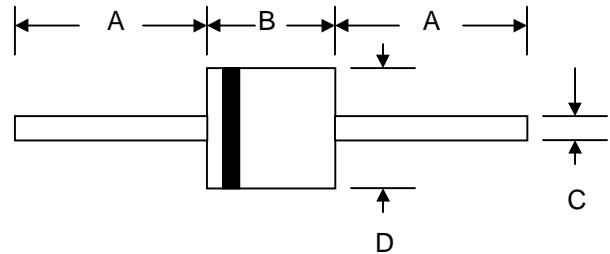


### Features

- 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  | $V_{RRM}$       |             |       |       |       |       |       |       |                  |
| Working Peak Reverse Voltage   | $V_{RWM}$       | 50          | 100   | 200   | 400   | 600   | 800   | 1000  | V                |
| DC Blocking Voltage  | $V_R$           |             |       |       |       |       |       |       |                  |
| RMS Reverse Voltage  | $V_{R(RMS)}$    | 35          | 70    | 140   | 280   | 420   | 560   | 700   | V                |
| Average Rectified Output Current (Note 1)  | $I_O$           | 6.0         |       |       |       |       |       |       | A                |
| @ $T_A = 60^\circ\text{C}$   |                 |             |       |       |       |       |       |       |                  |
| Non-Repetitive Peak Forward Surge Current<br>8.3ms Single half sine-wave superimposed on rated load (JEDEC Method) | $I_{FSM}$       | 400         |       |       |       |       |       |       | A                |
| Forward Voltage  | $V_{FM}$        | 1.0         |       |       |       |       |       |       | V                |
| @ $I_F = 6.0\text{A}$  |                 |             |       |       |       |       |       |       |                  |
| Peak Reverse Current   | $I_{RM}$        | 5.0         |       |       |       |       |       |       | $\mu\text{A}$    |
| @ $T_A = 25^\circ\text{C}$   |                 |             |       |       |       |       |       |       |                  |
| At Rated DC Blocking Voltage   | $I_{RM}$        | 1.0         |       |       |       |       |       |       | mA               |
| @ $T_A = 100^\circ\text{C}$  |                 |             |       |       |       |       |       |       |                  |
| Typical Junction Capacitance (Note 2)  | $C_j$           | 150         |       |       |       |       |       |       | pF               |
| Typical Thermal Resistance Junction to Ambient (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.

