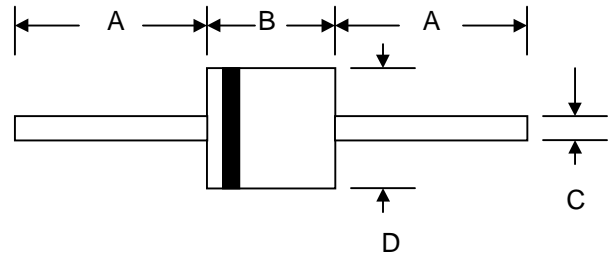


Features

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



Mechanical Data

- Case: P-600, 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
- **Lead Free: For RoHS / Lead Free Version, Add “-LF” Suffix to Part Number, See Page 4**

| 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} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Working Peak Reverse Voltage | V_{RWM} | | | | | | | | |
| 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) @ $T_A = 60^\circ\text{C}$ | I_O | 6.0 | | | | | | | A |
| Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method) | I_{FSM} | 400 | | | | | | | A |
| Forward Voltage @ $I_F = 6.0\text{A}$ | V_{FM} | 1.0 | | | | | | | V |
| Peak Reverse Current @ $T_A = 25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_A = 100^\circ\text{C}$ | I_{RM} | 5.0 1.0 | | | | | | | μA mA |
| Typical Junction Capacitance (Note 2) | C_j | 150 | | | | | | | pF |
| Typical Thermal Resistance Junction to Ambient (Note 1) | $R_{\theta JA}$ | 20 | | | | | | | $^\circ\text{C/W}$ |
| Operating Temperature Range | T_j | -50 to +150 | | | | | | | $^\circ\text{C}$ |
| Storage Temperature Range | T_{STG} | -50 to +150 | | | | | | | $^\circ\text{C}$ |

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.

