



SMH5.0A / SMH14A

SURFACE MOUNT TRANSIENT VOLTAGE SUPPRESSOR POWER 400 Watts

STAND-OFF VOLTAGE

5.0 / 14 Volts

SOD-123HE

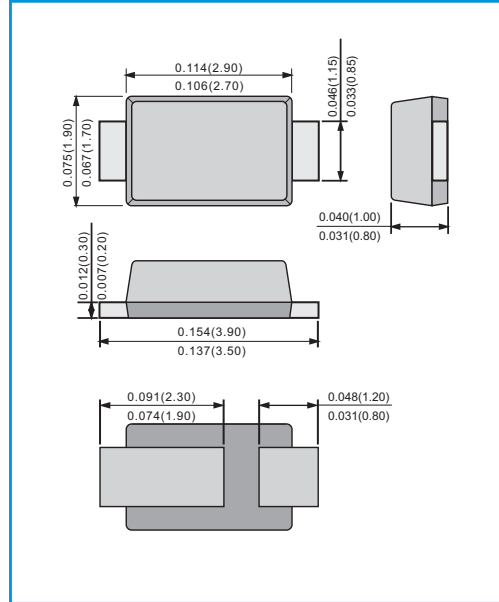
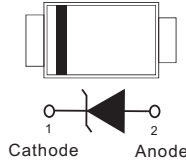
Unit:inch(mm)

FEATURES

- For surface mounted applications in order to optimize board space.
- Low profile package
- Built-in strain relief
- Low inductance
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- In compliance with EU RoHS 2002/95/EC directives

MECHANICAL DATA

- Case: SOD-123HE
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes positive end (cathode)
- Apprx.Weight: 0.0006 ounce, 0.0172 gram



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Rating	Symbol	Value	Units
Peak Pulse Power Dissipation on $T_A = 25^\circ\text{C}$ (Notes 1,2,4, Fig.1)	P_{PPM}	400	Watts
Peak Forward Surge Current per Fig.5 (Note 3)	I_{FSM}	40	Amps
Peak Pulse Current on 10/1000 μs waveform(Note 1)Fig.2	I_{PPM}	see Table 1	Amps
Typical Thermal Resistance Junction to Air (NOTE 2)	$R_{\theta JA}$	107	$^\circ\text{C} / \text{W}$
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-55 to +150	$^\circ\text{C}$

Part Number	Reverse Stand-off Voltage	Breakdown Voltage		Test Current	Reverse Leakage	Max. Clamp Voltage	Peak Pulse Current	Marking Code
	V_{RWM}	$V_{BR} @ I_T$			$I_R @ V_{RWM}$			
		Min.	Max.	I_T	UNI	$V_C @ I_{PP}$	I_{PP}	
	V	V	V	mA	μA	V	A	UNI
400W Transient Voltage Suppressor								
SMH5.0A	5	6.4	7.25	10	800	9.2	43.5	HE
SMH14A	14	15.6	17.9	1	1	23.2	17.2	IK

NOTES:

1. Non-repetitive current pulse, per Fig.3 and derated above $T_A = 25^\circ\text{C}$ per Fig. 2.
2. Mounted on 5.0mm² copper pads to each terminal.
3. 8.3ms single half sine-wave, or equivalent square wave, duty cycle = 4 pulses per minutes maximum.
4. Peak pulse power waveform is 10/1000 μs .



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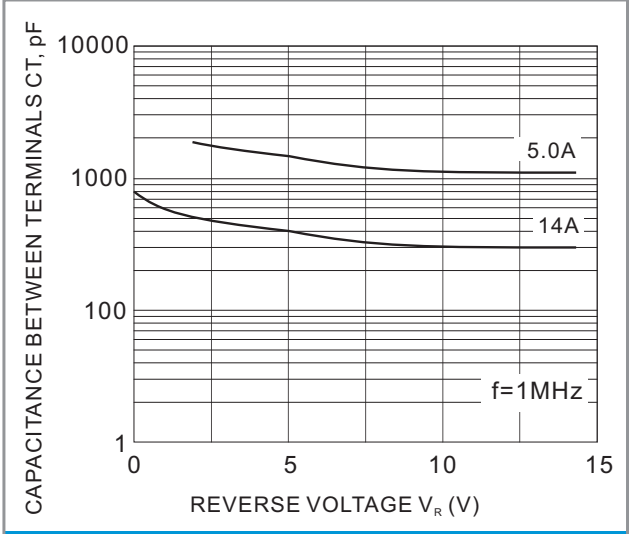


Fig.1 V_R -CR CHARACTERISTICS

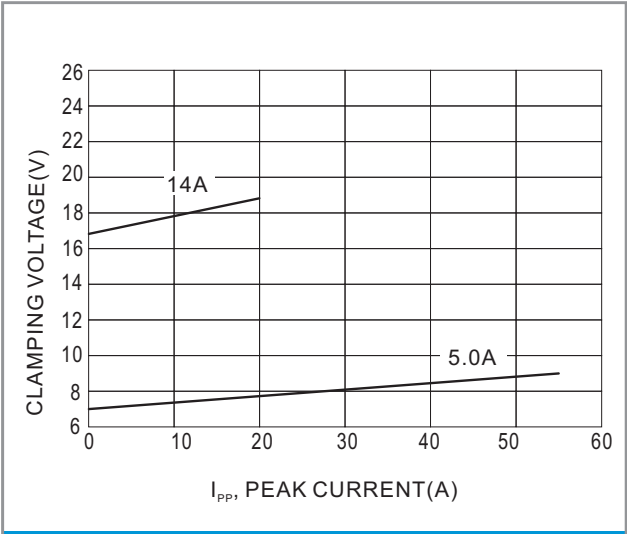


Fig 2. Clamping Voltage vs Peak Pulse Current (10x1000 Waveform)

