



## AXIAL SILASTIC GUARD JUNCTION STANDARD RECTIFIER

**6A05G THRU 6A10G**

**VOLTAGE RANGE**

**50 to 1000 Volts**

**CURRENT**

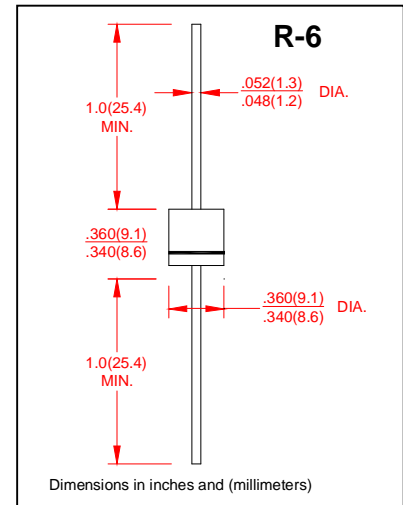
**6.0 Ampere**

### FEATURES

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

### 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: 0.07ounce, 2.0 gram



### 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	6A 05G	6A 1G	6A 2GG	6A 4G	6A 6G	6A 8G	6A 10G	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 $T_A=60^\circ\text{C}$	$I_{(AV)}$	6.0							Amps	
Peak Forward Surge Current 8.3mS single half sine wave superimposed on rated load (JEDEC method)	$I_{FSM}$	250							Amps	
Maximum Instantaneous Forward Voltage at 6.0A	$V_F$	0.95							Volts	
Maximum DC Reverse Current at rated DC blocking Voltage at	$T_A = 25^\circ\text{C}$	$I_R$							10.0	$\mu\text{A}$
	$T_A = 100^\circ\text{C}$								500	
Maximum Full Load Reverse Current, full cycle Average 0.375 (9.5mm) lead length at $T_L=105^\circ\text{C}$	$I_{R(AV)}$	500							$\mu\text{A}$	
Typical Junction Capacitance (NOTE 2)	$C_J$	100							pF	
Typical Thermal Resistance (NOTE 1)	$R_{\theta JA}$	10							$^\circ\text{C}/\text{W}$	
Operating Temperature Range	$T_J$	(-55 to +150)							$^\circ\text{C}$	
Storage Temperature Range	$T_{STG}$	(-55 to +150)							$^\circ\text{C}$	

#### Notes:

1. Thermal Resistance from Junction to Ambient with 0.375" (9.5mm) lead length, PCB. mounted with 1.1" x 1.1" (30mm x 30mm) copper pads.
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V



# AXIAL SILASTIC GUARD JUNCTION STANDARD RECTIFIER

6A05G THRU 6A10G

VOLTAGE RANGE 50 to 1000 Volts  
CURRENT 6.0 Ampere

## RATING AND CHARACTERISTIC CURVES 6A05S THRU 6A10S

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

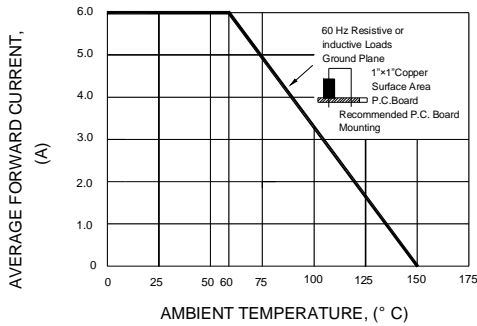


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

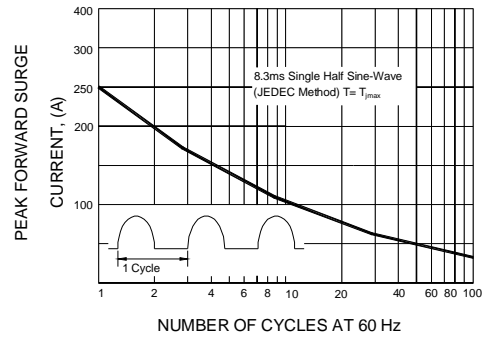


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

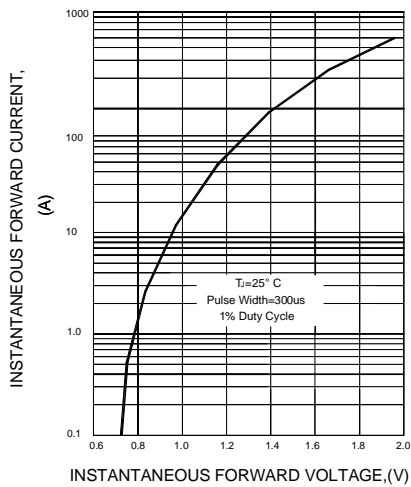


FIG.4-TYPICAL REVERSE CHARACTERISTICS

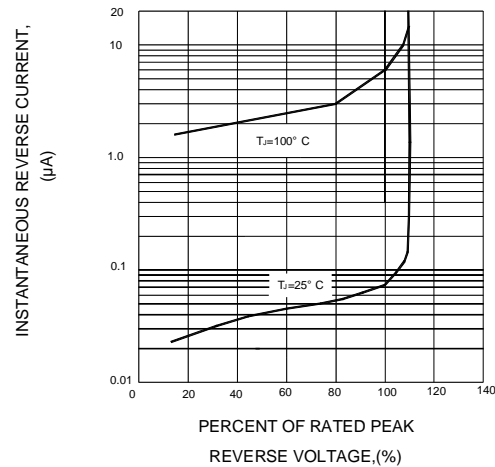


FIG.5-TYPICAL JUNCTION CAPACITANCE

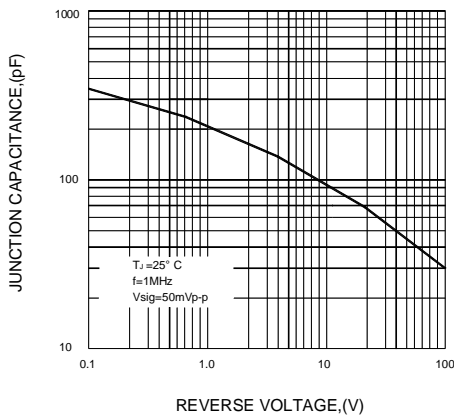


FIG.6-TYPICAL THERMAL RESISTANCE VS LEAD LENGTH

