

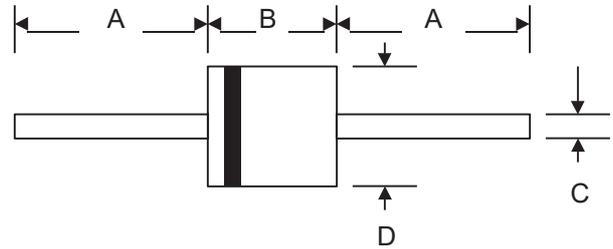
## GENERAL PURPOSE RECTIFIER DIODE

### Features

- Diffused Junction
- Low Forward Voltage Drop
- High Current Capability
- High Reliability
- High Surge Current Capability

### Mechanical Data

- Case: Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 2.1 grams (approx.)
- Mounting Position: Any
- Marking: Type Number
- Epoxy: UL 94V-O rate flame retardant



| P-600                |      |      |
|----------------------|------|------|
| Dim                  | Min  | Max  |
| A                    | 25.4 | —    |
| B                    | 8.60 | 9.10 |
| C                    | 1.20 | 1.30 |
| D                    | 8.60 | 9.10 |
| All Dimensions in mm |      |      |

### Maximum Ratings and Electrical Characteristics @ $T_A=25^\circ\text{C}$ unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

| Characteristic  | Symbol                          | P600A       | P600B | P600D | P600G | P600J | P600K | P600M | Unit                |
|---|---------------------------------|-------------|-------|-------|-------|-------|-------|-------|---------------------|
| Peak Repetitive Reverse Voltage<br>Working Peak Reverse Voltage<br>DC Blocking Voltage                                | $V_{RRM}$<br>$V_{RWM}$<br>$V_R$ | 50          | 100   | 200   | 400   | 600   | 800   | 1000  | V                   |
| RMS Reverse Voltage   | $V_{R(RMS)}$                    | 35          | 70    | 140   | 280   | 420   | 560   | 700   | V                   |
| Average Rectified Output Current<br>(Note 1)<br>@ $T_A = 60^\circ\text{C}$  | $I_O$                           | 6.0         |       |       |       |       |       |       | A                   |
| Non-Repetitive Peak Forward Surge Current<br>8.3ms Single half sine-wave superimposed on<br>rated load (JEDEC Method) | $I_{FSM}$                       | 400         |       |       |       |       |       |       | A                   |
| Forward Voltage<br>@ $I_F = 6.0\text{A}$  | $V_{FM}$                        | 1.0         |       |       |       |       |       |       | V                   |
| Peak Reverse Current<br>@ $T_A = 25^\circ\text{C}$<br>At Rated DC Blocking Voltage<br>@ $T_A = 100^\circ\text{C}$     | $I_{RM}$                        | 5.0<br>1.0  |       |       |       |       |       |       | $\mu\text{A}$<br>mA |
| Typical Junction Capacitance (Note 2)   | $C_j$                           | 150         |       |       |       |       |       |       | pF                  |
| Typical Thermal Resistance Junction to Ambient<br>(Note 1)  | $R_{\theta JA}$                 | 20          |       |       |       |       |       |       | K/W                 |
| Operating Temperature Range   | $T_j$                           | -50 to +150 |       |       |       |       |       |       | $^\circ\text{C}$    |
| Storage Temperature Range   | $T_{STG}$                       | -50 to +150 |       |       |       |       |       |       | $^\circ\text{C}$    |

#### \*Glass passivated forms are available upon request

Note: 1. Leads maintained at ambient temperature at a distance of 9.5mm from the case  
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

