

Working Voltage: 13 to 58 V
Peak Pulse Power: 200 W

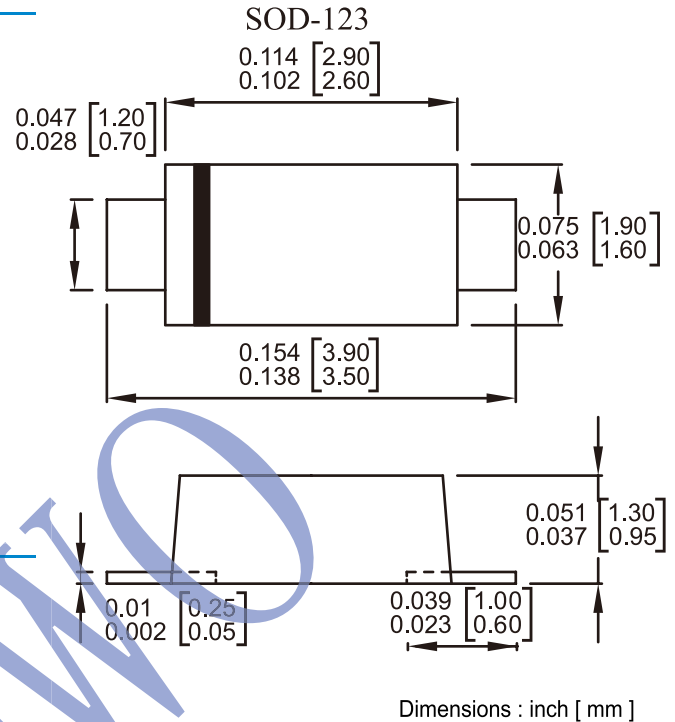
Surface Mount Transient Voltage Suppressors

Features

- Glass passivated chip
- 200 W peak pulse power capability with a 10/1000 μ s waveform, repetitive rate (duty cycle):0.01 %
- Low leakage
- Uni-directional unit
- High reliability application and automotive grade AEC Q101 qualified
- Excellent clamping capability
- Very fast response time
- RoHS compliant

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
- Mounting position: Any



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

Parameter	Symbol	Value	Unit
Peak power dissipation with a 10/1000 μ s waveform ⁽¹⁾	P_{PP}	200	W
Peak pulse current with a 10/1000 μ s waveform ⁽¹⁾	I_{PP}	See Next Table	A
Power dissipation on infinite heatsink at $T_L = 75^\circ\text{C}$	P_D	0.4	W
Maximum instantaneous forward voltage at 25 A	V_F	3.5	V
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150	$^\circ\text{C}$

Note:

(1)Non-repetitive current pulse per Fig.3 and derated above $T_A = 25^\circ\text{C}$ per Fig.1.

