

Surface mount transient voltage suppressor power 200 watts

Stand-Off Voltage: 3.3V

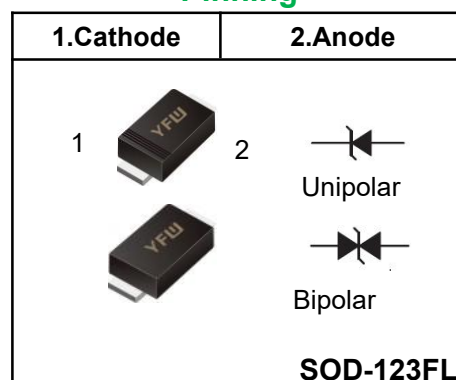
FEATURES

- ◆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: SOD-123FL
- ◆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
- ◆Approx. Weight: 15mg / 0.00048oz

Pinning



Maximum Ratings and Electrical characteristics

Ratings at 25 ambient temperature unless o °C therwise specified.

Parameter	Symbol	Value	Unit
Peak power dissipation with a 10/1000 us waveform(1)	P_{PP}	200	W
Peak pulse current with a 10/1000 us waveform(1)	I_{PP}	See Next Table	A
Power dissipation on infinite heatsink at TL = 75 °C	P_D	1.0	W
Peak forward surge current, 8.3 ms single half sinewave unidirectional only(2)	I_{FSM}	30	A
Maximum instantaneous forward voltage at 10 A for unidirectional only(3)	V_F	3.5/6.5	V
Operating junction and storage temperature range	T_J, T_{STG}	-50 to +150	°C

NOTES

- 1.Non-repetitive current pulse per Fig.5 and derated above TA= 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;
- 3.VF<3.5V for devices of VBR<200V and VF<6.5V for devices of VBR>201V。

Part Number		Device Marking Code		Reverse Stand-off Voltage	Breakdown Voltage VBR @ IT		Test Current	Max. Clamping Voltage @ IPP	Max. Peak Pulse Current	Max. Reverse Leakage @ VRWM
UNI-POLAR	BI-POLAR	UNI	BI	VRWM (V)	Min. (V)	Max. (V)	IT (mA)	VC MAX. (V)	IPP (A)	IR (uA)
SMF3.3A	SMF3.3CA	HZ	GZ	3.3	4.30	5.30	10	7.3	27.40	800