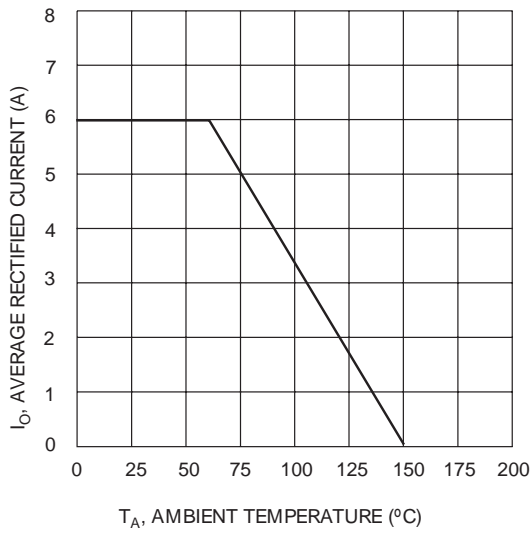


Fig. 1 Forward Current Derating Curve

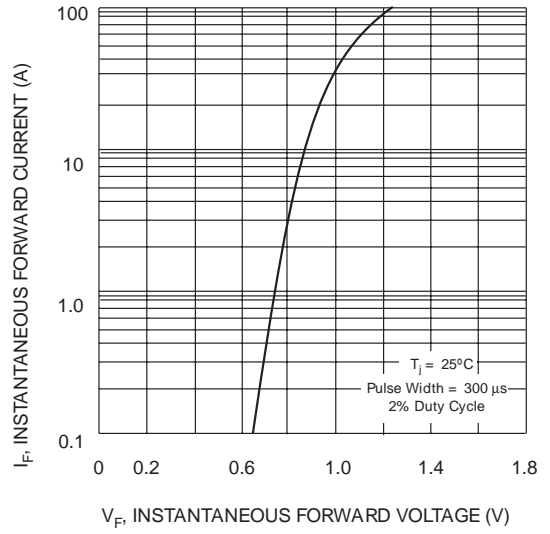


Fig. 2, Typical Forward Characteristics

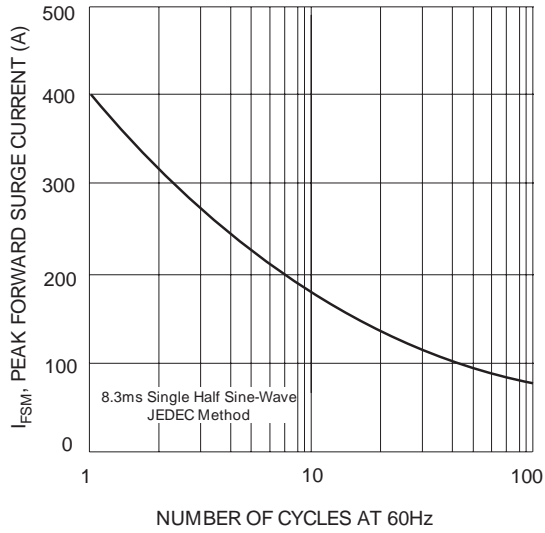


Fig. 3 Maximum Non-Repetitive Peak Forward Surge Current

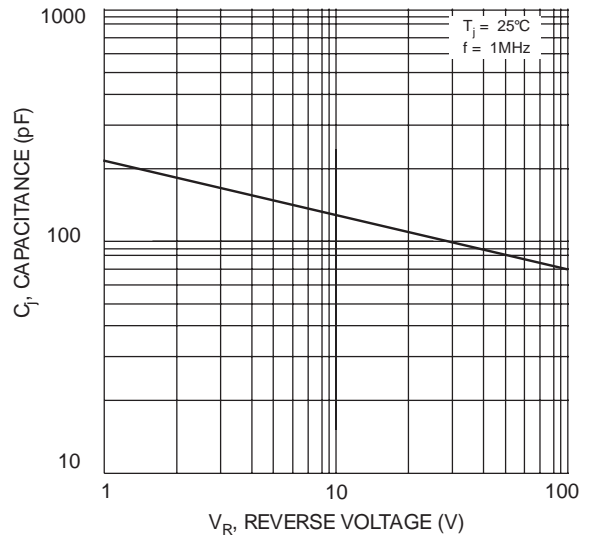
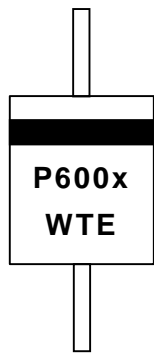


Fig. 4 Typical Junction Capacitance

MARKING INFORMATION



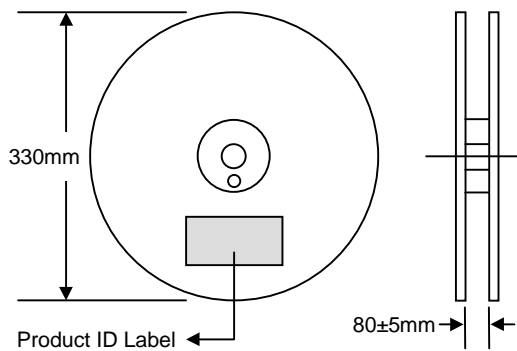
Cathode = Polarity Band
 P600x = Device Number
 x = A, B, D, G, J, K or M
 WTE = Manufacturer's Logo

TAPING SPECIFICATIONS

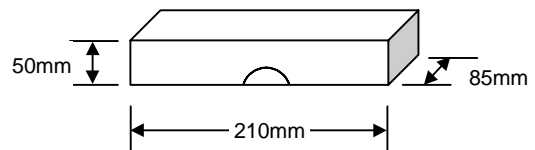


PACKAGING INFORMATION

TAPE & REEL



BULK



| Packaging | Reel Diameter / Box Size (mm) | Quantity (PCS) | Carton Size (mm) | Quantity (PCS) | Approx. Gross Weight (KG) |
|------------------------|-------------------------------|----------------|------------------|----------------|---------------------------|
| TAPE & REEL | 330 | 800 | 370 x 370 x 420 | 4,000 | 12.0 |
| BULK | 210 x 85 x 50 | 250 | 500 x 255 x 275 | 7,000 | 17.0 |

Note: 1. Paper reel, white or gray color. Core material: plastic or metal.
 2. Components are packed in accordance with EIA standard RS-296-E.

ORDERING INFORMATION

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

1. Products listed in **bold** are WTE **Preferred** devices.
2. Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.
3. **To order RoHS / Lead Free version (with Lead Free finish), add "-LF" suffix to part number above. For example, P600A-T3-LF.**

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WARNING: DO NOT USE IN LIFE SUPPORT EQUIPMENT. WTE power semiconductor products are not authorized for use as critical components in life support devices or systems without the express written approval.

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We power your everyday.