



GS1000FL SERIES

SURFACE GENERAL PURPOSE RECTIFIERS

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

FEATURES

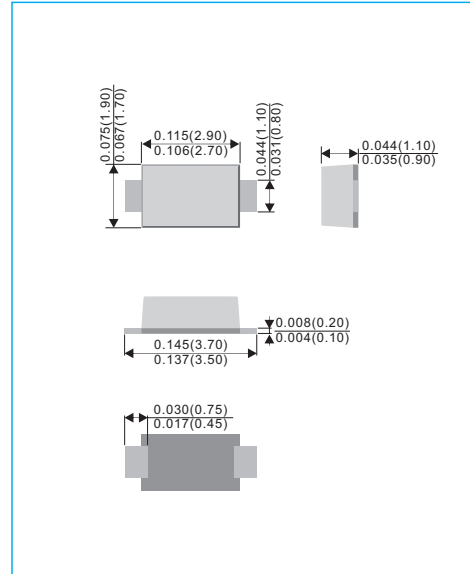
- For surface mounted applications in order to optimize board space
- Low profile package
- Ideal for automated placement
- High temperature soldering : 260°C /10 seconds at terminals
- Glass passivated chip junction
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 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>$T_A=25^{\circ}C$ $T_A=125^{\circ}C$</small> | I_R | 1 50 | | | | | | | μA |
| 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

