TDSEMIC
拓電半導體

自主封測 品質把控 售後保障

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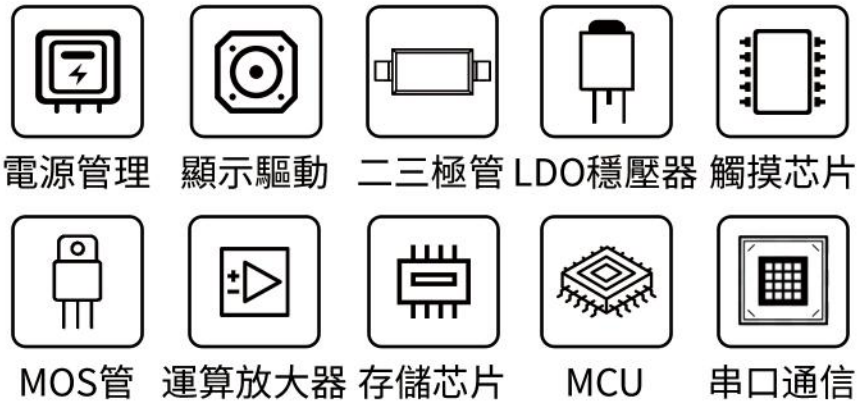


SMF3.3A

產品規格說明書

SMF3.3A

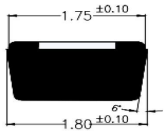
■ Features

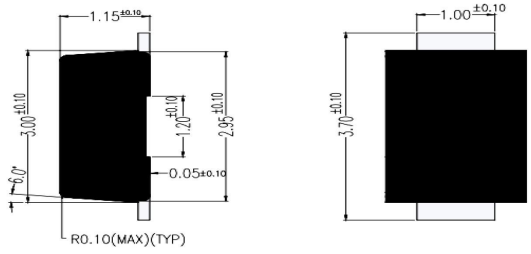
- Glass passivated chip
- 200W peak pulse power capability with a 10/1000 μs waveform, repetitive rate (duty cycle):0.01%
- Low leakage
- Uni and Bidirectional unit
- Excellent clamping capability
- Very fast response time

■ 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
- Moisture Sensitivity: Level 1 per J-STD-020
- RoHS Compliant
- Whisker test is conducted based on JEDEC JESD201A per its table 4a and 4c
- IEC-61000-4-2 ESD 30kV(Air), 30kV (Contact)
- ESD protection of data lines in accordance with IEC 61000-4-2
- EFT protection of data lines in accordance with IEC 61000-4-4

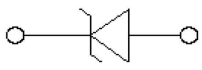
SOD-123FL



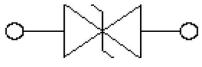


Dimensions: inch[mm]

Uni-directional



Bi-directional



■ Absolute Maximum Ratings (T_A=25℃ unless otherwise noted)

Parameter	Symbol	Value	Unit
Peak power dissipation with a 10/1000μs waveform(1)	P_{PP}	200	W
Peak pulse current with a 10/1000μs waveform(1)	I_{PP}	See Next Table	A
Power dissipation on infinite heatsink at TL = 75 °C	P_D	0.4	W
Peak forward surge current, 8.3 ms single half sine-wave unidirectional only(2)	I_{FSM}	20	A
Maximum instantaneous forward voltage at 25 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 °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 (T_A = 25°C unless otherwise noted)

Part Number (Uni)	Part Number (Bi)	Device Marking Code		Breakdown Voltage VBR @IT			Maximum Reverse Leakage IR @VRWM (uA)	Working Peak Reverse Voltage VRWM (V)	Maximum Reverse Surge Current IPP (A)	Maximum Clamping Voltage VC @IPP (V)
		Uni	Bi	Min (V)	Max (V)	IT (mA)				
SMF3.3A	SMF3.3CA	FD	KD	5.2	6.5	10	500	3.3	22.7	8.8

