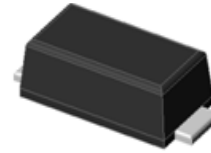


Surface Mount Glass Passivated Standard Rectifier

Reverse Voltage 50V ~ 1000V , Forward Current 1.0 Amps

Features

- Glass passivated Standard rectifiers
- Compatible with SOD-123
- **Super low VF**
- **High forward surge capability**
- Moisture sensitivity: level 1, per J-STD-020
- AEC-Q101 qualified
- Low profile, Max height 1.08mm



SMF

MECHANICAL DATA

- Case: JEDEC SOD-123 molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Weight: 0.01 gram

TYPICAL APPLICATIONS

For use of general purpose rectification in lighting, cellular phone, portable device, power supplies and other consumer applications.

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Ratings at 25°C ambient temperature unless otherwise specified ,Single phase ,half wave 60Hz,,resistive or inductive load. For capacitive load, derate by 20%.)

| Parameter | Symbols | G1A | G1B | G1D | G1G | G1J | G1K | G1M | Units |
|--|---------|------------|-----|-----|-----|-----|-----|------|-------|
| Maximum Recurrent Peak Reverse Voltage | VRRM | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum RMS Voltage | VRMS | 35 | 70 | 140 | 280 | 420 | 560 | 700 | Volts |
| Maximum DC Blocking Voltage | VDC | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum average Forward Rectified Current 0.375"(9.5mm) lead length at TA=75°C | I(AV) | 1.0 | | | | | | | Amp |
| Peak Forward Surge Current (8.3ms half sine-wave superimposed on rated load (JEDEC method) TA=75°C | IFSM | 30 | | | | | | | Amps |
| Maximum Instantaneous Forward Voltage at 1.0 A | VF | 1.1 | | | | | | | Volts |
| Maximum Reverse current at rated DC Blocking Voltage | IR | 5.0 | | | | | | | μA |
| | | 50.0 | | | | | | | |
| Typical Thermal resistance (Note 2) | Rθ JL | 20 | | | | | | | °C/W |
| Typical Junction Capacitance(Note 1) | CJ | 15 | | | | | | | PF |
| Operating and Storage temperature Range | TJ | -55 ~ +150 | | | | | | | °C |
| | TSTG | | | | | | | | |

Note: 1. Measured at 1MHz and applied reverse voltage of 4.0V DC.

