



# GS1004HE SERIES

## SURFACE GENERAL PURPOSE RECTIFIERS

**VOLTAGE** 400 to 800 Volts **CURRENT** 1 Ampere

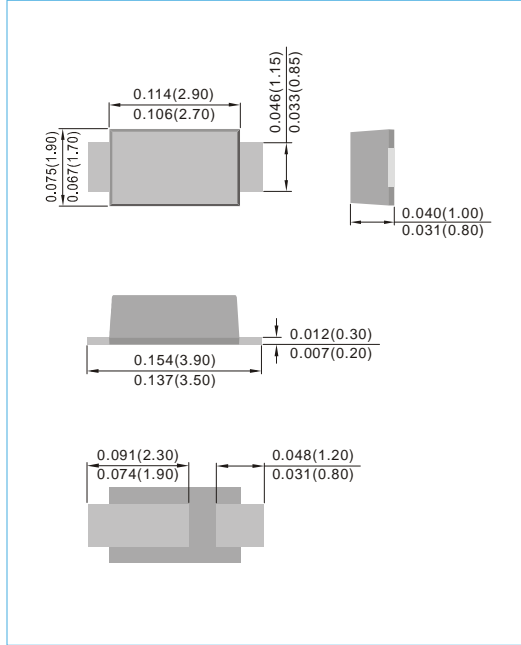
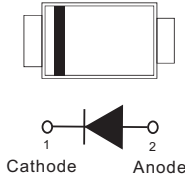
**SOD-123HE** Unit : inch(mm)

### FEATURES

- For surface mounted applications
- Low profile package
- Ideal for automated placement
- High temperature soldering : 260°C /10 seconds at terminals
- Glass Passivated Chip Junction
- In compliance with EU RoHS 2002/95/EC directives

### 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	GS1004HE	GS1006HE	GS1008HE	UNITS
Marking Code	-	H1G	H1J	H1K	-
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	400	600	800	V
Maximum RMS Voltage	V <sub>RMS</sub>	280	420	560	V
Maximum DC Blocking Voltage	V <sub>R</sub>	400	600	800	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 (JEDEC method)	I <sub>FSM</sub>	30			A
Maximum Forward Voltage at 1.0A	V <sub>F</sub>	1.1			V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I <sub>R</sub>	1 50			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>	110 ƒ€			°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 minimum pad layout(1cmX1cm board).
2. Mounted on 50cm<sup>2</sup> copper pad area.



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## RATING AND CHARACTERISTIC CURVES

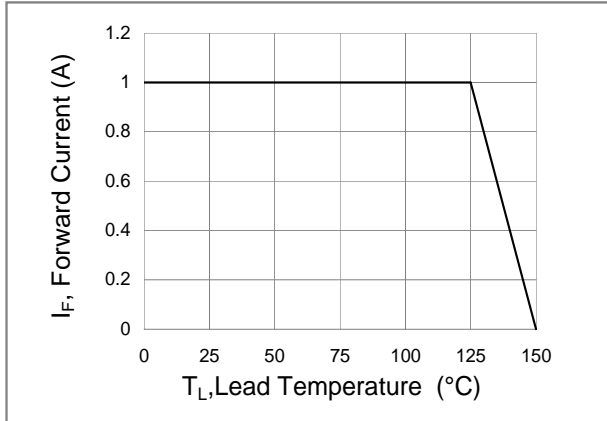


Figure 1: Forward Current vs. Lead Temperature

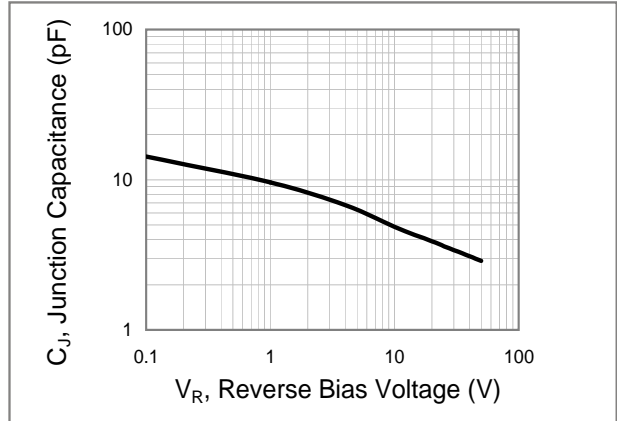


Figure 2: Junction Capacitance vs. Reverse Bias Voltage

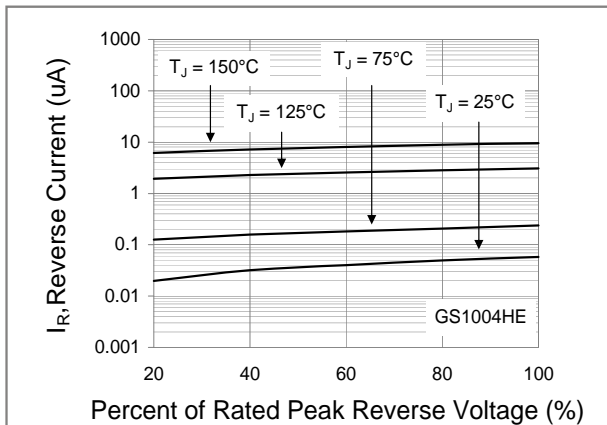


Figure 3: Reverse Current vs. Percent of Rated Peak Reverse Voltage (GS1004HE)