■ Ratings and Characteristics Curves （T_A = 25°C unless otherwise noted）

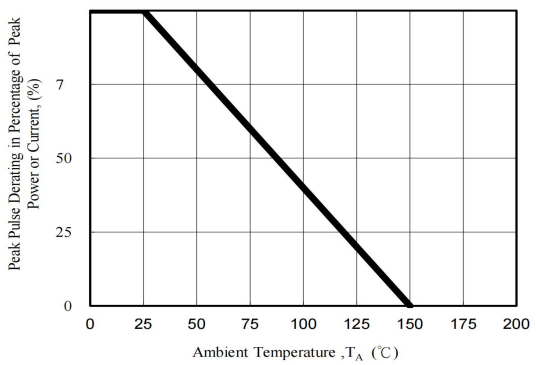


Fig. 1 - Pulse Derating Curve

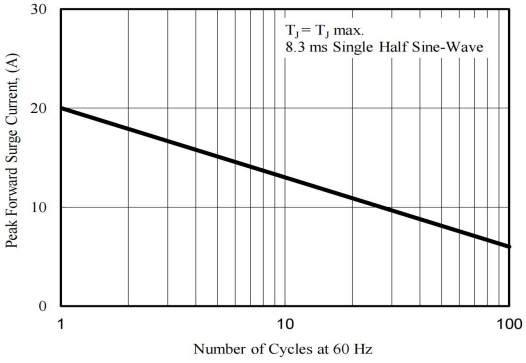


Fig. 2 - Maximum Non-Repetitive Surge Current

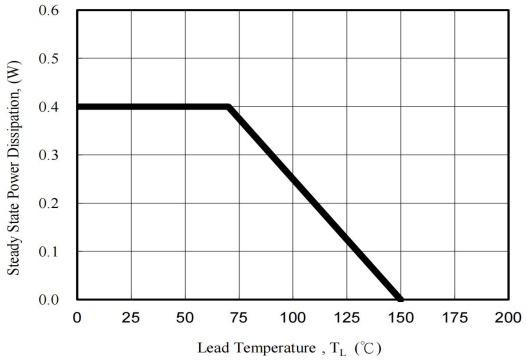


Fig. 3 - Steady State Power Derating Curve

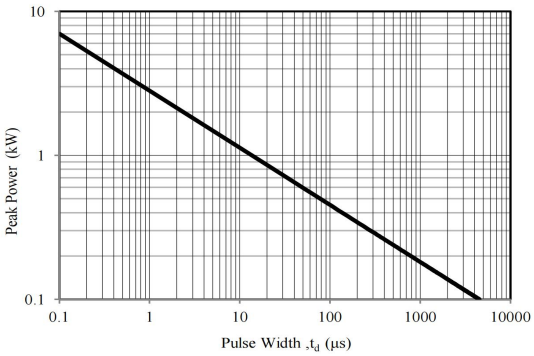


Fig. 4 - Peak Pulse Power Rating Curve

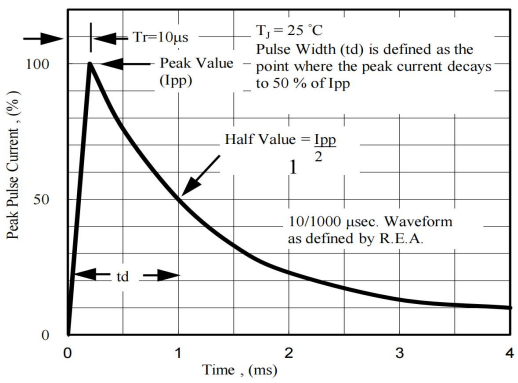


Fig. 5 - Pulse Waveform

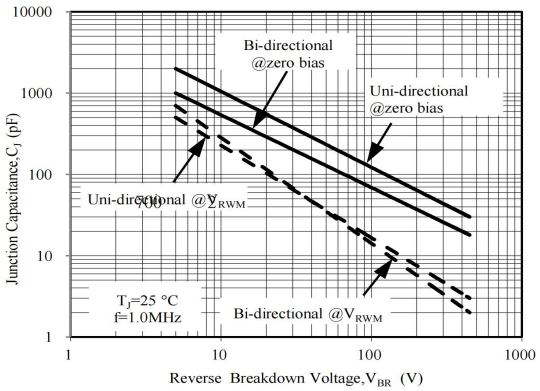


Fig. 6 - Typical Junction Capacitance