

# GS1000FL SERIES

## SURFACE GENERAL PURPOSE RECTIFIERS

**VOLTAGE** 50 to 1000 Volt **CURRENT** 1 Ampere

### FEATURES

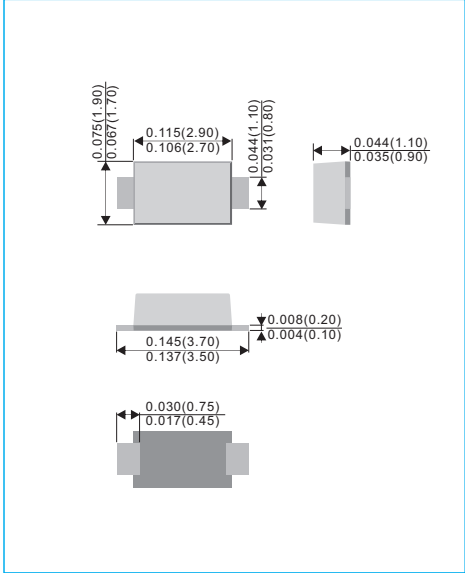
- For surface mounted applications in order to optimize board space
- Low profile package
- Ideal for automated placement
- High temperature soldering : 260°C /10 seconds at terminals
- Glass passivated chip junction
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

### MECHANICAL DATA

- Case: SOD-123FL, Molded plastic over passivated junction
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.0006 ounces, 0.0173 grams
- Standard Packaging: 8mm tape (EIA-481)
- Polarity: Color band denotes cathode end



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



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

PARAMETER	SYMBOL	GS1000FL	GS1001FL	GS1002FL	GS1004FL	GS1006FL	GS1008FL	GS1010FL	UNITS
Marking Code		1A	1B	1D	1G	1J	1K	1M	
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	640	700	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum Average Forward Current	$I_{F(AV)}$	1							A
Peak One Cycle Surge Forward Current (non-repetitive)	$I_{FSM}$	30 (60Hz)							A
Maximum Forward Voltage at 1A (Note 1)	$V_F$	1.1							V
Maximum DC Reverse Current at Rated DC Blocking Voltage <small><math>T_A=25^{\circ}C</math> <math>T_A=125^{\circ}C</math></small>	$I_R$	1 50							$\mu A$
Typical Junction Capacitance at 4V, MHz	$C_J$	4							pF

### ELECTRICAL CHARACTERISTICS

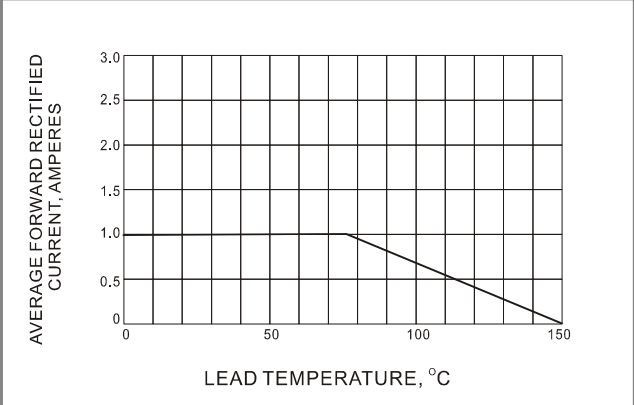
Ratings at 25°C ambient temperature unless otherwise specified.

PARAMETER	SYMBOL	GS1000FL	GS1001FL	GS1002FL	GS1004FL	GS1006FL	GS1008FL	GS1010FL	UNITS
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	65							°C / W
Operating and Storage Temperature Range	$T_J, T_{STG}$	-50 TO +150							°C

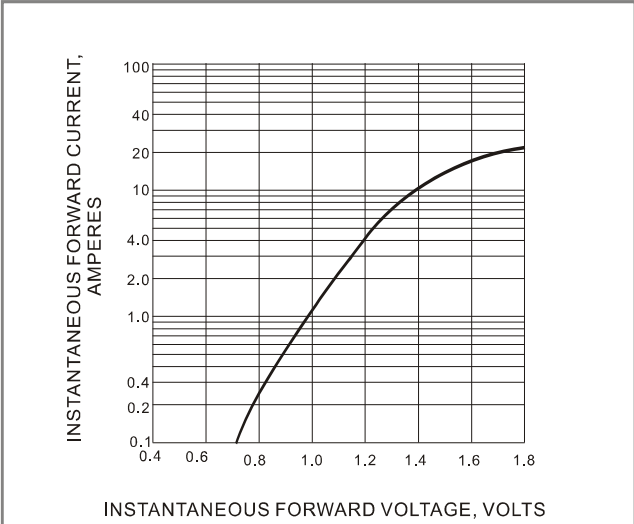
NOTES: 1.Pulse test : 300us pulse width, 1% duty cycle.  
2.Soldering land: 6mm x 6mm

