



GS1000FL~GS1010FL

SURFACE MOUNT SWITCHING DIODES

VOLTAGE 50 to 1000 Volts **CURRENT** 1.0 Amperes

SOD-123FL

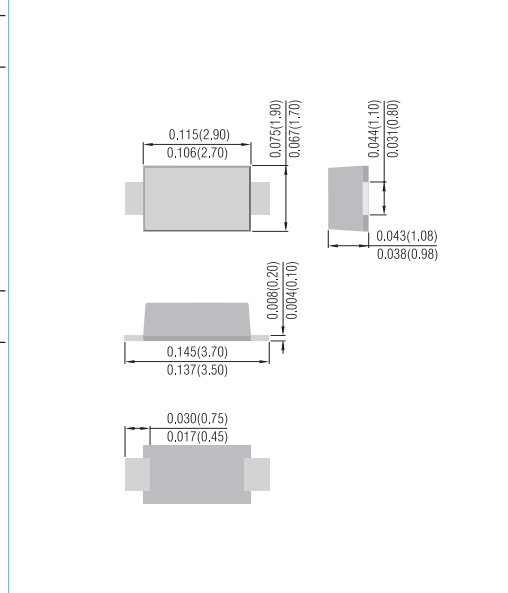
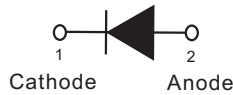
Unit: inch (mm)

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-123FL, Molded plastic over passivated junction
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.01 gram
- Standard Packaging : 8mm tape (EIA-481)
- Polarity : Color band cathode



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 | 560 | 700 | V |
| Maximum DC Blocking Voltage | V_{DC} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum Average Forward Current (Note 1) | $I_{F(AV)}$ | 1.0 | | | | | | | A |
| Peak one cycle surge forward current (non-repetitive) | I_{FSM} | 30 (60Hz) | | | | | | | A |
| Maximum Forward Voltage at 1.0A | V_F | 1.1 | | | | | | | V |
| Maximum DC Reverse Current at $T_J=25^\circ\text{C}$ Rated DC Blocking Voltage $T_J=125^\circ\text{C}$ | 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 | | | | | | | $^\circ\text{C} / \text{W}$ |
| Operating and Storage Temperature Range | T_J, T_{STG} | -50 to +150 | | | | | | | $^\circ\text{C}$ |

NOTES:

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



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RATING AND CHARACTERISTIC CURVES

