

## 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

## Mechanical Data

- Case: SOD123FL Molded plastic
- Lead: Solderable per MIL-STD-750, method 2026
- Epoxy: UL 94V-0 rate flame retardant
- Polarity: Color band denotes cathode end except Bipolar
- Mounting position: Any

Maximum Ratings & 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>	$I_{PP}$	27.5	A
Power dissipation on infinite heatsink at $T_L = 75\text{ }^\circ\text{C}$	$P_D$	1.0	W
Peak forward surge current, 8.3 ms single half sinewave unidirectional only <sup>(2)</sup>	$I_{FSM}$	30	A
Maximum instantaneous forward voltage at 10 A for unidirectional only	$V_F$	3.5	V
Operating junction and storage temperature range	$T_J, T_{STG}$	-55 to +150	°C

Note:

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

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

## Electrical Specification @ Tamb 25°C

Part Number		Reverse Stand-off Voltage	Breakdown Voltage $V_{BR} @ I_T$		Test Current	Max. Clamping Voltage @ $I_{PP}$	Max. Peak Pulse Current	Max. Reverse Leakage @ $V_{RWM}$
UNI-POLAR	BI-POLAR	$V_{RWM}(V)$	Min.(V)	Max.(V)	$I_T(mA)$	$V_{C MAX.}(V)$	$I_{PP}(A)$	$I_R(\mu A)$
SMF3.3A	SMF3.3CA	3.30	4.10	5.10	10	7.3	27.5	500

