



1G1 THRU 1G7

MINIATURE GLASS PASSIVATED JUNCTION RECTIFIER

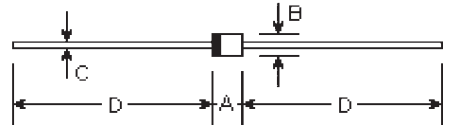
Reverse Voltage - 50 to 1000 Volts

Forward Current - 1.0 Ampere

Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0 utilizing Flame retardant epoxy molding compound
- Glass passivated junction version of 1G1 thru 1G7 in R-1 package
- 1.0 ampere operation at $T_A=75^\circ\text{C}$ with no thermal runaway

R-1



Mechanical Data

- **Case:** Molded plastic, R-1
- **Terminals:** Axial leads, solderable per MIL-STD-202, method 208
- **Polarity:** Color band denotes cathode
- **Mounting Position:** Any
- **Weight:** 0.007 ounce, 0.205 gram

| DIMENSIONS | | | | | Note |
|------------|--------|-------|-------|------|------|
| DIM | inches | | mm | | |
| | Min. | Max. | Min. | Max. | |
| A | 0.114 | 0.138 | 2.9 | 3.5 | |
| B | 0.095 | 0.099 | 2.42 | 2.51 | ϕ |
| C | 0.020 | 0.024 | 0.5 | 0.6 | ϕ |
| D | 1.000 | - | 25.40 | - | |

Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.

| | Symbols | 1G1 | 1G2 | 1G3 | 1G4 | 1G5 | 1G6 | 1G7 | Units |
|--|-----------------|--------------|-----|-----|-----|-----|-----|------|--------------------|
| Maximum repetitive peak reverse voltage | V_{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum RMS voltage | V_{RMS} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | Volts |
| Maximum DC blocking voltage | V_{DC} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum average forward rectified current 0.375" (9.5mm) lead length at $T_A=75^\circ\text{C}$ | $I_{(AV)}$ | 1.0 | | | | | | | Amp |
| Peak forward surge current, I_{FSM} (surge): 8.3mS single half sine-wave superimposed on rated load (MIL-STD-750D 4066 method) | I_{FSM} | 30.0 | | | | | | | Amps |
| Maximum forward voltage at 1.0A | V_F | 1.1 | | | | | | | Volts |
| Maximum DC reverse current at rated DC blocking voltage $T_A=25^\circ\text{C}$ $T_A=100^\circ\text{C}$ | I_R | 5.0 100.0 | | | | | | | μA |
| Typical junction capacitance (Note 1) | C_j | 15.0 | | | | | | | μF |
| Typical thermal resistance (Note 2) | $R_{\theta JA}$ | 50.0 | | | | | | | $^\circ\text{C/W}$ |
| Operating and storage temperature range | T_J, T_{STG} | -55 to +150 | | | | | | | $^\circ\text{C}$ |

Notes:

- (1) Measured at 1.0MHz and applied reverse voltage of 4.0 VDC
- (2) Thermal resistance junction to ambient

RATINGS AND CHARACTERISTIC CURVES

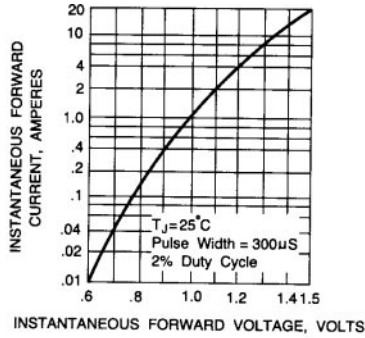


Fig. 1 - TYPICAL FORWARD CHARACTERISTICS

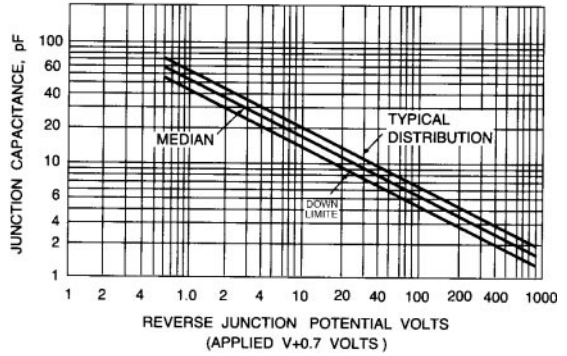


Fig. 2 - JUNCTION CAPACITANCE

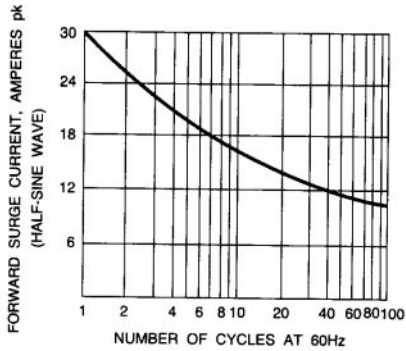


Fig. 3 - PEAK FORWARD SURGE CURRENT

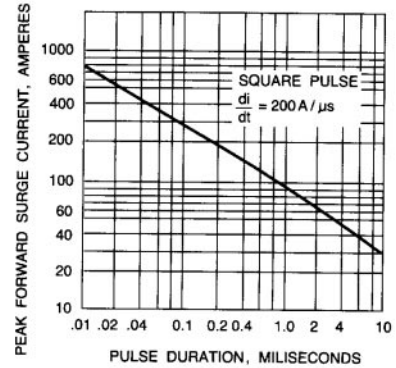


Fig. 4 - PEAK FORWARD SURGE CURRENT

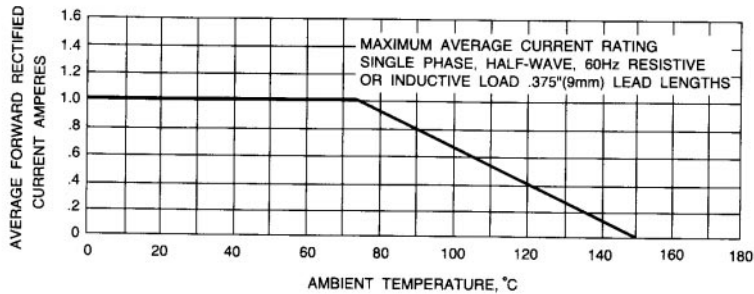


Fig. 5 - FORWARD DERATING CURVE