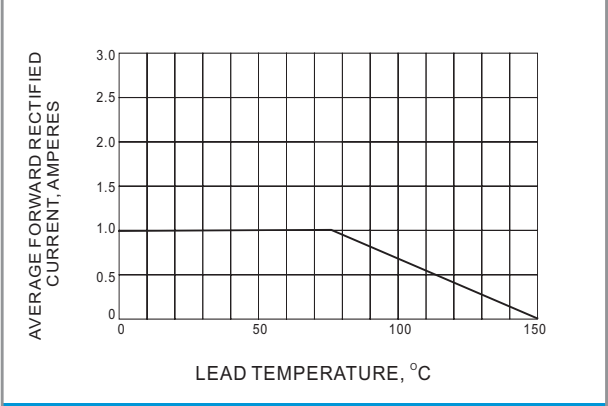


Fig.1 FORWARD CURRENT DERATING CURVE

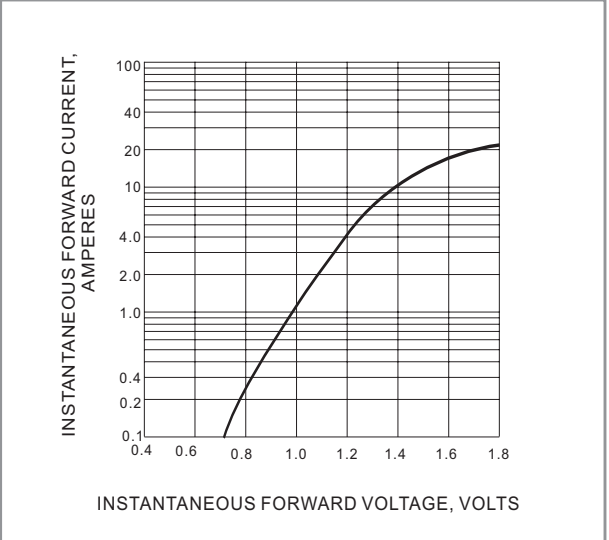


Fig.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

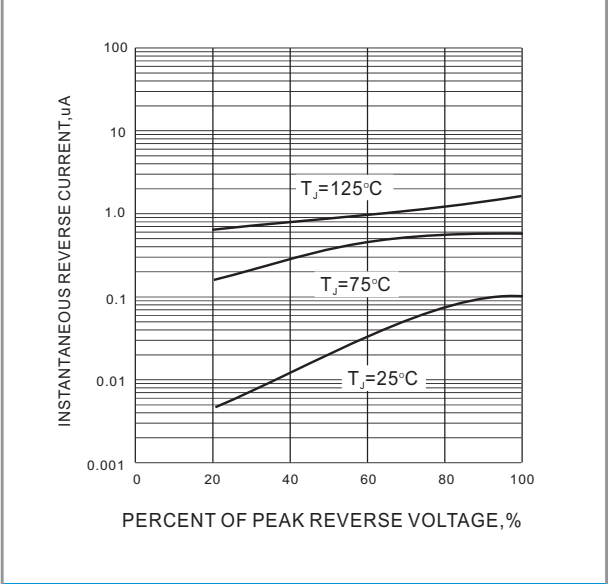


Fig.3 TYPICAL REVERSE CHARACTERISTICS

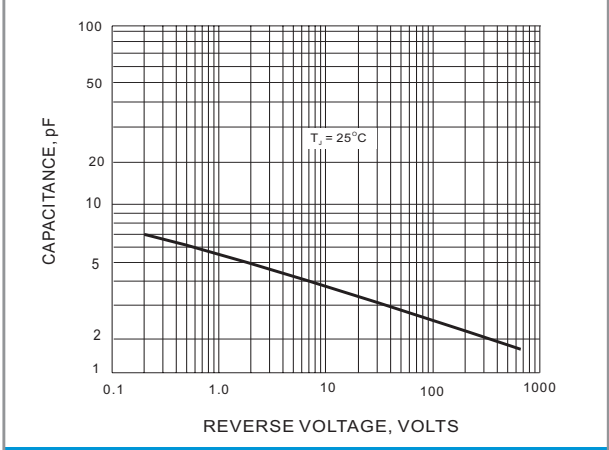


Fig.4 TYPICAL JUNCTION CAPACITANCE

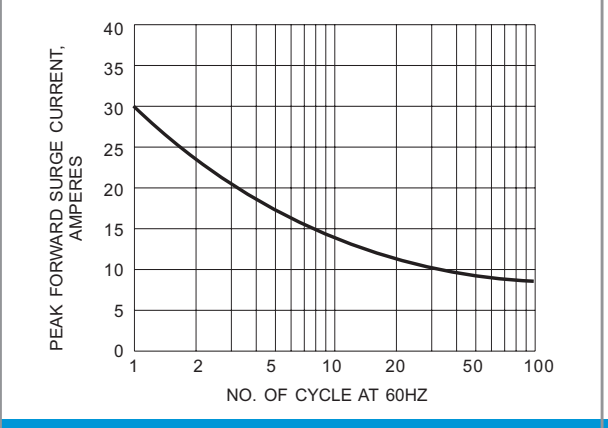


Fig.5- MAXIMUM NON - REPETITIVE SURGE CURRENT

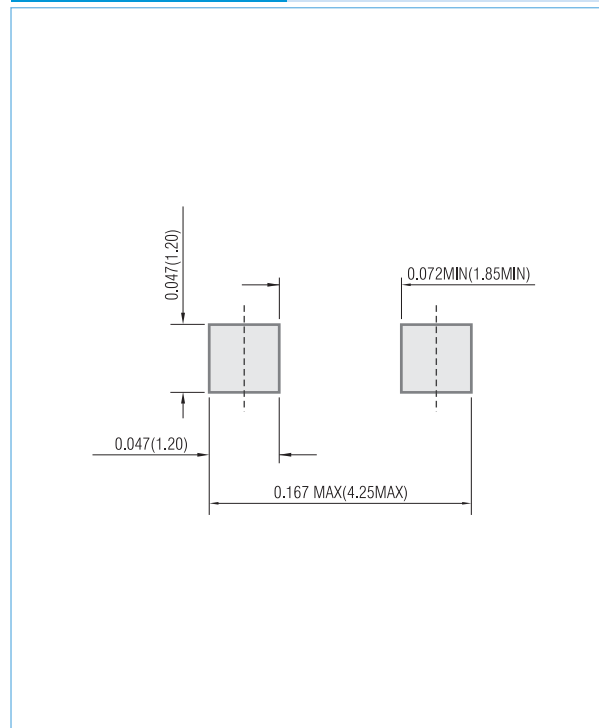


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MOUNTING PAD LAYOUT

SOD-123FL

Unit: inch (mm)



ORDER INFORMATION

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

LEGAL STATEMENT

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