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

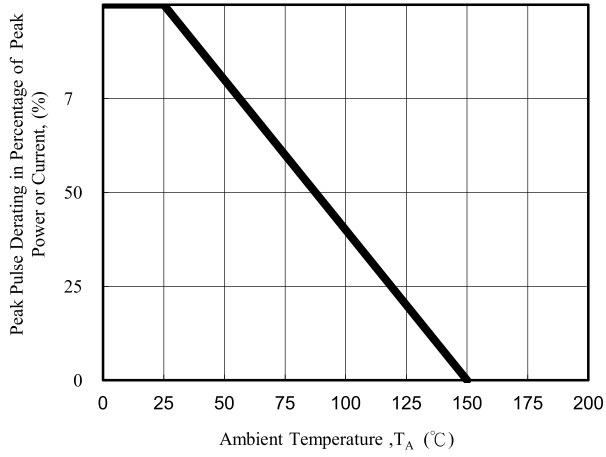


Fig. 1 - Pulse Derating Curve

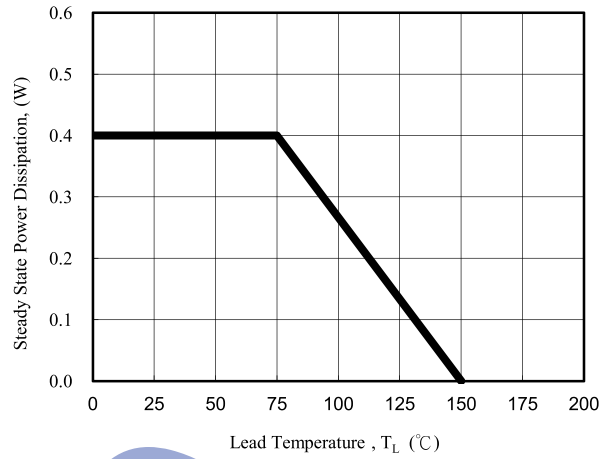


Fig. 2- Steady State Power Derating Curve

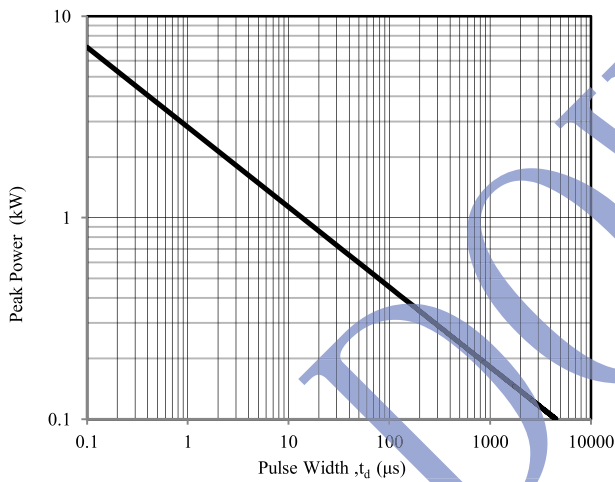


Fig. 3 - Peak Pulse Power Rating Curve

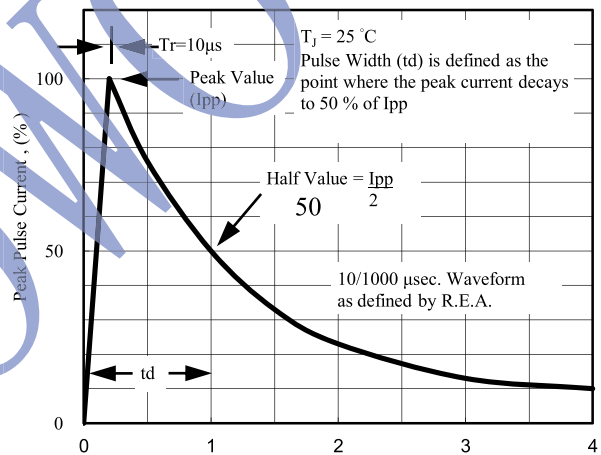


Fig. 4 - Pulse Waveform

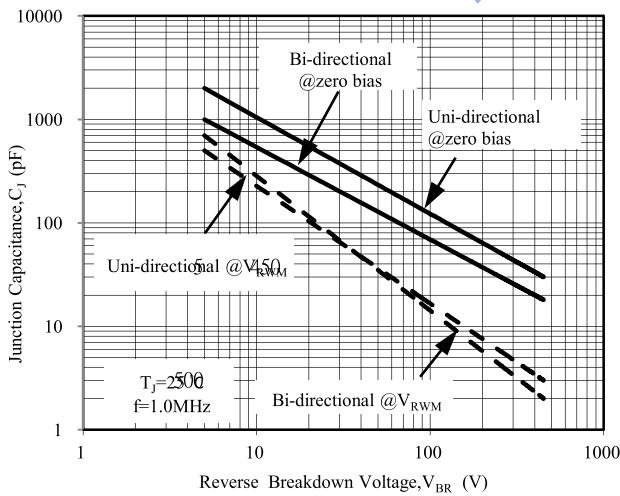


Fig. 5 - Typical Junction Capacitance

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

Part Number (Uni)	Device Marking Code	Breakdown Voltage V_{BR} @ I_T			Maximum Reverse Leakage I_R @ V_{RWM} (μA)	Working Peak Reverse Voltage V_{RWM} (V)	Maximum Reverse Surge Current I_{PP} (A)	Maximum Clamping Voltage V_C @ I_{PP} (V)
		Min (V)	Max (V)	I_T (mA)				
TPSMF13A	HGA	14.40	15.90	1	1	13.0	9.30	21.5
TPSMF14A	HKA	15.60	17.20	1	1	14.0	8.62	23.2
TPSMF15A	HMA	16.70	18.50	1	1	15.0	8.20	24.4
TPSMF16A	HPA	17.80	19.70	1	1	16.0	7.69	26.0
TPSMF17A	HRA	18.90	20.90	1	1	17.0	7.25	27.6
TPSMF18A	HTA	20.00	22.10	1	1	18.0	6.85	29.2
TPSMF19A	HBA	21.10	23.30	1	1	19.0	6.54	30.6
TPSMF20A	HVA	22.20	24.50	1	1	20.0	6.17	32.4
TPSMF22A	HXA	24.40	26.90	1	1	22.0	5.63	35.5
TPSMF24A	HZA	26.70	29.50	1	1	24.0	5.14	38.9
TPSMF26A	JEA	28.90	31.90	1	1	26.0	4.75	42.1
TPSMF28A	JGA	31.10	34.40	1	1	28.0	4.41	45.4
TPSMF30A	JKA	33.30	36.80	1	1	30.0	4.13	48.4
TPSMF33A	JMA	36.70	40.60	1	1	33.0	3.75	53.3
TPSMF36A	JPA	40.00	44.20	1	1	36.0	3.44	58.1
TPSMF40A	JRA	44.40	49.10	1	1	40.0	3.10	64.5
TPSMF43A	JTA	47.80	52.80	1	1	43.0	2.88	69.4
TPSMF45A	JVA	50.00	55.30	1	1	45.0	2.75	72.7
TPSMF48A	JXA	53.30	58.90	1	1	48.0	2.58	77.4
TPSMF51A	JZA	56.70	62.70	1	1	51.0	2.43	82.4
TPSMF54A	XEA	60.00	66.30	1	1	54.0	2.30	87.1
TPSMF58A	XGA	64.40	71.20	1	1	58.0	2.14	93.6

Note:

1. Suffix 'A' denotes 5% tolerance device.