## Ratings and Characteristics Curves (TA=25°C unless otherwise noted)

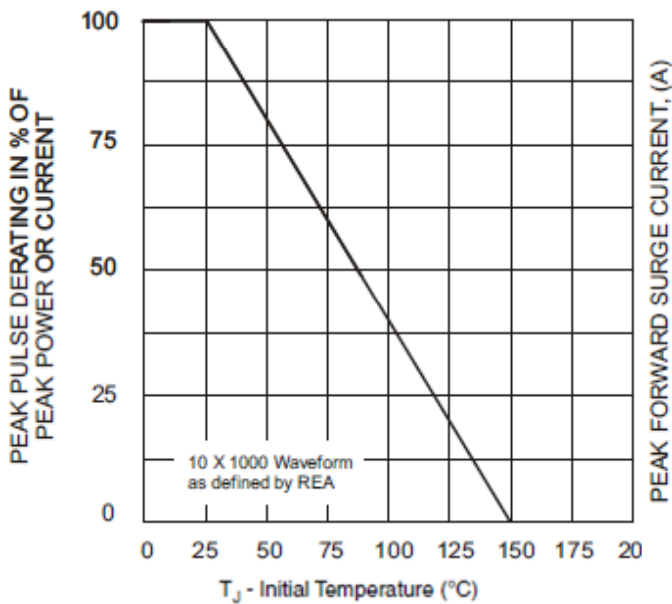


Fig. 1 - Pulse Derating Curve

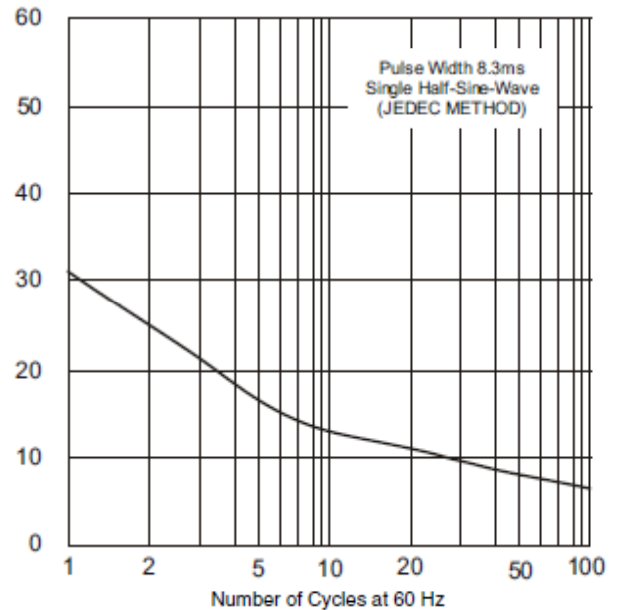


Fig. 2 - Maximum Non-Repetitive Surge Current

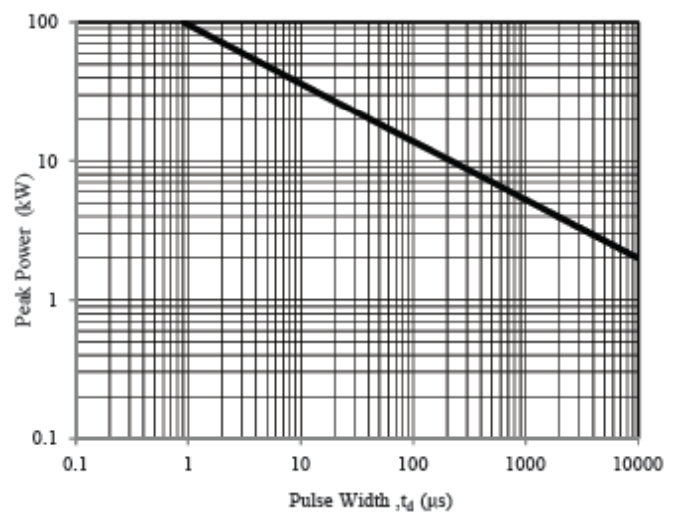
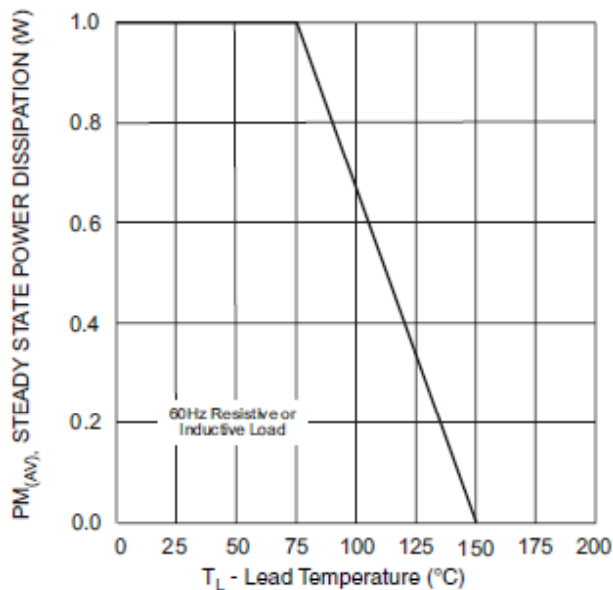


Fig. 3 - Steady State Power Derating Curve

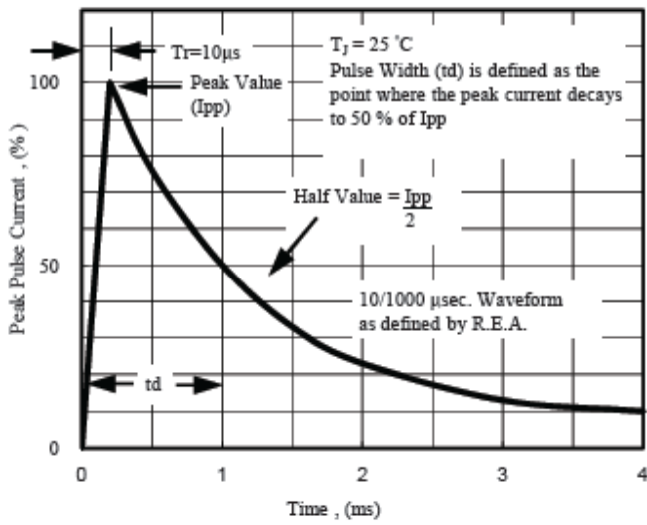


Fig. 5 - Pulse Waveform

Fig. 4 - Peak Pulse Power Rating Curve

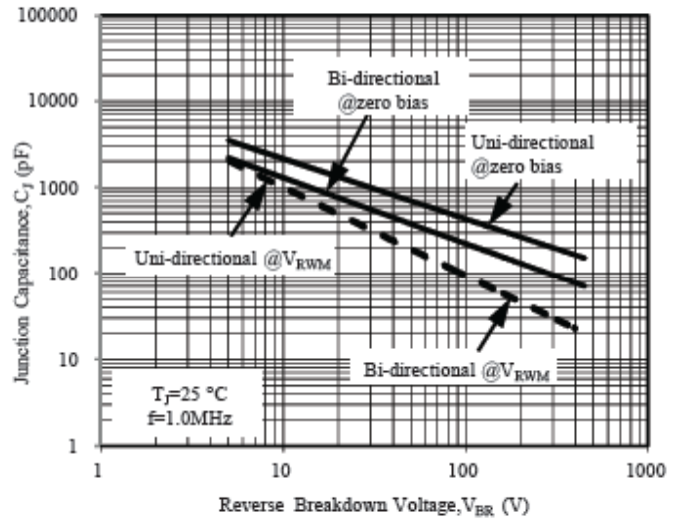


Fig. 6 - Typical Junction Capacitance

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