



# GS1006HE-AU

## SURFACE GENERAL PURPOSE RECTIFIERS

**VOLTAGE** 600 Volt **CURRENT** 1 Ampere

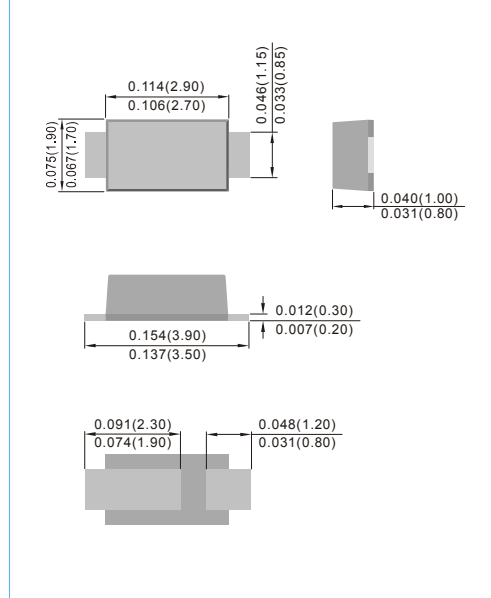
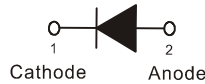
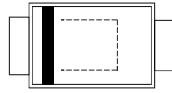
**SOD-123HE** Unit : inch(mm)

### FEATURES

- For surface mounted applications in order to optimize board space
- Ideal for automated placement
- High temperature soldering : 260°C /10 seconds at terminals
- Glass Passivated Chip Junction
- Acquire quality system certificate : TS16949
- AEC-Q101 qualified
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std. . (Halogen Free)

### MECHANICAL DATA

- Case: SOD-123HE, Molded plastic over passivated junction
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.0001 ounce, 0.0042 gram
- Standard Packaging: 8mm tape (EIA-481)
- Polarity: Color band denotes cathode end



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C unless otherwise noted)

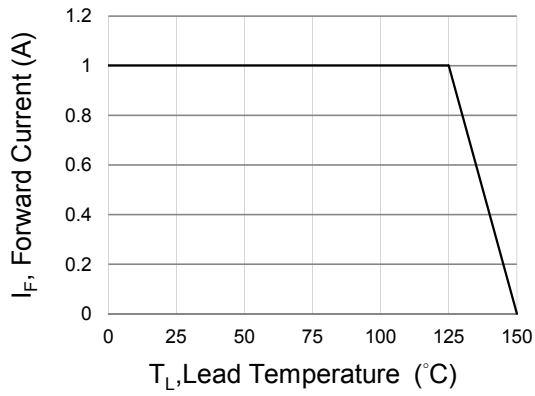
PARAMETER	SYMBOL	VALUE	UNITS
Marking Code	-	H1J	-
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	600	V
Maximum RMS Voltage	V <sub>RMS</sub>	420	V
Maximum DC Blocking Voltage	V <sub>R</sub>	600	V
Maximum Average Forward Current	I <sub>F(AV)</sub>	1	A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	30	A
Maximum Forward Voltage at 1A	V <sub>F</sub>	1.1	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I <sub>R</sub>	1	μA
Typical Junction Capacitance at V <sub>R</sub> =0V	C <sub>J</sub>	15	pF
Typical Thermal Resistance, Junction to Ambient (Note 1) Junction to Lead (Note 2)	R <sub>θJA</sub> R <sub>θJL</sub>	170 32	°C / W
Operating Junction Temperature and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +150	°C

#### NOTES :

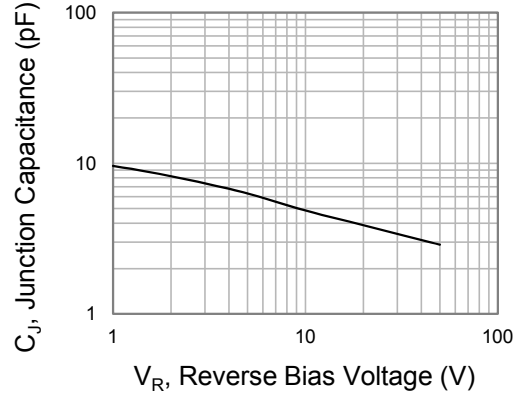
1. Mounted on a FR4 PCB, single-sided copper, with 100cm<sup>2</sup> copper pad area
2. Mounted on a FR4 PCB, single-sided copper, mini pad.



