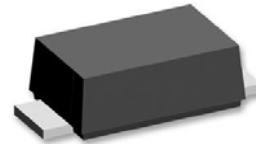


200Watts Transient Voltage Suppressor SMF3.3A

Features

- Glass passivated chip
- 200 W peak pulse power capability with a 10/1000 us waveform, repetitive rate (duty cycle):0.01 %
- Excellent clamping capability
- Low reverse leakage
- Very fast response time
- Lead and body according with RoHS standard



**SMF
SOD-123FL**



Mechanical Characteristics

- JEDEC SOD-123FL package
- Molding compound flammability rating: UL 94V-0
- Marking: Marking Code
- Packaging: Tape and Reel per EIA 481

Applications

- I/O Interfaces
- Power lines
- Automotive and Telecommunication
- Computers & Consumer Electronics
- Industrial Electronics

Maximum Ratings & Thermal Characteristics

(Ratings at 25 °C ambient temperature unless otherwise specified.)

| Parameter | Symbol | Value | Units |
|---|-----------------------------------|-------------|-------|
| Peak power dissipation with a 10/1000 us waveform ⁽¹⁾ | P _{PPM} | 200 | W |
| Peak pulse current with a 10/1000 us waveform ⁽¹⁾ | I _{PPM} | 25 | A |
| Power dissipation on infinite heatsink at T _L = 75 °C | P _D | 1.0 | W |
| Peak forward surge current, 8.3 ms single half sine wave unidirectional only ⁽²⁾ | I _{FSM} | 20 | A |
| Maximum instantaneous forward voltage at 10 A for unidirectional only ⁽³⁾ | V _F | 3.5 | V |
| Operating junction and storage temperature range | T _J , T _{STG} | -55 to +150 | °C |

1) Non-repetitive current pulse per Fig.5 and derated above T_A = 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 ;

Electrical Characteristics

| Part Number | Device Marking Code | Reverse Stand-off Voltage | Breakdown Voltage V _{BR} @ I _T | | Test Current | Max. Clamping Voltage @ I _{PP} | Max. Peak Pulse Current | Max. Reverse Leakage @ V _{RWM} |
|-------------|---------------------|---------------------------|--|---------|---------------------|---|-------------------------|---|
| | | | Min.(V) | Max.(V) | | | | |
| UNI-POLAR | UNI | V _{RWM} (V) | Min.(V) | Max.(V) | I _T (mA) | V _C MAX.(V) | I _{PP} (A) | I _R (uA) |
| SMF3.3A | 3V3 | 3.30 | 5.2 | 6.0 | 10 | 8.0 | 25 | 800 |