2. Thermal resistance from junction to ambient and from junction to lead at 0.375"(9.5mm)lead length, P.C.B. mounted



RATING AND CHARACTERISTIC CURVES

FIG.1-FORWARD CURRENT DERATING CURVE

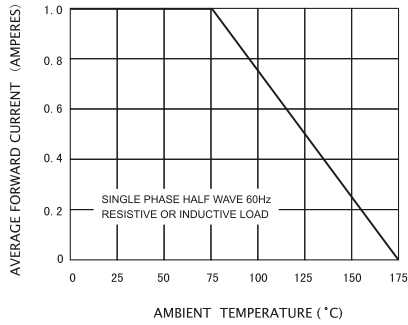


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

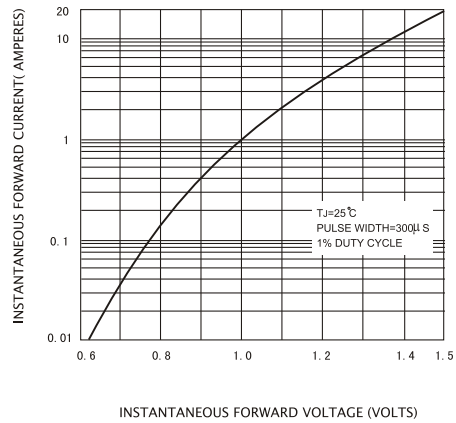


FIG.3-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

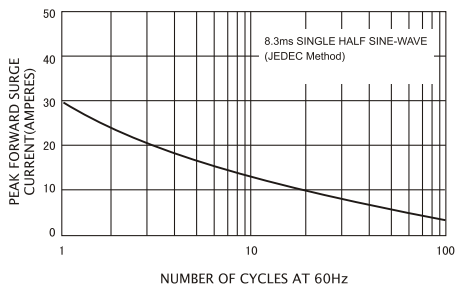


FIG.4-TYPICAL REVERSE CHARACTERISTICS

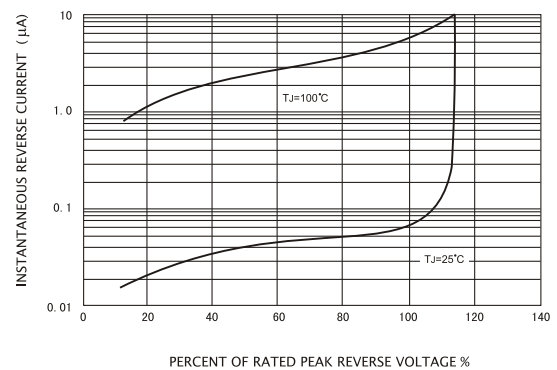
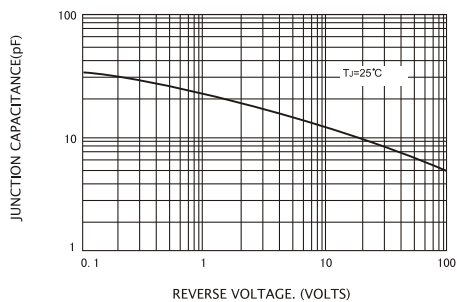


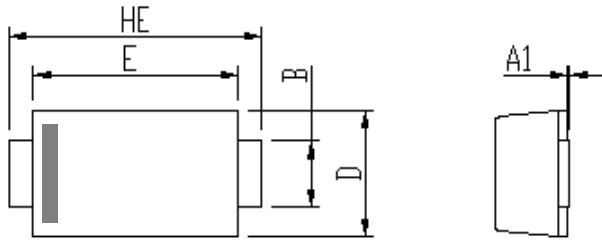
FIG.5-TYPICAL JUNCTION CAPACITANCE



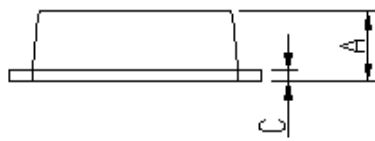


G1A ~ G1M

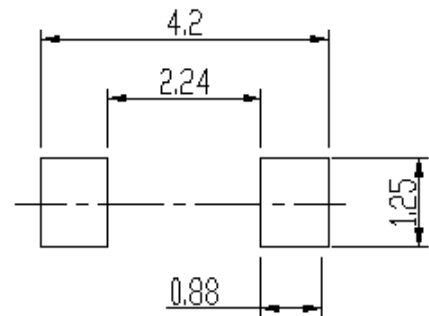
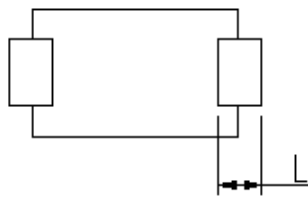
PACKAGE OUTLINE DIMENSIONS (in millimeters)



| DIM | Unit: mm | | Unit: inch | |
|-----|----------|------|------------|-------|
| | MIN | MAX | MIN | MAX |
| A | 1.0 | 1.2 | 0.035 | 0.043 |
| A1 | 0 | 0.1 | 0.000 | 0.004 |
| b | 0.90 | 1.10 | 0.033 | 0.041 |
| c | 0.1 | 0.25 | 0.004 | 0.010 |
| D | 1.6 | 1.9 | 0.067 | 0.079 |
| E | 2.5 | 2.9 | 0.114 | 0.122 |
| L | 0.40 | 0.90 | 0.017 | 0.033 |
| HE | 3.6 | 3.9 | 0.138 | 0.154 |



Soldering footprint



PACKING INFORMATION

Packing quantities:

3000 pcs/Reel, 40 Reels/Box; 8mm Tape, 7" Reel

Tape & Reel Specification

