

Features

- AEC-Q101 Qualified
- Halogen Free. "Green" Device (Note 1)
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- Lead Free Finish/RoHS Compliant (Note2) ("P" Suffix Designates Compliant. See Ordering Information)

Maximum Ratings

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Thermal Resistance: 30°C/W Junction to Lead(Note3)
- Thermal Resistance: 85°C/W Junction to Ambient(Note3)

| MCC Part Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|-----------------|----------------|--|---------------------|-----------------------------|
| GS1AHE3-L | GS1A | 50V | 35V | 50V |
| GS1BHE3-L | GS1B | 100V | 70V | 100V |
| GS1DHE3-L | GS1D | 200V | 140V | 200V |
| GS1GHE3-L | GS1G | 400V | 280V | 400V |
| GS1JHE3-L | GS1J | 600V | 420V | 600V |
| GS1KHE3-L | GS1K | 800V | 560V | 800V |
| GS1MHE3-L | GS1M | 1000V | 700V | 1000V |

Electrical Characteristics @ 25°C Unless Otherwise Specified

| | | | |
|---|-------------|-----------------------|---|
| Average Forward Current | $I_{F(AV)}$ | 1.0A | $T_L = 110^\circ\text{C}$ |
| Peak Forward Surge Current | I_{FSM} | 40A | 8.3ms, Half Sine |
| Maximum Instantaneous Forward Voltage | V_F | 1.0V | $I_{FM} = 1.0\text{A}; T_J = 25^\circ\text{C}^*$ |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | I_R | 1μA 50μA | $T_J = 25^\circ\text{C}$ $T_J = 125^\circ\text{C}$ |
| Typical Junction Capacitance | C_J | 15pF | Measured at 1.0MHz, $V_R = 4.0\text{V}$ |
| Typical Reverse Recovery Time | t_{rr} | 2.0μs | $I_F = 0.5\text{A}, I_R = 1.0\text{A}, I_{rr} = 0.25\text{A}$ |
| Rating For Fusing | I^2t | 3.735A ² s | |
| Avalanche Energy | EAS | 20mJ | LH:40mH |

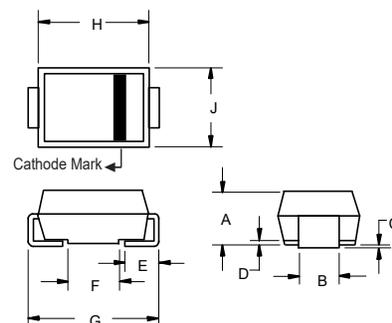
*Pulse Test: Pulse Width 300 μsec, Duty Cycle 2%

Note:

1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
2. High Temperature Solder Exemption Applied, See EU Directive Annex 7a.
3. Mounted on P.C.B. with 0.2" x 0.2" (5.0 mm x 5.0 mm) copper.

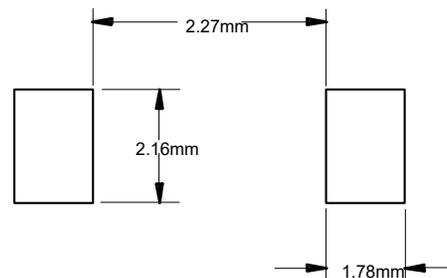
1 Amp Glass Passivated Rectifier 50 - 1000 Volts

SMA (DO-214AC)



| DIM | DIMENSIONS | | | | NOTE |
|-----|------------|-------|-------|-------|------|
| | INCHES | | MM | | |
| | MIN | MAX | MIN | MAX | |
| A | 0.079 | 0.096 | 2.00 | 2.44 | |
| B | 0.050 | 0.064 | 1.27 | 1.63 | |
| C | 0.002 | 0.008 | 0.051 | 0.203 | |
| D | --- | 0.020 | --- | 0.51 | |
| E | 0.030 | 0.060 | 0.76 | 1.52 | |
| F | 0.065 | 0.091 | 1.65 | 2.32 | |
| G | 0.189 | 0.220 | 4.80 | 5.59 | |
| H | 0.157 | 0.181 | 4.00 | 4.60 | |
| J | 0.090 | 0.115 | 2.25 | 2.92 | |