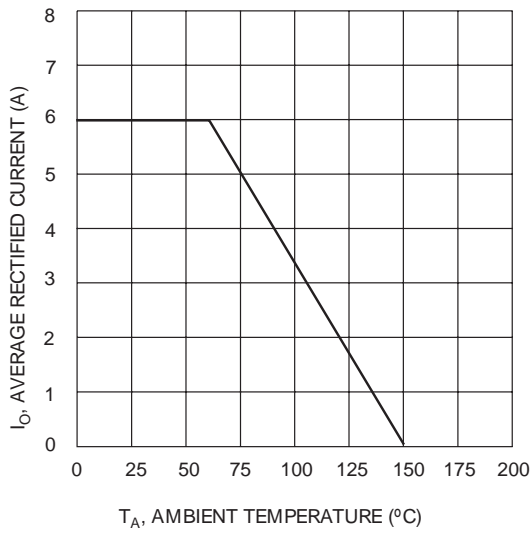


Fig. 1 Forward Current Derating Curve

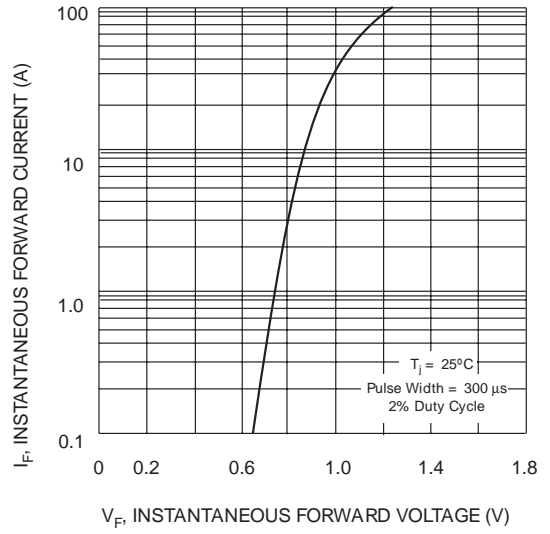


Fig. 2, Typical Forward Characteristics

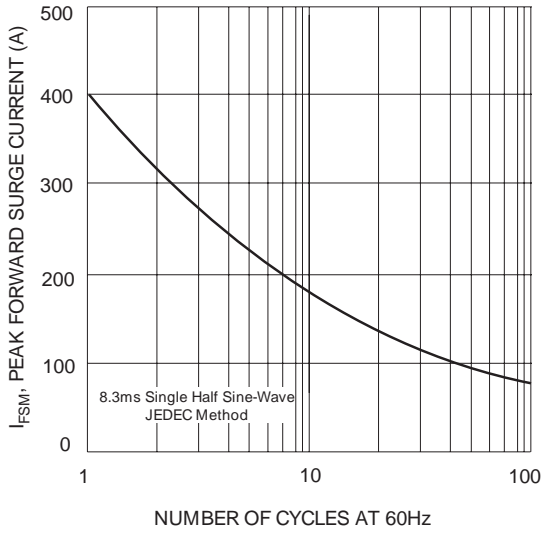


Fig. 3 Maximum Non-Repetitive Peak Forward Surge Current

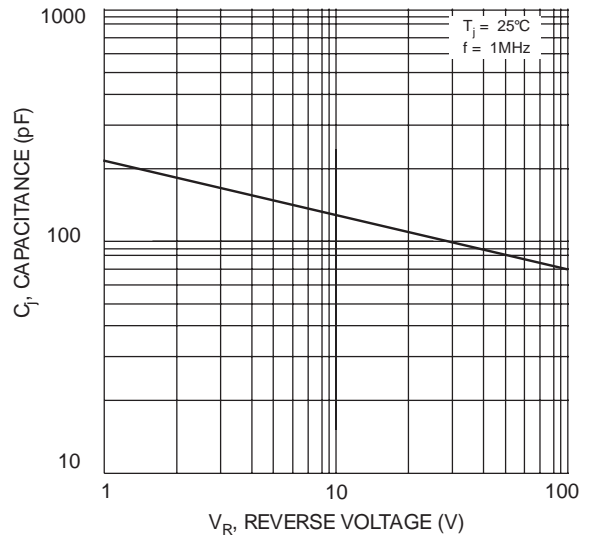


Fig. 4 Typical Junction Capacitance

## ORDERING INFORMATION

| Product No.♦    | Package Type | Shipping Quantity |
|-----------------|--------------|-------------------|
| <b>P600A-T3</b> | P-600        | 800/Tape & Reel   |
| P600A           | P-600        | 250 Units/Box     |
| <b>P600B-T3</b> | P-600        | 800/Tape & Reel   |
| P600B           | P-600        | 250 Units/Box     |
| <b>P600D-T3</b> | P-600        | 800/Tape & Reel   |
| P600D           | P-600        | 250 Units/Box     |
| <b>P600G-T3</b> | P-600        | 800/Tape & Reel   |
| P600G           | P-600        | 250 Units/Box     |
| <b>P600J-T3</b> | P-600        | 800/Tape & Reel   |
| P600J           | P-600        | 250 Units/Box     |
| <b>P600K-T3</b> | P-600        | 800/Tape & Reel   |
| P600K           | P-600        | 250 Units/Box     |
| <b>P600M-T3</b> | P-600        | 800/Tape & Reel   |
| P600M           | P-600        | 250 Units/Box     |

Products listed in **bold** are WTE **Preferred** devices.

♦T3 suffix refers to a 13" reel.

Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.

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