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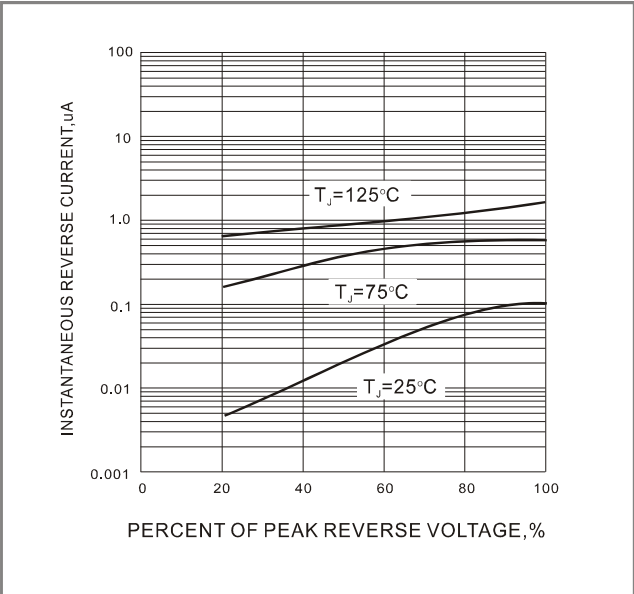
## RATING AND CHARACTERISTIC CURVES



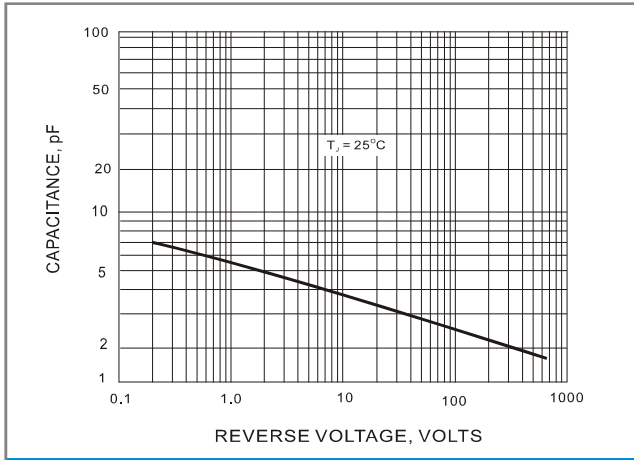
**Fig.1 FORWARD CURRENT DERATING CURVE**



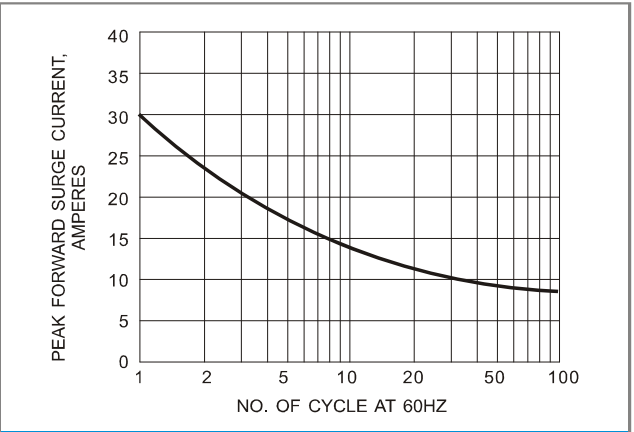
**Fig.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**Fig.3 TYPICAL REVERSE CHARACTERISTICS**



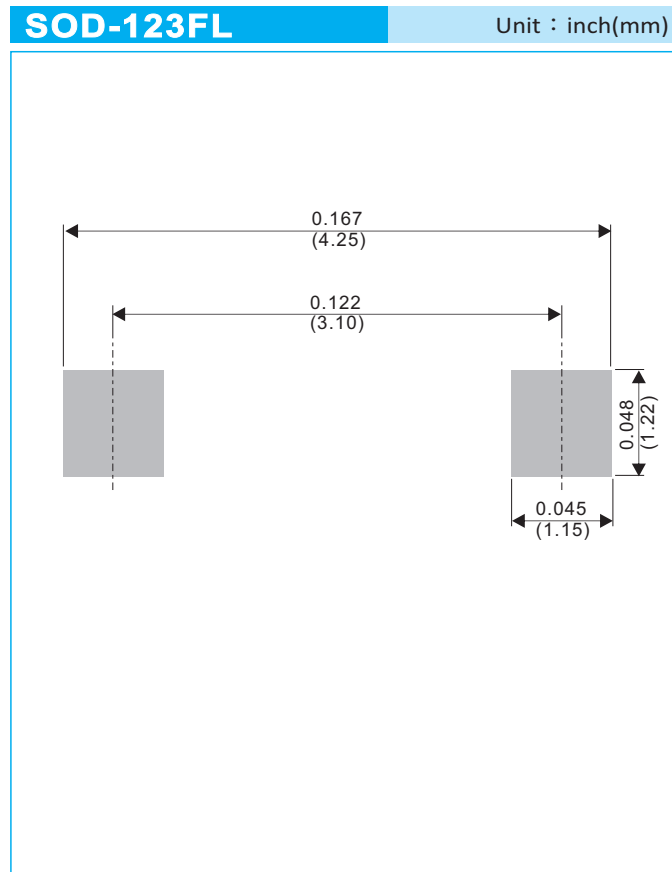
**Fig.4 TYPICAL JUNCTION CAPACITANCE**



**Fig.5- MAXIMUM NON - REPETITIVE SURGE CURRENT**

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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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