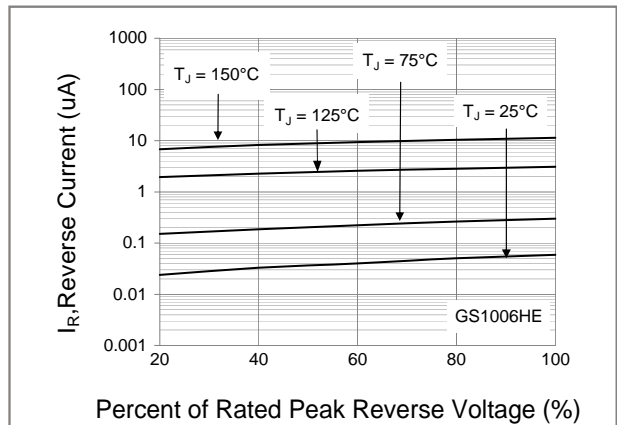


Figure 4: Reverse Current vs. Percent of Rated Peak Reverse Voltage (GS1006HE)

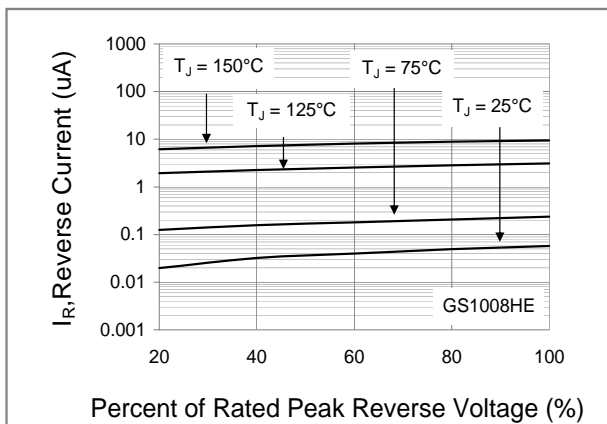


Figure 5: Reverse Current vs. Percent of Rated Peak Reverse Voltage (GS1008HE)

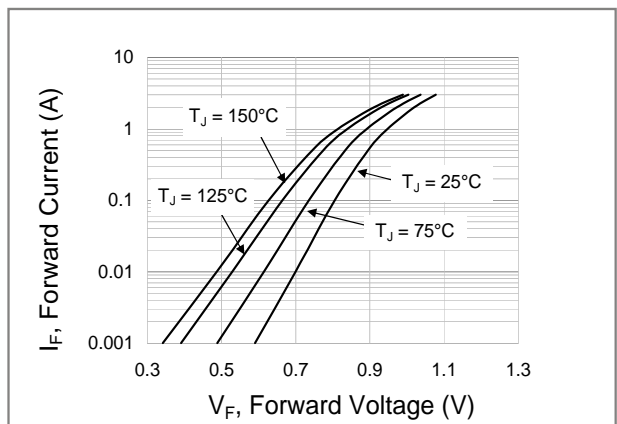
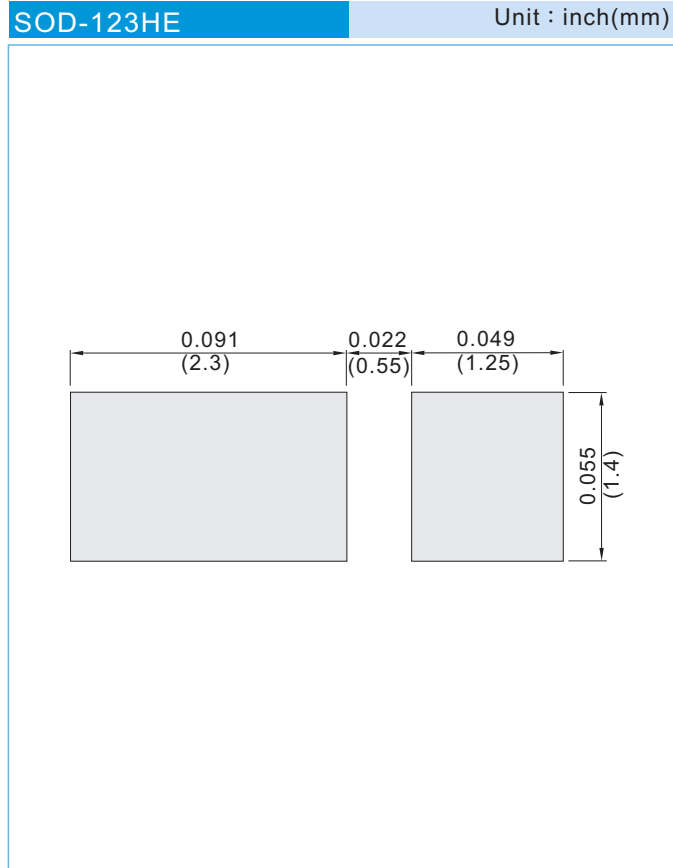


Figure 6: Forward Current vs. Forward Voltage



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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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