



## AXIAL SILASTIC GUARD JUNCTION STANDARD RECTIFIER

**1G1 THRU 1G7**

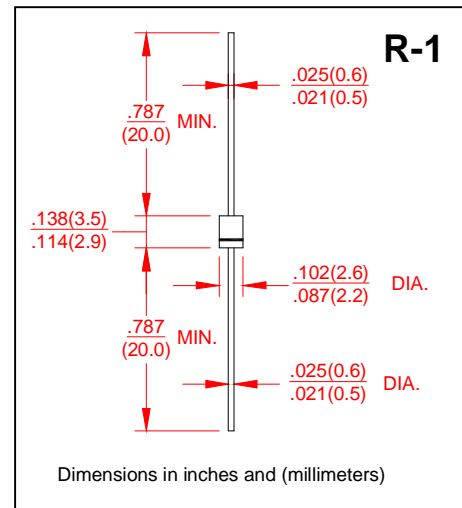
**VOLTAGE RANGE** 50 to 1000 Volts  
**CURRENT** 1.0 Ampere

### FEATURES

- Glass passivated chip junction
- Low forward voltage drop
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed:  
260°C/10 seconds, 0.375" (9.5mm) lead length at 5 lbs (2.3kg) tension

### MECHANICAL DATA

- Case: Transfer molded plastic
- Epoxy: UL94V-0 rate flame retardant
- Polarity: Color band denotes cathode end
- Lead: Plated axial lead, solderable per MIL-STD-202E method 208C
- Mounting position: Any
- Weight: 0.007ounce, 0.20 grams



### 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 current by 20%

	SYMBOLS	1G1	1G2	1G3	1G4	1G5	1G6	1G7	UNIT	
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 $T_A=25^\circ\text{C}$	$I_{(AV)}$	1.0							Amp	
Peak Forward Surge Current 8.3mS single half sine wave superimposed on rated load (JEDEC method)	$I_{FSM}$	25							Amps	
Maximum Instantaneous Forward Voltage @ 1.0A	$V_F$	1.1							Volts	
Maximum DC Reverse Current at Rated DC Blocking Voltage	$T_A=25^\circ\text{C}$	$I_R$							5.0	$\mu\text{A}$
	$T_A=125^\circ\text{C}$								50	
Maximum DC Reverse Current, full cycle Average 0.375 (9.5mm) lead length at $T_L=75^\circ\text{C}$	$I_{R(AV)}$	30							$\mu\text{A}$	
Typical Junction Capacitance (NOTE 1)	$C_J$	15							pF	
Typical Thermal Resistance (NOTE 2)	$R_{\theta JA}$	50							$^\circ\text{C/W}$	
Operating Temperature Range	$T_J$	(-55 to +150)							$^\circ\text{C}$	
Storage Temperature Range	$T_{STG}$	(-55 to +150)								

#### Notes:

1. Measured at 1.0MHz and applied Reverse voltage of 4.0Volts.
2. Thermal Resistance from Junction to Ambient at .375" (9.5mm) lead length, P.C. board mounted.



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## RATING AND CHARACTERISTIC CURVES 1G1 THRU 1G7

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

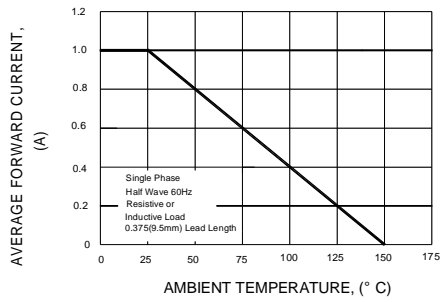


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

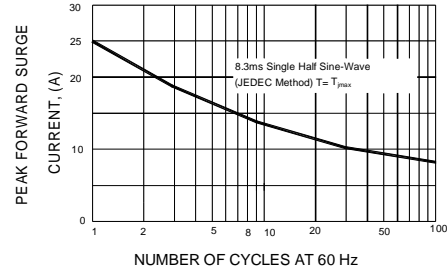


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

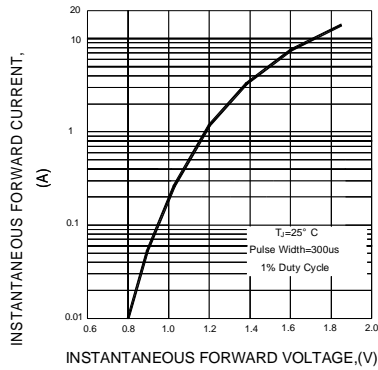


FIG.4-TYPICAL REVERSE CHARACTERISTICS

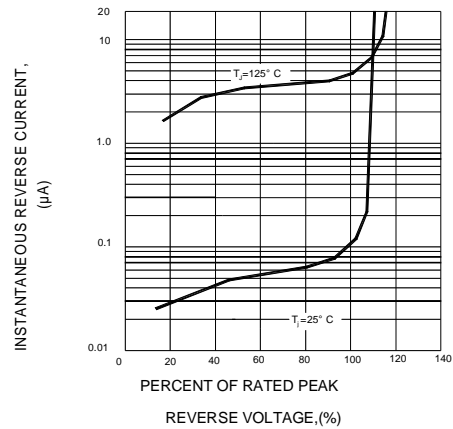


FIG.5-TYPICAL JUNCTION CAPACITANCE