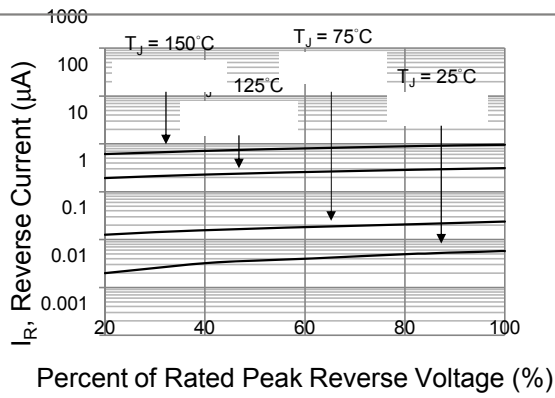
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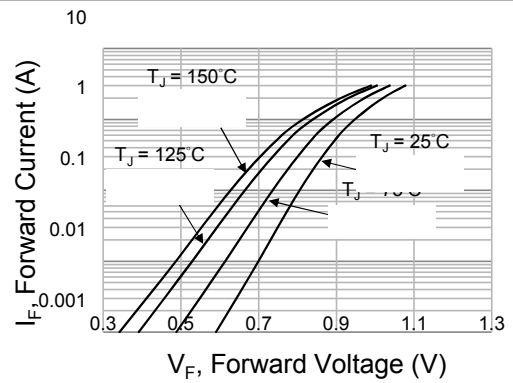
**Fig.1 Forward Current Derating Curve**



**Fig.2 Typical Junction Capacitance**



**Fig.3 Typical Reverse Characteristics**



**Fig.4 Typical Forward Characteristics**

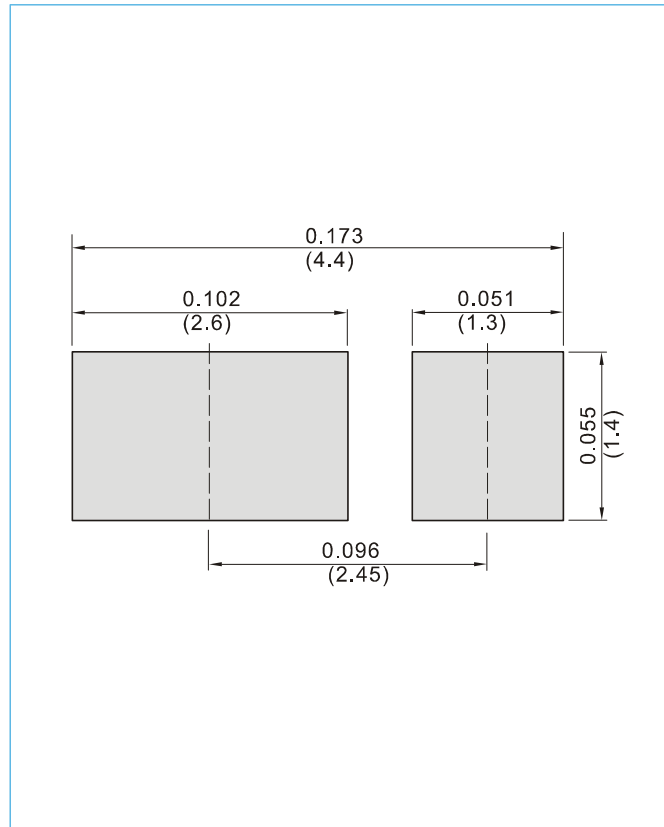


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## MOUNTING PAD LAYOUT

SOD-123HE

Unit : inch(mm)



## ORDER INFORMATION

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



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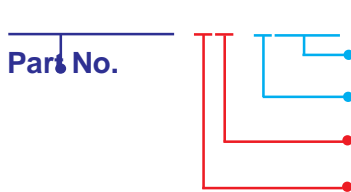
## Part No\_packing code\_Version

GS1006HE-AU\_R1\_000A1

GS1006HE-AU\_R2\_000A1

For example :

**RB500V-40\_R2\_00001**



Serial number

Version code means HF

Packing size code means 13"

Packing type means T/R

Packing Code <b>XX</b>				Version Code <b>XXXXX</b>		
Packing type	1 <sup>st</sup> Code	Packing size code	2 <sup>nd</sup> Code	HF or RoHS	1 <sup>st</sup> Code	2 <sup>nd</sup> ~5 <sup>th</sup> Code
Tape and Ammunition Box (T/B)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	B	13"	2			
Tube Packing (T/P)	T	26mm	X			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y			
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U			
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D			



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