

1N4001H THRU 1N4007H-HAF

Surface Mount General Purpose Silicon Rectifiers

Reverse Voltage - 50 to 1000 V

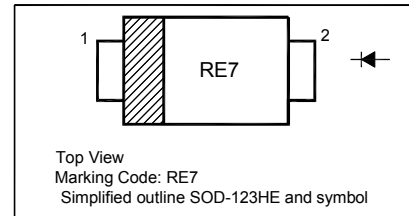
Forward Current - 1 A

Features

- Halogen and Antimony Free(HAF), RoHS compliant

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Maximum Ratings and Electrical characteristics

Ratings at 25°C ambient temperature unless otherwise specified. Single phase half wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

Parameter	Symbols	1N4001H	1N4002H	1N4003H	1N4004H	1N4005H	1N4006H	1N4007H	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current at $T_a = 65^\circ\text{C}$	$I_{F(AV)}$	1							A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	25							A
Maximum Instantaneous Forward Voltage at 1 A	V_F	1.1							V
Maximum DC Reverse Current $T_a = 25^\circ\text{C}$ at Rated DC Blocking Voltage $T_a = 125^\circ\text{C}$	I_R	5 50							μA
Typical Junction Capacitance ¹⁾	C_j	4							pF
Typical Thermal Resistance ²⁾	$R_{\theta JA}$	180							$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_j, T_{stg}	- 55 to + 150							$^\circ\text{C}$

¹⁾ Measured at 1 MHz and applied reverse voltage of 4 V D.C

²⁾ Thermal resistance from junction to ambient at FR-4 Epoxy PCB with copper mounting pad area of 2.2 mm².

TOP DYNAMIC



ISO14001 : 2004 Certificate No. 121505007
 ISO 9001 : 2008 Certificate No. 50114012
 OHSAS 18001 : 2007 Certificate No. 0515150006
 IECQ QC 080000 Certificate No. ECU18001 HAF2

Dated: 13/07/2015 Rev: 02

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FIG.1 – TYPICAL FORWARD CHARACTERISTIC