SUGGESTED SOLDER PAD LAYOUT



Curve Characteristics

Fig. 1 - Typical Instantaneous Forward Characteristics

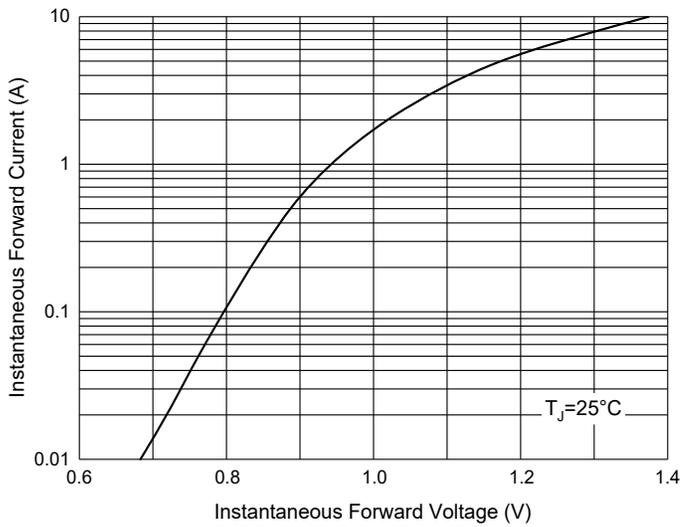


Fig. 2 - Typical Reverse Leakage Characteristics

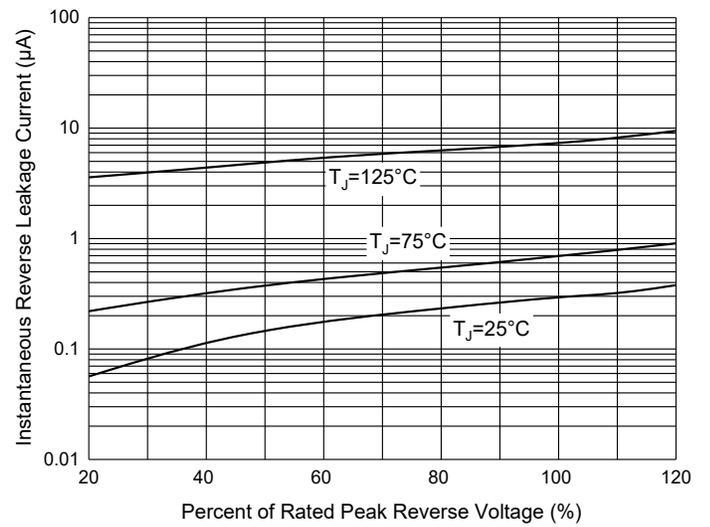


Fig. 3 - Forward Current Derating Curve

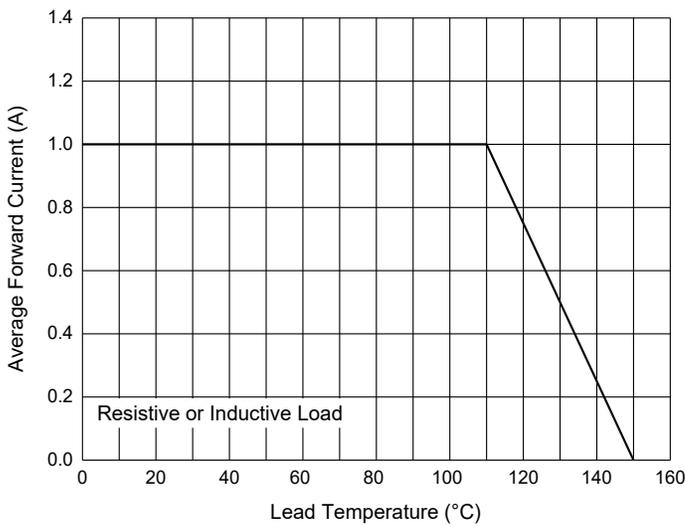
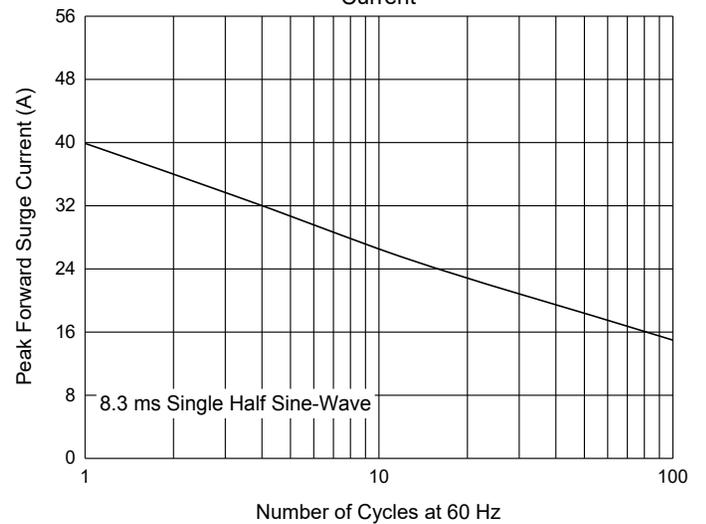


Fig. 4 - Maximum Non-Repetitive Peak Forward Surge Current



Ordering Information

| Device | Packing |
|-----------------|-------------------------|
| Part Number-LTP | Tape&Reel: 7.5Kpcs/Reel |

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