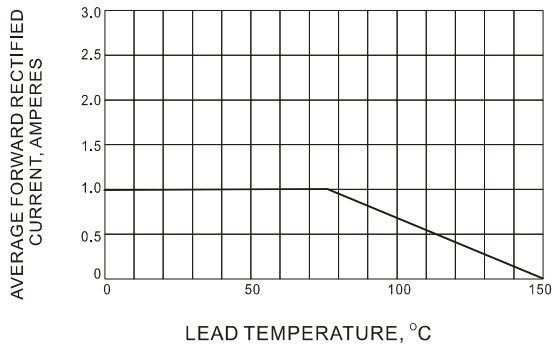


Fig.1 FORWARD CURRENT DERATING CURVE

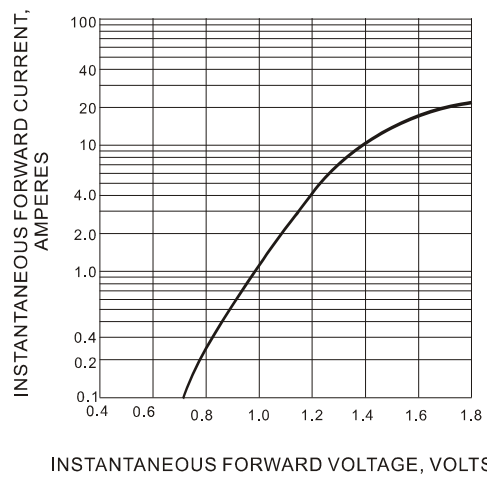


Fig.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

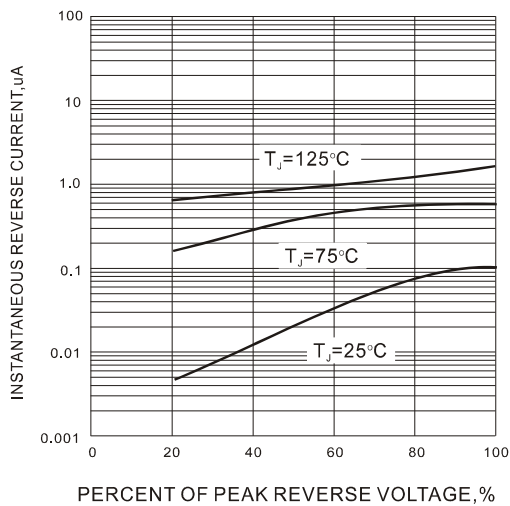


Fig.3 TYPICAL REVERSE CHARACTERISTICS

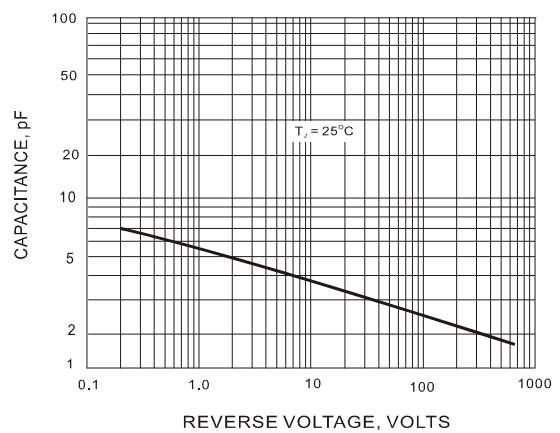


Fig.4 TYPICAL JUNCTION CAPACITANCE

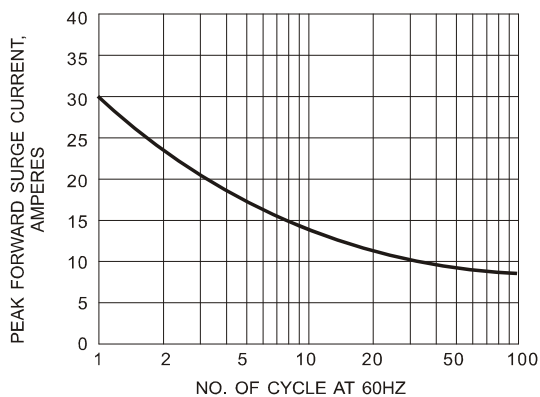
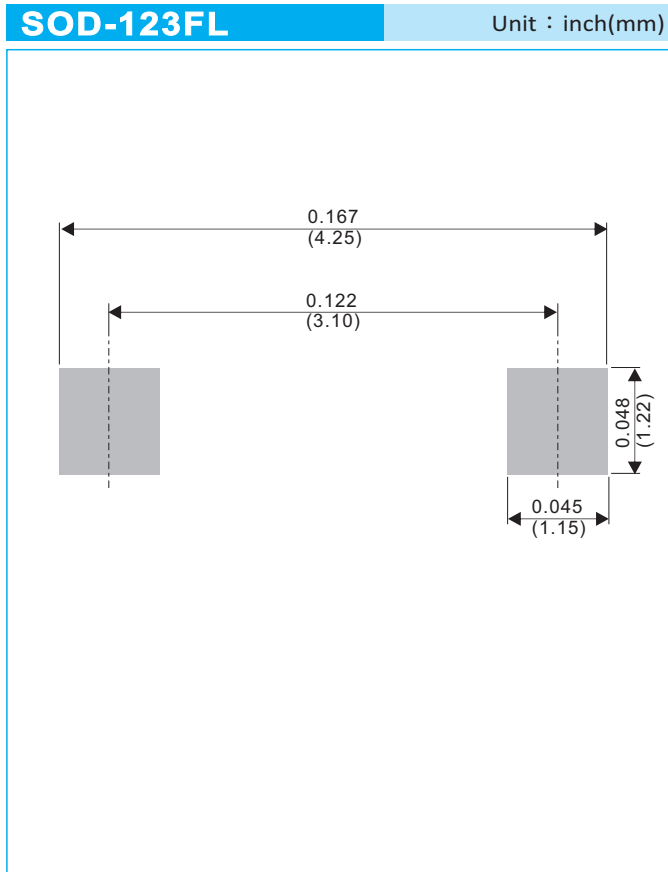


Fig.5- MAXIMUM NON - REPETITIVE SURGE CURRENT



GS1000FL SERIES

MOUNTING PAD LAYOUT



ORDER INFORMATION

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



GS1000FL SERIES

Part No._packing code_Version

GS1000FL_R1_00001

GS1000FL_R2_00001

For example :

RB500V-40_R2_00001



| Packing Code XX | | | | Version Code XXXXX | | |
|--------------------------------------|----------------------|----------------------------------|----------------------|---------------------------|----------------------|---------------------------------------|
| Packing type | 1 st Code | Packing size code | 2 nd Code | HF or RoHS | 1 st Code | 2 nd ~5 th 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 | | | |