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

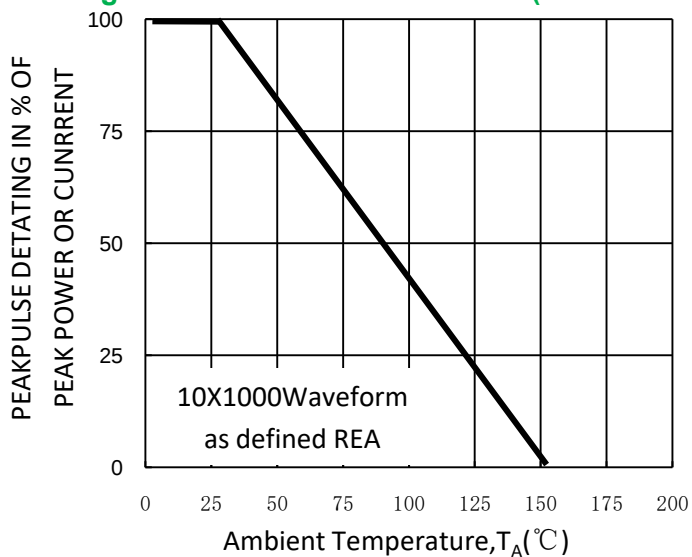


Fig. 1-Pulse Derating Curve

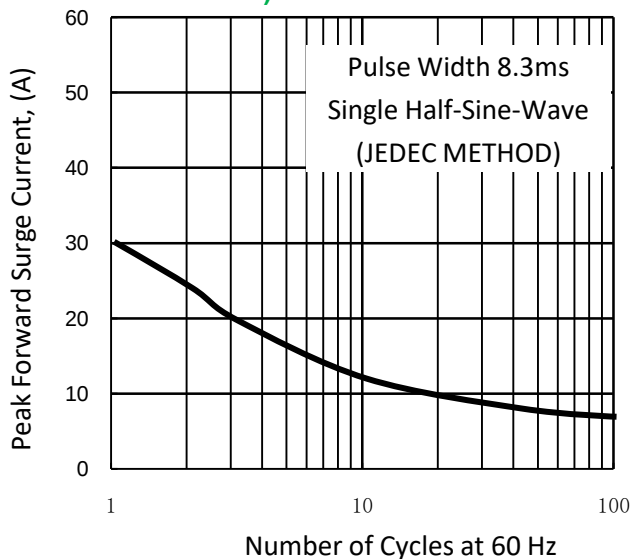


Fig. 2-Maximum Non-Repetitive Surge Current

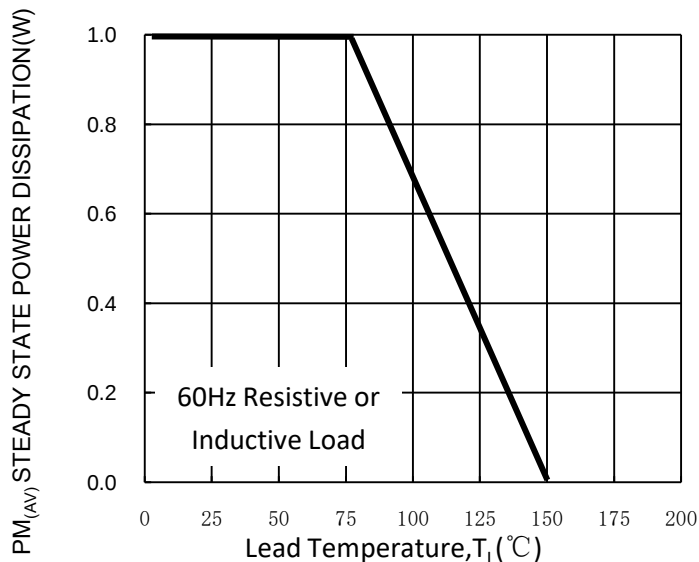


Fig. 3-Steady State Power Derating Curve

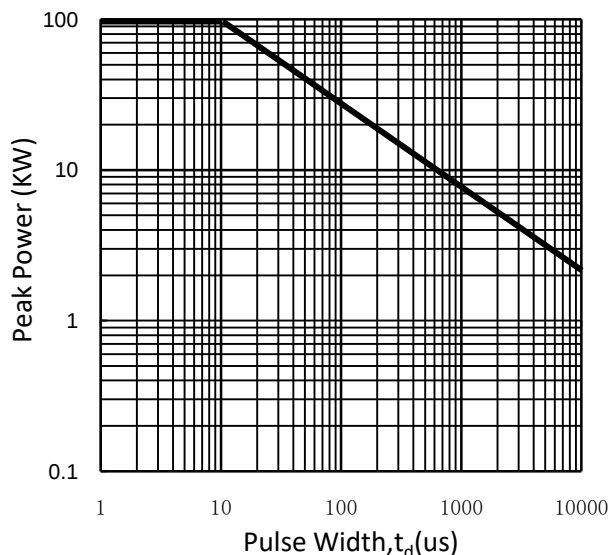


Fig. 4-Peak Pulse Power Rating Curve

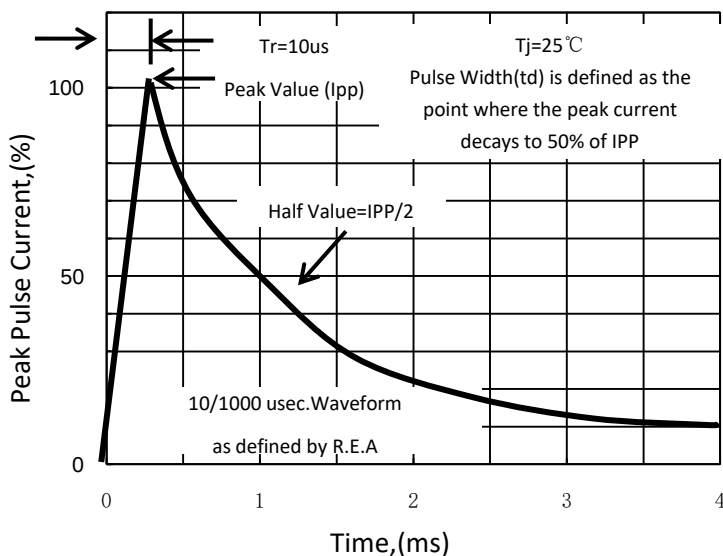


Fig. 5-Pulse Waveform

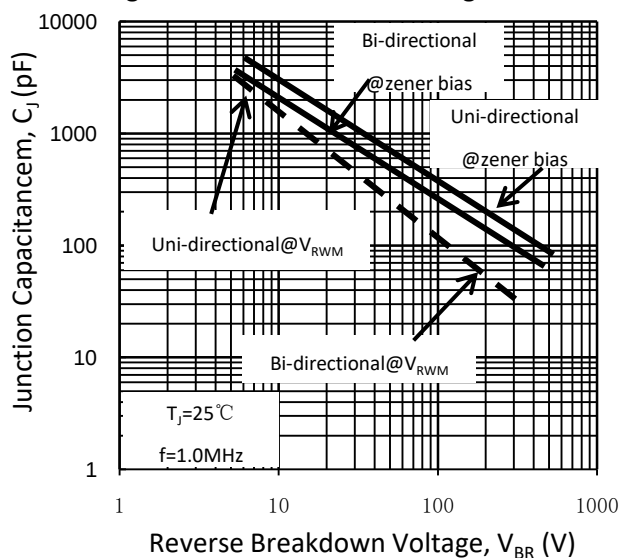
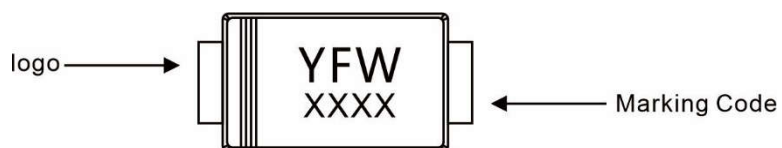


Fig. 6-Typical Junction Capacitance

Marking Diagram



Ordering information

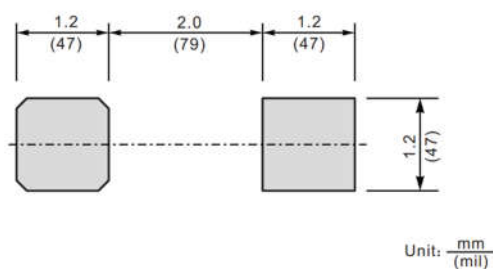
Package	Packing Description	Packing Quantity
SOD-123FL	Tape/Reel, 7" reel	3000PCS/Reel 120000PCS/Carton

Package Dimensions

SOD-123FL

Dim.	Millimeter(mm)		mil	
	Min.	Max.	Min.	Max.
A	0.9	1.3	35	43
C	0.12	0.20	4.7	7.9
D	2.6	2.9	102	114
E	1.7	1.9	67	75
e	0.8	1.1	31	43
g	0.7	0.9	28	35
HE	3.5	3.8	138	150
∠	7°			

The recommended mounting pad size



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