



# GS1GF SERIES

## SURFACE MOUNT RECTIFIER

**VOLTAGE** 400-1000 Volts **CURRENT** 1 Ampere

### FEATURES

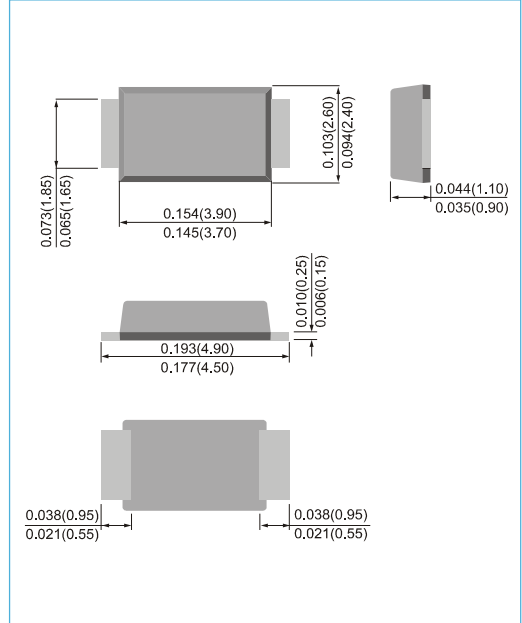
- For surface mounted applications
- Low profile package
- Built-in strain relief
- Easy pick and place
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Low Forward Drop
- High temperature soldering : 260°C/10 seconds at terminals
- Glass Passivated Chip Junction
- Lead free in comply with EU RoHS 2002/95/EC directives.
- Green molding compound as per IEC61249 Std. . (Halogen Free)

### MECHANICAL DATA

- Case: SMAF molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity : Color band denotes cathode end



**SMAF** Unit : inch(mm)



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

PARAMETER	SYMBOL	GS1GF	GS1JF	GS1KF	GS1MF	UNITS
Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	400	600	800	1000	V
RMS Voltage	V <sub>RMS</sub>	280	420	560	700	V
DC Blocking Voltage	V <sub>R</sub>	400	600	800	1000	V
Average Forward Current	I <sub>F(AV)</sub>	1.0				A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load(JEDEC method)	I <sub>FSM</sub>	30				A
Forward Voltage at 1.0A	V <sub>F</sub>	1.1				V
DC Reverse Current at Rated DC Blocking Voltage	I <sub>R</sub>	1.0				μA
Typical Junction capacitance	C <sub>J</sub>	7				pF
Typical Thermal Resistance ,Junction to Lead (Note 1) Junction to Ambient (Note 1)	R <sub>θJL</sub> R <sub>θJA</sub>	20 83				°C / W
Operating Junction Temperature and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +150				°C

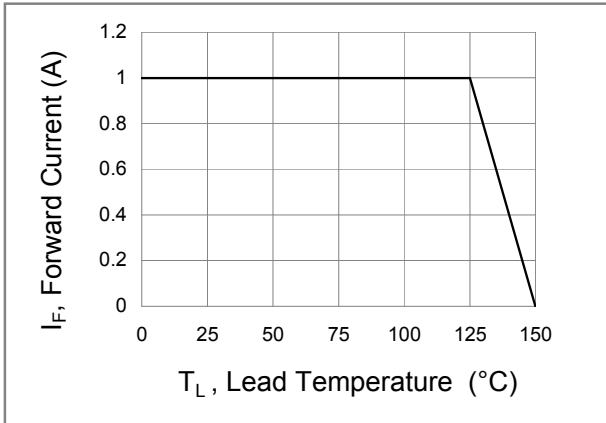
**NOTES :**

1. Mounted on 48cm<sup>2</sup> FR-4 PCB.

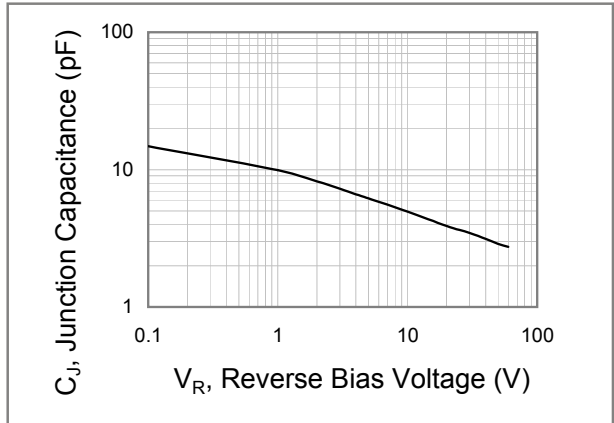


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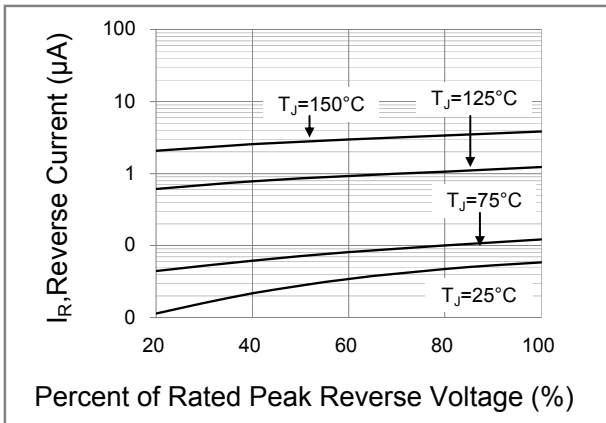
## RATING AND CHARACTERISTIC CURVES