GENERAL PURPOSE RECTIFIER DIODE

RATING AND CHARACTERISTIC CURVES

P600A THRU P600M

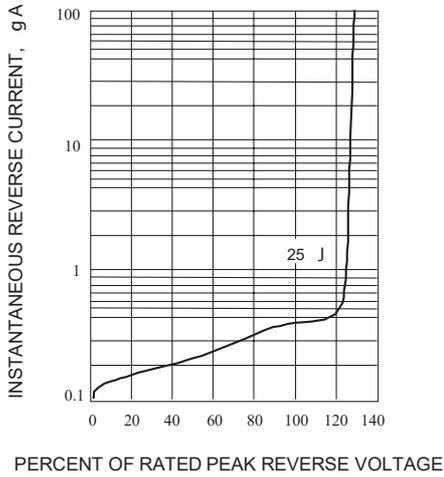


Fig. 1-TYPICAL REVERSE CHARACTERISTICS

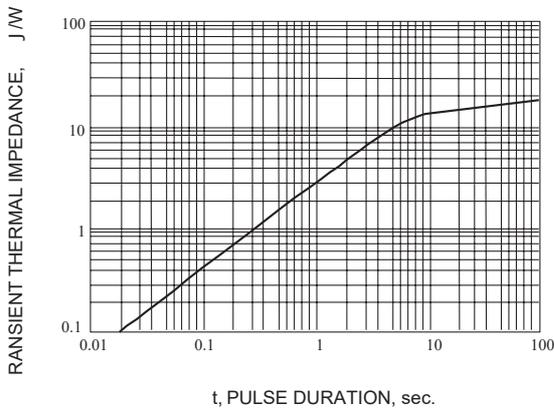


Fig. 3-TYPICAL TRANSIENT THERMAL IMPEDANCE

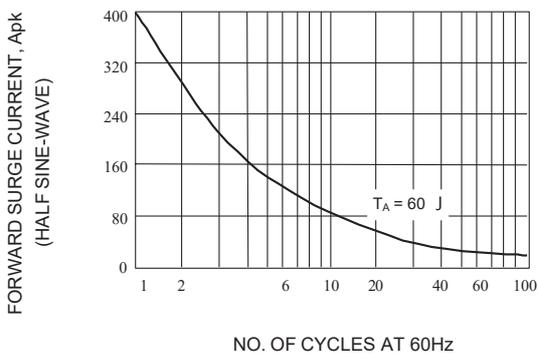


Fig. 5-MAXIMUM OVERLOAD SURGE CURRENT

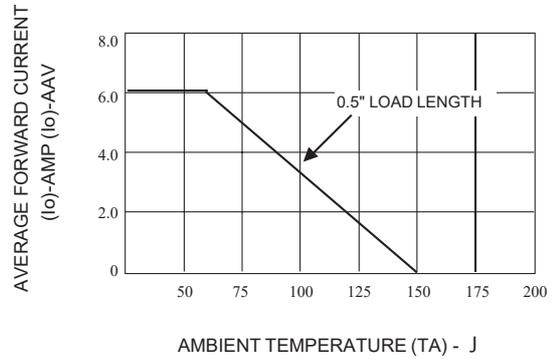


Fig. 2-FORWARD DERATING CURVE

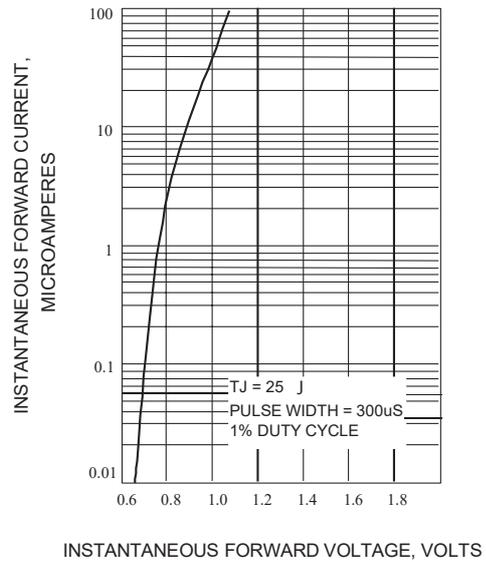


Fig. 4-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS