



## AXIAL SILASTIC GUARD JUNCTION STANDARD RECTIFIER

**P600 THRU P600M**

**VOLTAGE RANGE  
CURRENT**

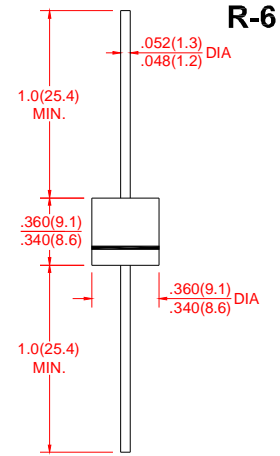
**50 to 1000 Volts  
6.0 Ampere**

### FEATURES

- Low coat construction
- Low forward voltage drop
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed:  
260°C/10 secods/.375”(9.5mm)lead length at 5 lbs(2.3kg) tension

### MECHANICAL DATA

- Case: Transfer molded plastic
- Epoxy: UL94V-O rate flame retardant
- Polarity: Color band denotes cathode end
- Lead: Plated axial lead, solderable per MIL-STD-202E method 208C
- Mounting position: Any
- Weight: 0.0070 ounce, 0.20 grams



Dimensions in inches and (millimeters)

### 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                 | P600A         | P600B | P600D | P600G | P600J | P600K | P600M | 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<br>0.375”(9.5mm) lead length at $T_A=60^\circ\text{C}$             | $I_{(AV)}$              | 6.0           |       |       |       |       |       |       | Amps                      |
| Peak Forward Surge Current<br>8.3mS single half sine wave superimposed on<br>rated load (JEDEC method)       | $I_{FSM}$               | 300           |       |       |       |       |       |       | Amps                      |
| Maximum Instantaneous Forward Voltage @ 6.0A   | $V_F$                   | 1.0           |       |       |       |       |       |       | Volts                     |
| Maximum DC Reverse Current at Rated<br>DC Blocking Voltage per element                                       | $T_A=25^\circ\text{C}$  | 10            |       |       |       |       |       |       | $\mu\text{A}$             |
|  | $T_A=100^\circ\text{C}$ | 1.0           |       |       |       |       |       |       |                           |
| Maximum Full Load Reverse Current, full cycle average<br>0.375”(9.5mm)lead length at $T_L=105^\circ\text{C}$ | $I_{R(AV)}$             | 150           |       |       |       |       |       |       | mA                        |
| Typical Junction Capacitance (Note 1)  | $C_J$                   | 15            |       |       |       |       |       |       | pF                        |
| Typical Thermal Resistance (Note 2)  | $R_{\theta JA}$         | 10            |       |       |       |       |       |       | $^\circ\text{C}/\text{W}$ |
| Operating Junction Temperature Range   | $T_J$                   | (-55 to +150) |       |       |       |       |       |       | $^\circ\text{C}$          |
| Storage Temperature Range  | $T_{STG}$               | (-55 to +150) |       |       |       |       |       |       | $^\circ\text{C}$          |

#### Notes:

1. Measured at 1.0MHz and Applied Reverse Voltage of 4.0V Volts.
2. Thermal Resistance from junction to Ambient at .375”(9.5mm)lead length, P.C.board mounted with 1.1”×1.1”(30×30mm)copper heatsink.



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