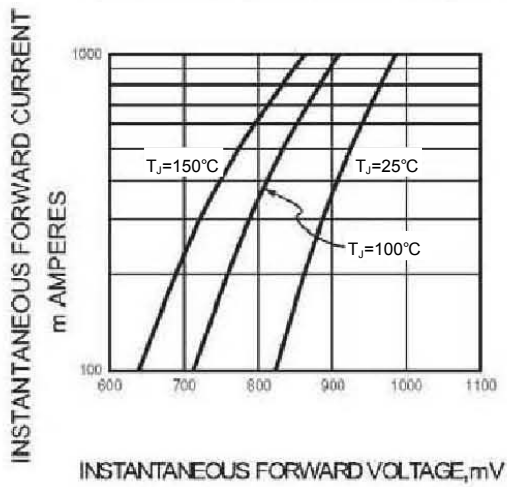


FIG.2 – TYPICAL JUNCTION CAPACITANCE

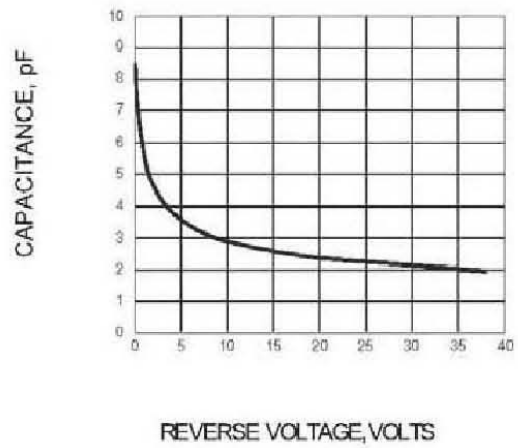


FIG.3 – TYPICAL INSTANTANEOUS REVERSE CHARACTERISTICS

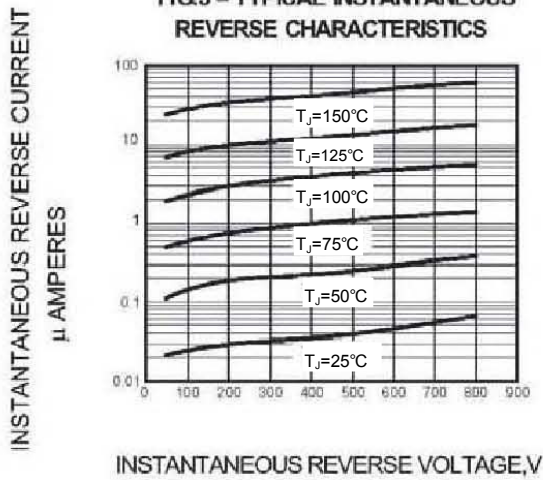
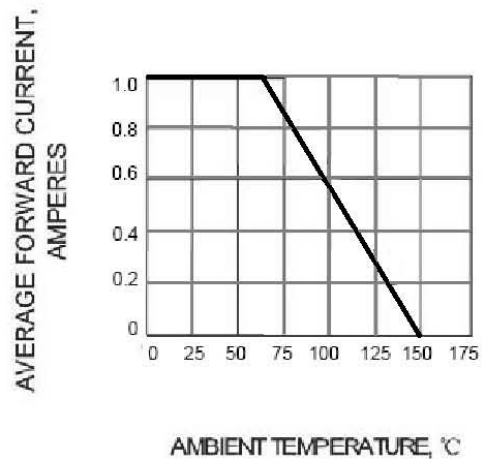


FIG.4 – FORWARD DERATING CURVE



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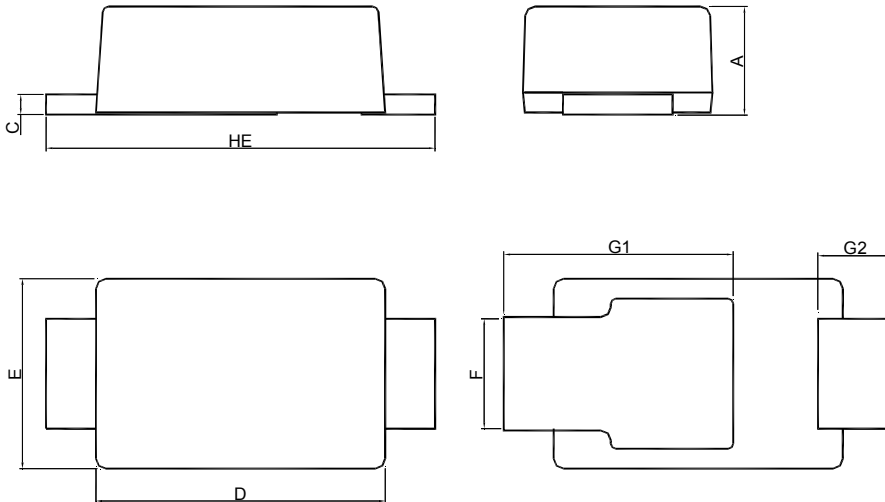
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PACKAGE OUTLINE

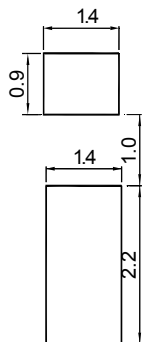
Plastic surface mounted package; 2 leads

SOD-123HE



UNIT	A	C	D	E	F	G1	G2	H _E
mm	1.08 0.88	0.2 0.1	2.9 2.6	1.9 1.7	1.1 0.8	2.3 1.9	0.75 0.55	3.9 3.5

Recommended Soldering Footprint



Packing information

Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	inch	mm	inch	
SOD-123HE	8	4 ± 0.1	0.157 ± 0.004	178	7	3,000

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