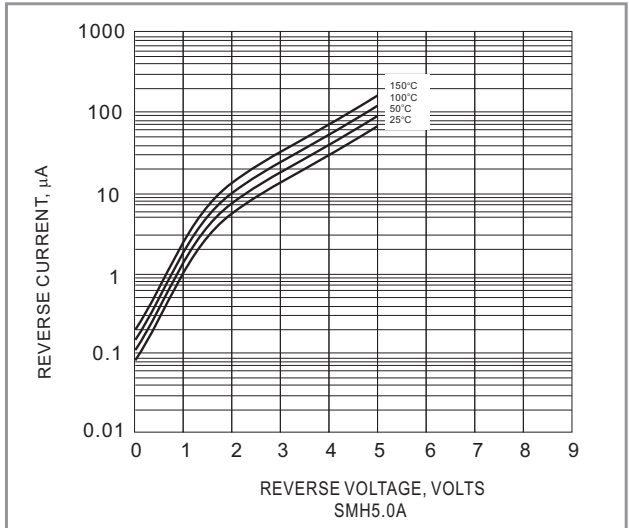


Fig.3 TYPICAL REVERSE CHARACTERISTICS

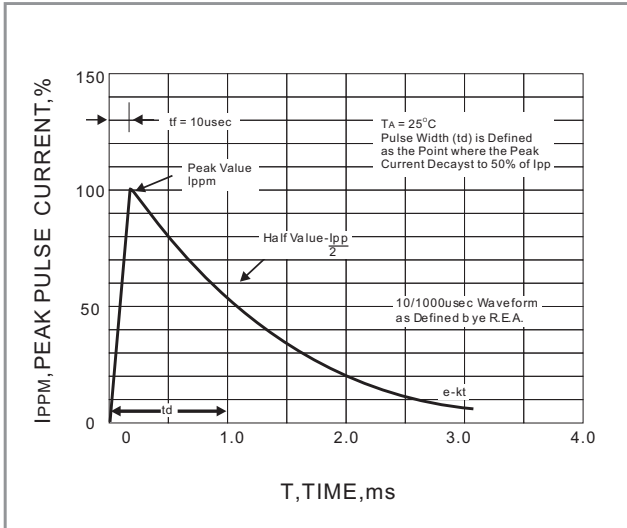


Fig.4 PULSE WAVEFORM

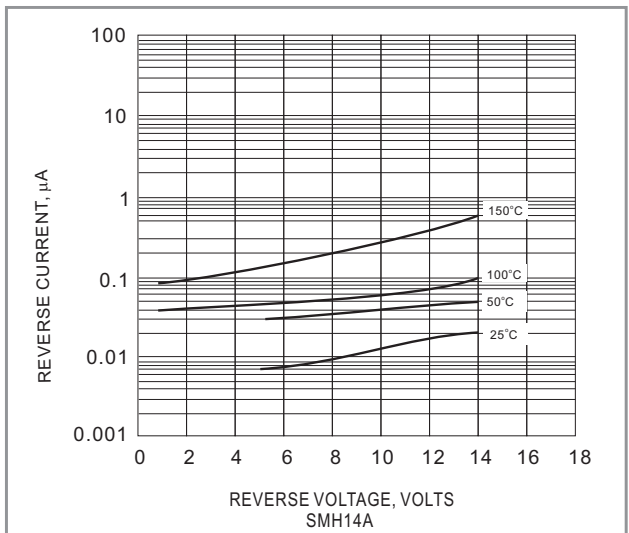
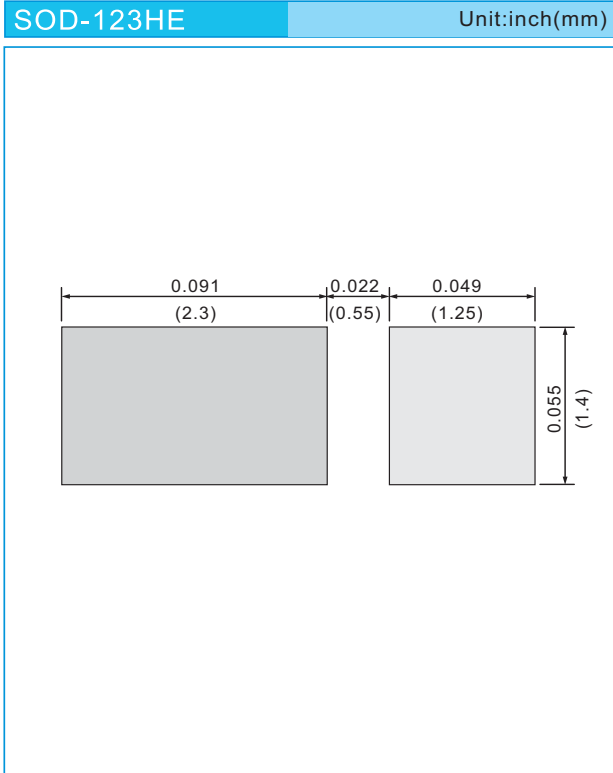


Fig.5 TYPICAL REVERSE CHARACTERISTICS



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MOUNTING PAD LAYOUT



ORDER INFORMATION

- Packing information
 - T/R - 10K per 13" plastic Reel
 - T/R - 3K per 7" plastic Reel

LEGAL STATEMENT

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