

## 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	Symbols	Value	Unit
Peak power dissipation with a 10/1000 us waveform <sup>(1)</sup>	$P_{PP}$	200	W
Peak pulse current with a 10/1000 us waveform <sup>(1)</sup>	$I_{PP}$	13.6	A
Power dissipation on infinite heatsink at $T_L = 75\text{ °C}$	$P_D$	1.0	W
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  $T_A = 25\text{ °C}$  per Fig.1 ;

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

## 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)				
BI -POLAR	BI	$V_{RWM}(V)$	Min.(V)	Max.(V)	$I_T(mA)$	$V_C\text{ MAX.}(V)$	$I_{PP}(A)$	$I_R(\mu A)$
SMF3.3CA	3V3C	3.30	4.60	5.60	100	7.3	13.6	2000

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

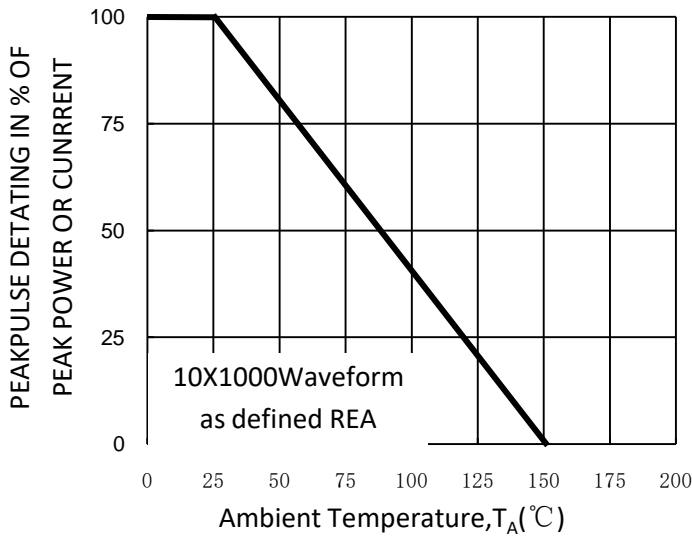


Fig. 1-Pulse Derating Curve

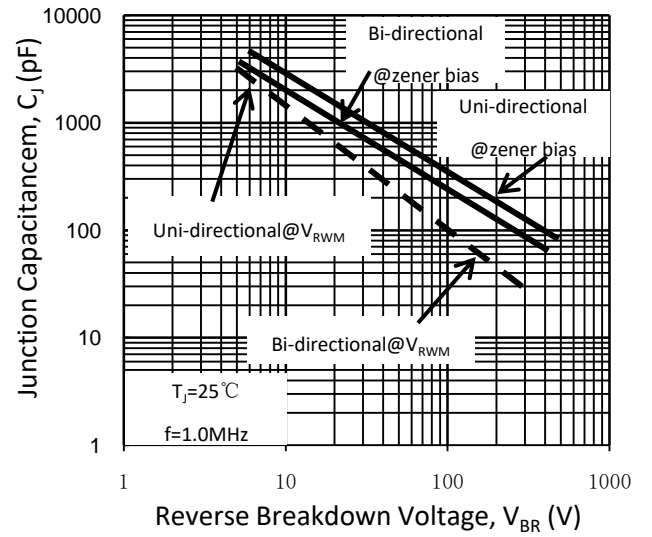


Fig. 2-Typical Junction Capacitance

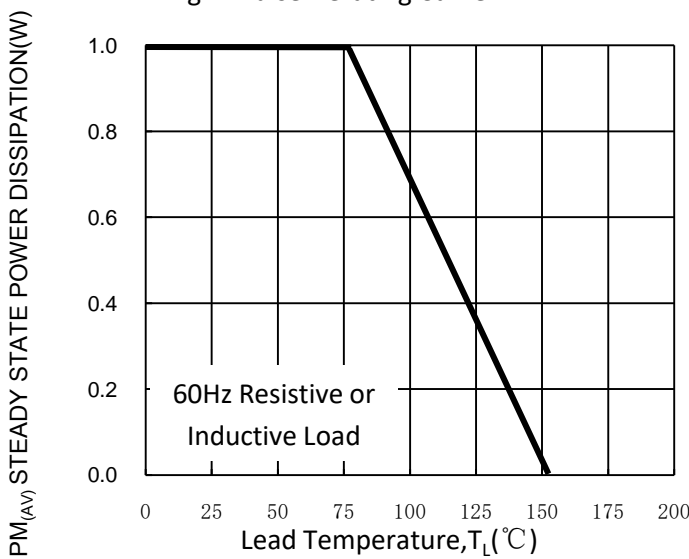


Fig. 3-Steady State Power Derating Curve

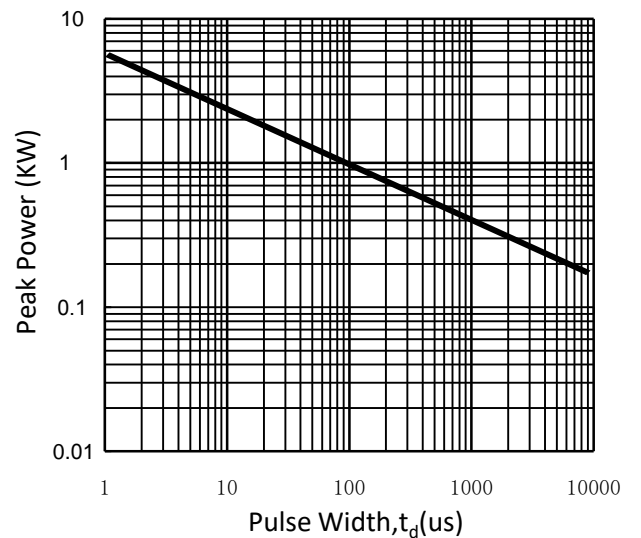


Fig. 4-Peak Pulse Power Rating Curve

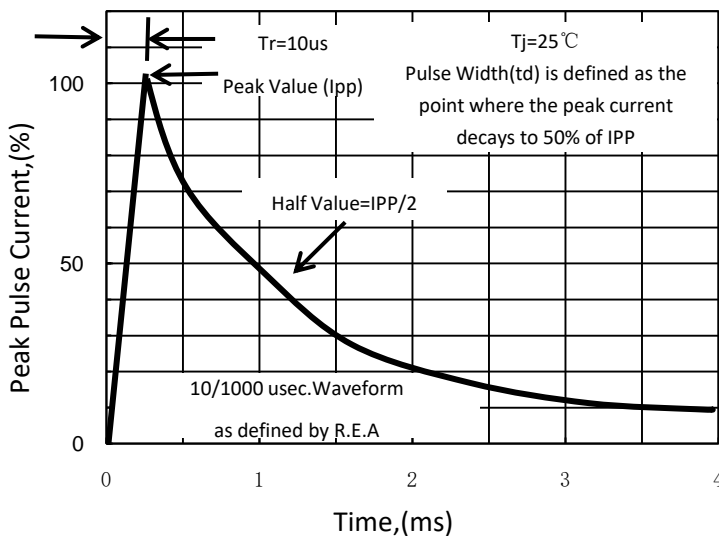
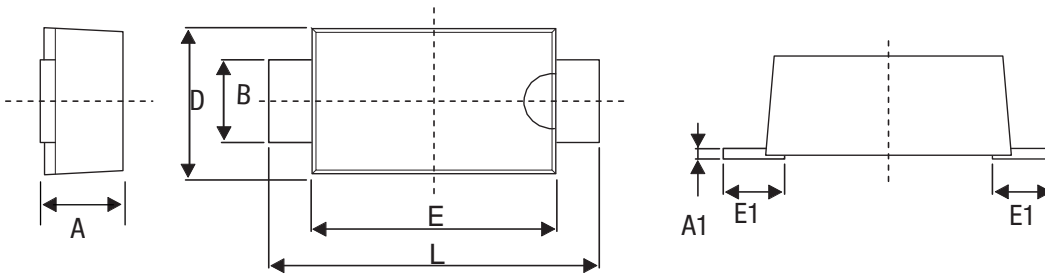


Fig. 5-Pulse Waveform

**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

**Package Information**

Qty: 3,000/Tape and reel

**Part Marking System**

