

**Working Voltage: 14 to 58 V**  
**Peak Pulse Power: 200 W**

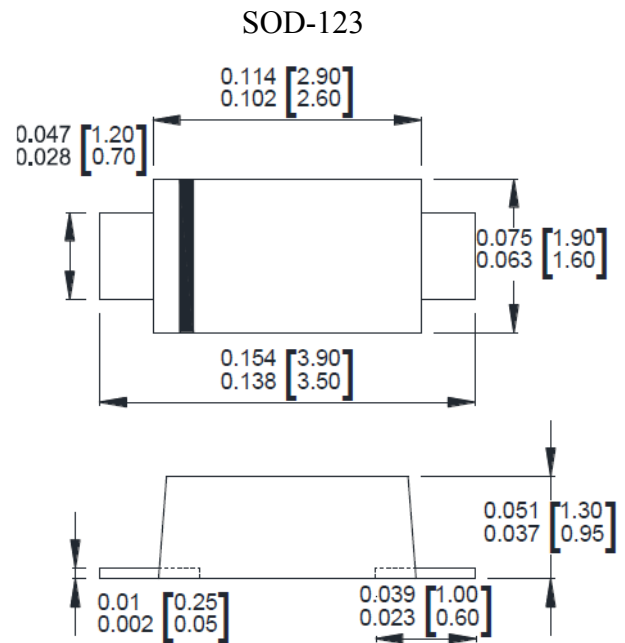
## Surface Mount Transient Voltage Suppressors

### Features

- Glass passivated chip
- 200 W peak pulse power capability with a 10/1000  $\mu$ 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



Dimensions : inch [ mm ]

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

Parameter	Symbol	Value	UNIT
Peak power dissipation with a 10/1000 $\mu$ s waveform <sup>(1)</sup>	$P_{PP}$	200	W
Peak pulse current with a 10/1000 $\mu$ s waveform <sup>(1)</sup>	$I_{PP}$	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.4 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)

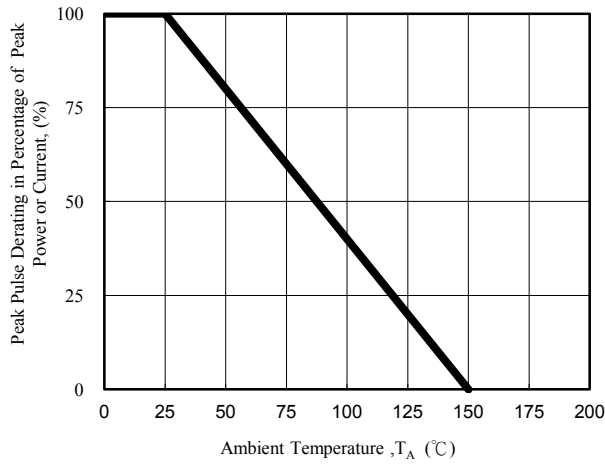


Fig. 1 - Pulse Derating Curve

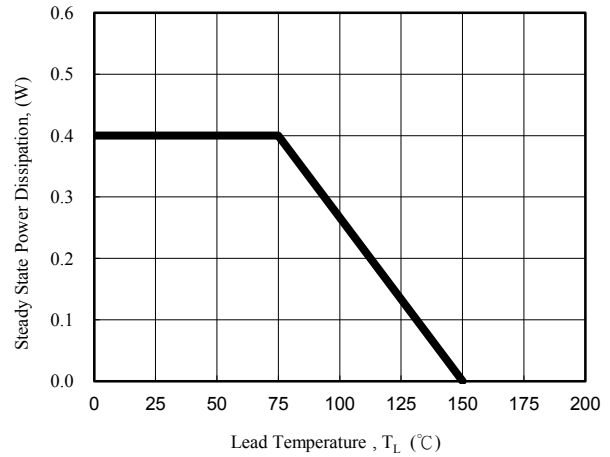


Fig. 2- Steady State Power Derating Curve

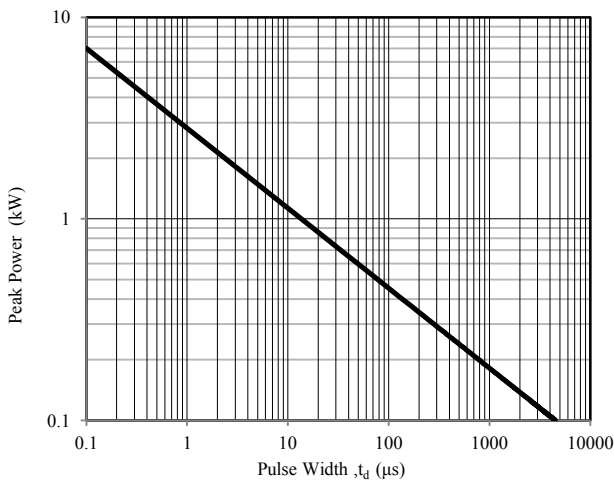


Fig. 3 - Peak Pulse Power Rating Curve

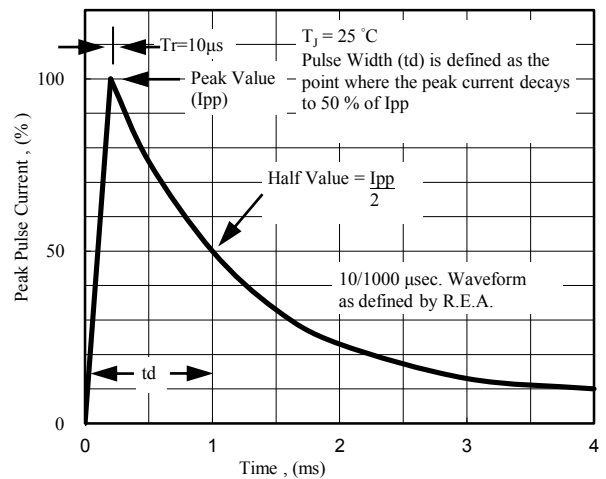


Fig. 4 - Pulse Waveform

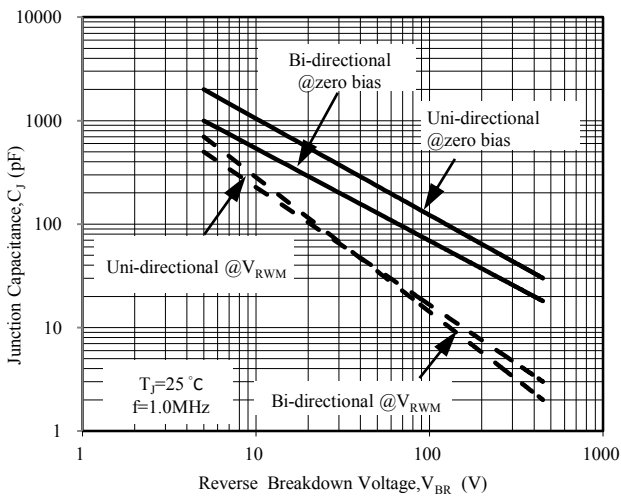


Fig. 5 - Typical Junction Capacitance

**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 $I_R$ @ $V_{RWM}$ ( $\mu\text{A}$ )	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)				
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:**

- Suffix 'A' denotes 5% tolerance device.