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

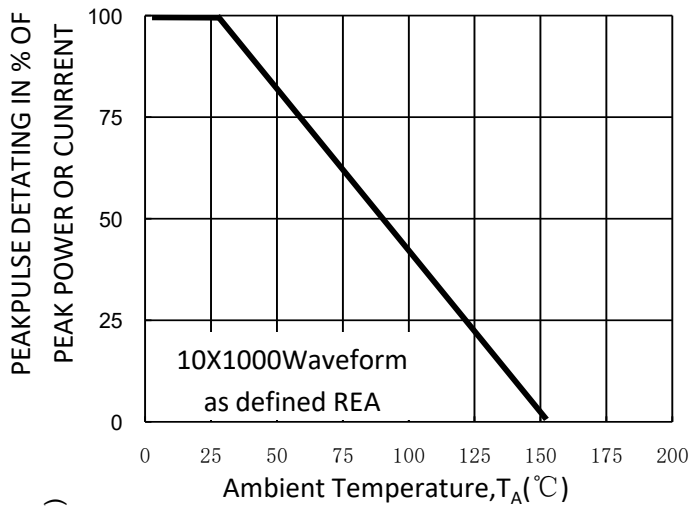


Fig. 1-Pulse Derating Curve

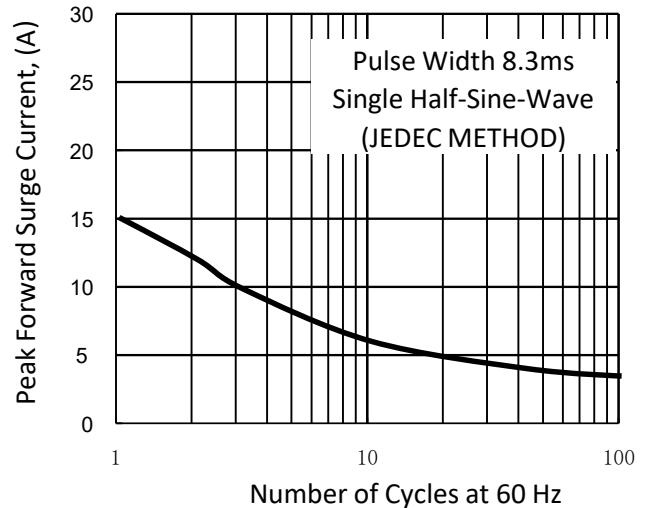


Fig. 2-Maximum Non-Repetitive Surge Current

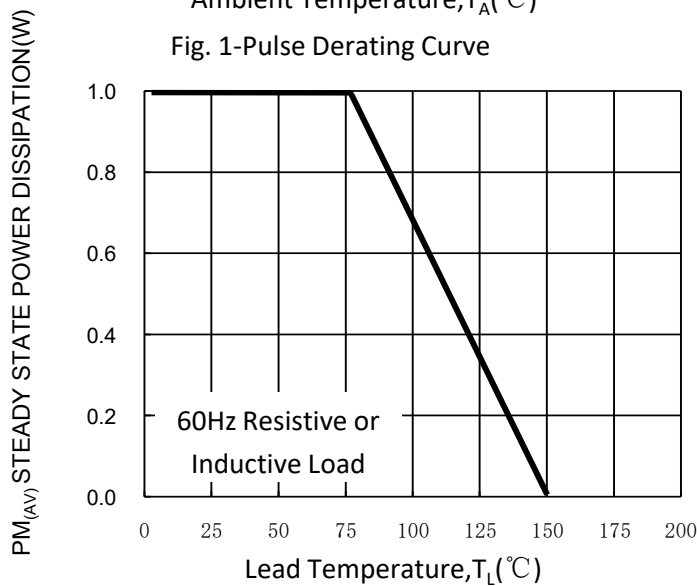


Fig. 3-Steady State Power Derating Curve

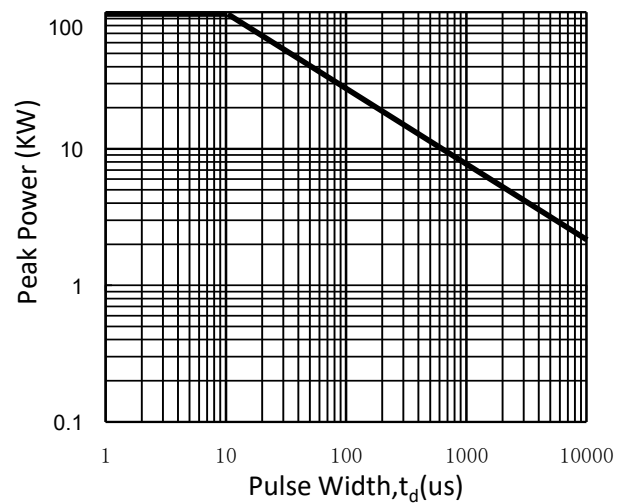


Fig. 4-Peak Pulse Power Rating Curve

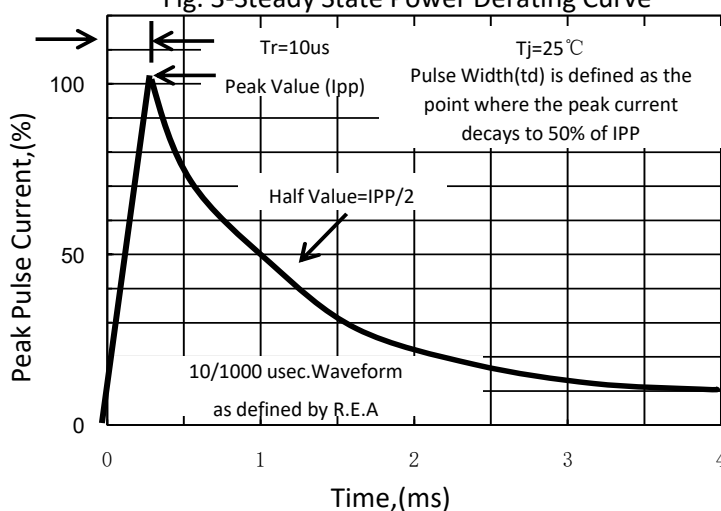


Fig. 5-Pulse Waveform

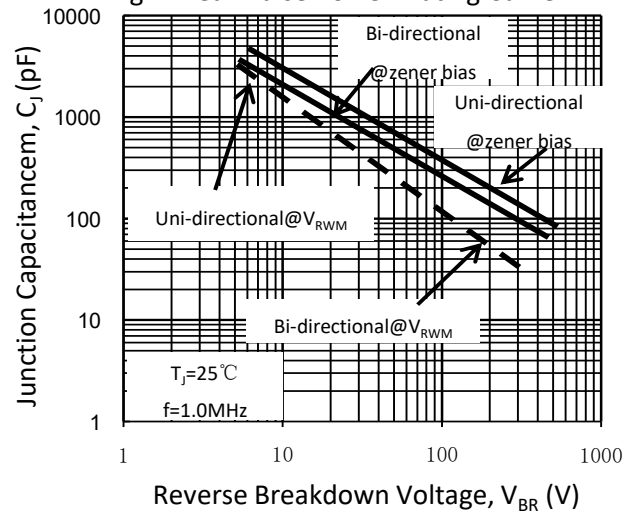
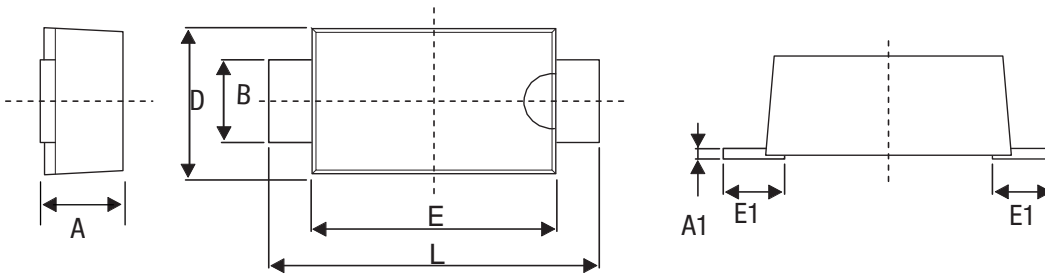


Fig. 6-Typical Junction Capacitance

Dimensions (Unit: mm)



| A | | A1 | | B | | E | | E1 | | D | | L | |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. |
| 1.200 | 1.400 | 0.150 | 0.250 | 0.800 | 1.100 | 2.700 | 2.900 | 0.350 | 0.850 | 1.750 | 1.950 | 3.500 | 3.900 |

Packaging: 3,000/Tape & Reel

Part Marking System

