



# GS2004HE SERIES

## SURFACE MOUNT RECTIFIER

**VOLTAGE** 400 to 800 Volts **CURRENT** 2 Amperes

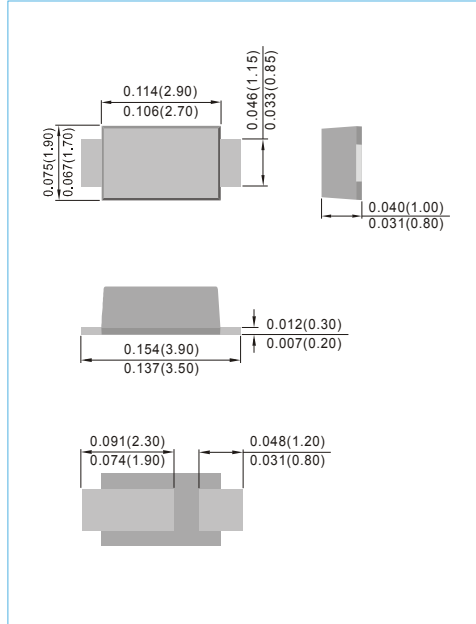
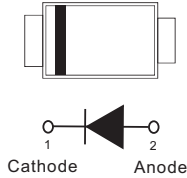
**SOD-123HE** Unit : inch(mm)

### FEATURES

- For surface mounted applications
- Low profile package
- Ideal for automated placement
- Glass Passivated Chip Junction
- Lead free in comply with EU RoHS 2011/65/EU directives.
- Green molding compound as per IEC61249 Std. . (Halogen Free)

### MECHANICAL DATA

- Case: SOD-123HE, Molded plastic over passivated junction
- Terminals: Solder plated, 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

Ratings at 25°C ambient temperature unless otherwise specified.

PARAMETER	SYMBOL	GS2004HE	GS2006HE	GS2008HE	UNITS
Marking Code	-	4H	6H	8H	-
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	400	600	800	V
Maximum RMS Voltage	$V_{RMS}$	280	420	560	V
Maximum DC Blocking Voltage	$V_{DC}$	400	600	800	V
Maximum Average Forward Current at $T_L=100\text{ }^\circ\text{C}$	$I_{F(AV)}$	2.0			A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load(JEDEC method)	$I_{FSM}$	50			A
Maximum Forward Voltage at 2.0A	$V_F$	1.1			V
Maximum DC Reverse Current at Rated DC Blocking Voltage	$I_R$	$T_J=25^\circ\text{C}$	1.0		$\mu\text{A}$
		$T_J=125^\circ\text{C}$	50		
Typical Junction capacitance (Note 1)	$C_J$	12			pF
Typical Thermal Resistance (Note 2)	$R_{\theta JL}$	10			$^\circ\text{C} / \text{W}$
Operating and Storage Temperature Range	$T_J, T_{STG}$	-55 to +150			$^\circ\text{C}$

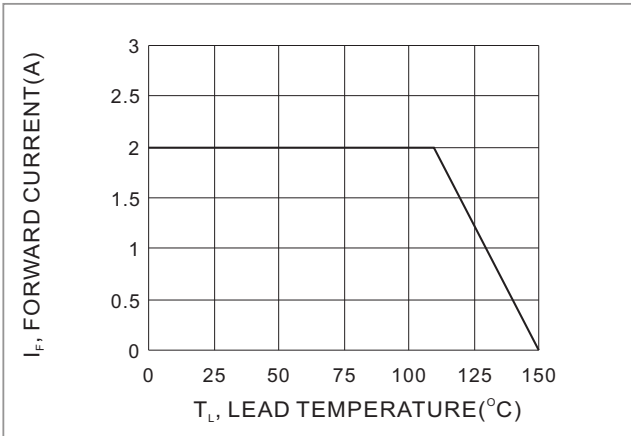
### NOTES :