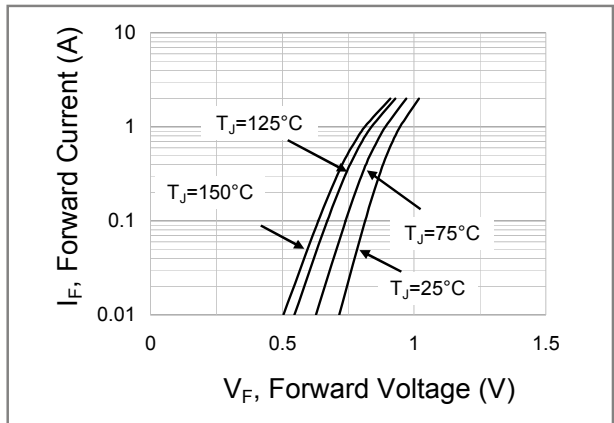
**Fig.1 Forward Current Derating Curve**



**Fig.2 Typical Junction Capacitance**



**Fig.3 Typical Reverse Characteristics**

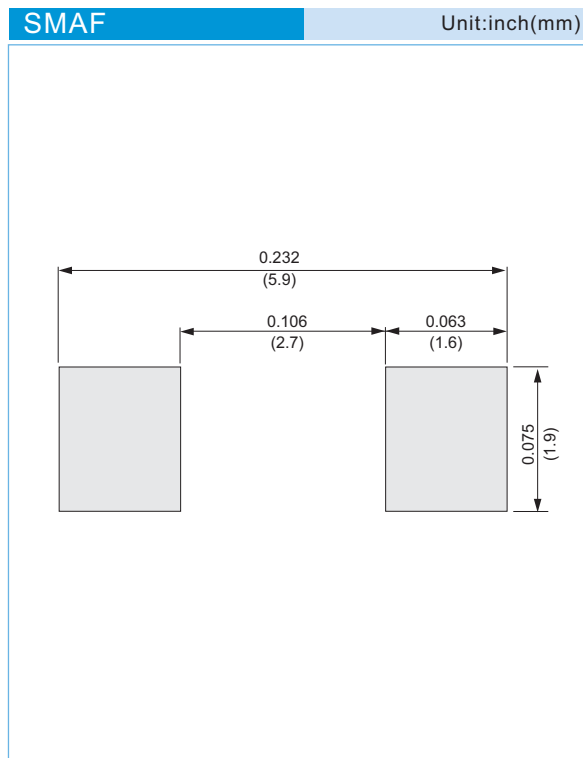


**Fig.4 Typical Forward Characteristics**



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## MOUNTING PAD LAYOUT



## ORDER INFORMATION

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

## LEGAL STATEMENT

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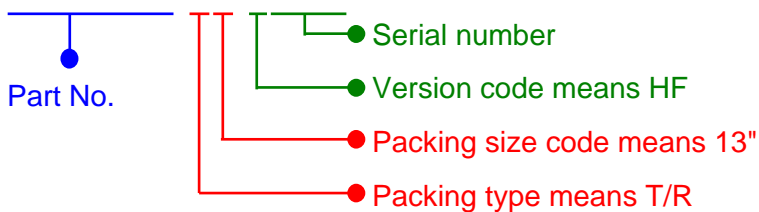


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**Part No\_packing code\_Version**

For example :

**RB500V-40\_R2\_00001**



Packing Code <b>XX</b>				Version Code <b>XXXXX</b>		
Packing type	<b>1<sup>st</sup> Code</b>	Packing size code	<b>2<sup>nd</sup> Code</b>	HF or RoHS	<b>1<sup>st</sup> Code</b>	<b>2<sup>nd</sup>~5<sup>th</sup> Code</b>
T/B	<b>A</b>	N/A	<b>0</b>	HF	<b>0</b>	<b>serial number</b>
T/R	<b>R</b>	7"	<b>1</b>	RoHS	<b>1</b>	<b>serial number</b>
B/P	<b>B</b>	13"	<b>2</b>			
T/P	<b>T</b>	26mm	<b>X</b>			
TRR	<b>S</b>	52mm	<b>Y</b>			
TRL	<b>L</b>	PBCU	<b>U</b>			
FORMING	<b>F</b>	PBCD	<b>D</b>			