1. Measured at 1 MHz and applied  $V_r = 4.0$  volts.
2.  $8.0\text{ mm}^2$  ( .013mm thick ) land areas.

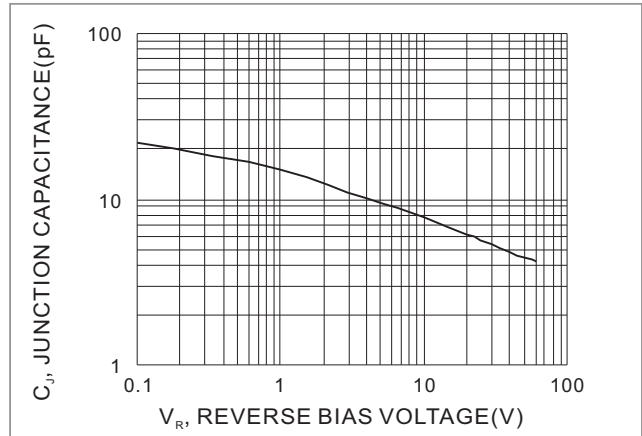


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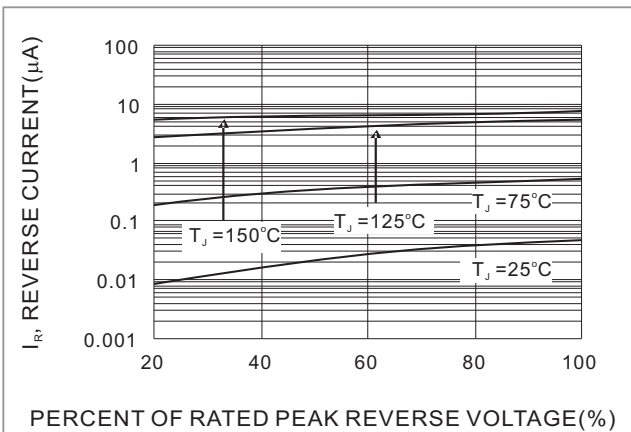
## RATING AND CHARACTERISTIC CURVES



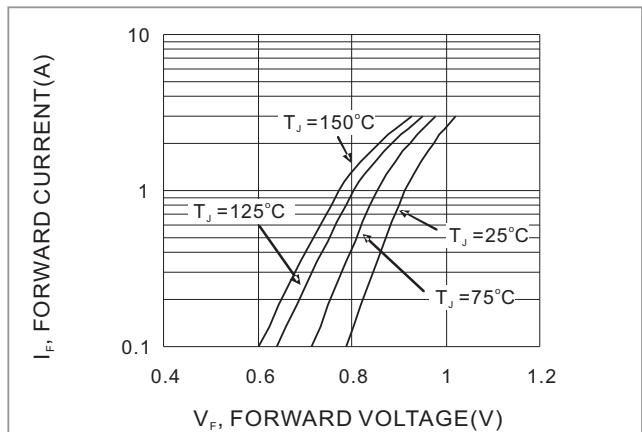
**FIG.1 FORWARD CURRENT DERATING CURVE**



**FIG.2 TYPICAL JUNCTION CAPACITANCE**



**FIG.3 TYPICAL REVERSE CHARACTERISTICS**

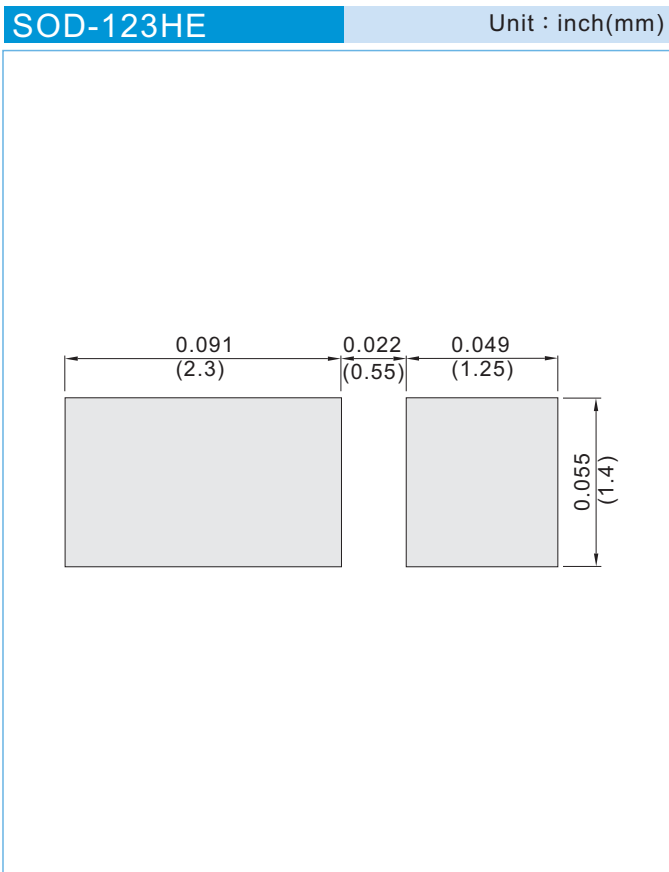


**FIG.4 TYPICAL FORWARD CHARACTERISTICS**



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### MOUNTING PAD LAYOUT



### 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

GS2004HE\_R1\_00001

GS2004HE\_R2\_00001

For example :

**RB500V-40\_R2\_00001**



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)	<b>A</b>	N/A	<b>0</b>	<b>HF</b>	<b>0</b>	serial number
Tape and Reel (T/R)	<b>R</b>	7"	<b>1</b>	<b>RoHS</b>	<b>1</b>	serial number
Bulk Packing (B/P)	<b>B</b>	13"	<b>2</b>			
Tube Packing (T/P)	<b>T</b>	26mm	<b>X</b>			
Tape and Reel (Right Oriented) (TRR)	<b>S</b>	52mm	<b>Y</b>			
Tape and Reel (Left Oriented) (TRL)	<b>L</b>	PANASERT T/B CATHODE UP (PBCU)	<b>U</b>			
FORMING	<b>F</b>	PANASERT T/B CATHODE DOWN (PBCD)	<b>D</b>			



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