

P600A THRU P600M

HIGH CURRENT PLASTIC SILICON RECTIFIER VOLTAGE - 50 to 1000 Volts CURRENT - 6.0 Amperes

FEATURES

- High surge current capability
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O Utilizing Flame Retardant Epoxy Molding Compound
- Void-free plastic in a P600 package
- High current operation 6.0 Amperes @ $T_A=55\text{ }^{\circ}\text{C}$
- Exceeds environmental standards of MIL-S-19500/228

MECHANICAL DATA

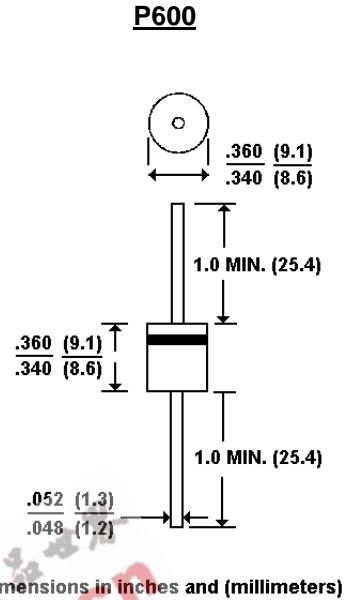
Case: Molded plastic, P600

Terminals: axial leads, solderable per MIL-STD-202, Method 208

Polarity: Color band denotes cathode

Mounting Position: Any

Weight: 0.07 ounce, 2.1 gram



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

*@ $T_A=25\text{ }^{\circ}\text{C}$ unless otherwise specified. Single phase, half-wave, 60 Hz, resistive or inductive load.

**All values except Maximum RMS Voltage are registered JEDEC parameters.

| | P600A | P600B | P600D | P600G | P600J | P600K | P600M | UNITS |
|--|-------------|-------|-------|-------|-------|-------|-------|--------------------------------|
| Maximum Recurrent Peak Reverse Voltage | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum RMS Voltage | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Maximum DC Blocking Voltage | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum Average Forward Rectified Current $T_A=55\text{ }^{\circ}\text{C}$ | 6.0 | | | | | | | I_{C}^{A} A |
| Maximum Overload Surge Current at 1 cycle (NOTE 1) | 400 | | | | | | | A |
| Maximum Forward Voltage at 6.0 ADC | 1.0 | | | | | | | V |
| Maximum DC Reverse Current @ $T_A=25\text{ }^{\circ}\text{C}$ | 10 | | | | | | | I_{g}^{A} |
| Rated DC Blocking Voltage @ $T_A=100\text{ }^{\circ}\text{C}$ | 1.0 | | | | | | | m^{ADC} |
| Typical Junction capacitance (Note 3) CJ | 150 | | | | | | | p^{F} |
| Typical Thermal Resistance (Note 2) R θ^{KJA} | 20.0 | | | | | | | $^{\circ}\text{C}/\text{W}$ |
| Typical Thermal Resistance (Note 2) R θ^{KJL} | 4.0 | | | | | | | $^{\circ}\text{C}/\text{W}$ |
| Operating Temperature Range | -55 to +150 | | | | | | | $^{\circ}\text{C}$ |
| Storage Temperature Range | -55 to +150 | | | | | | | $^{\circ}\text{C}$ |

NOTES:

1. Peak forward surge current, per 8.3ms single half-sine-wave superimposed on rated load(JECED method)
2. Thermal resistance from junction to ambient and from junction to lead at 0.375"(9.5mm) lead length P.C.B. mounted with 1.1x1.1"(30x30mm) copper pads
3. Measured at 1 MHZ and applied reverse voltage of 4.0 volts

RATING AND CHARACTERISTIC CURVES

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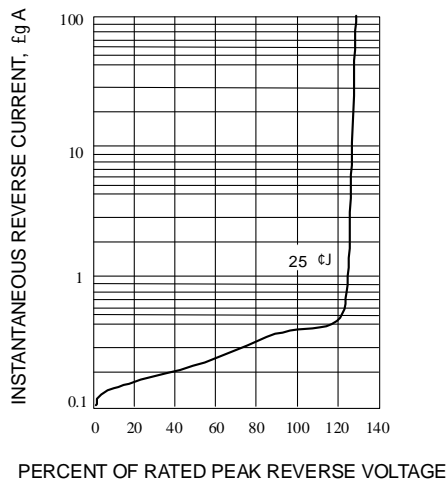


Fig. 1-TYPICAL REVERSE CHARACTERISTICS

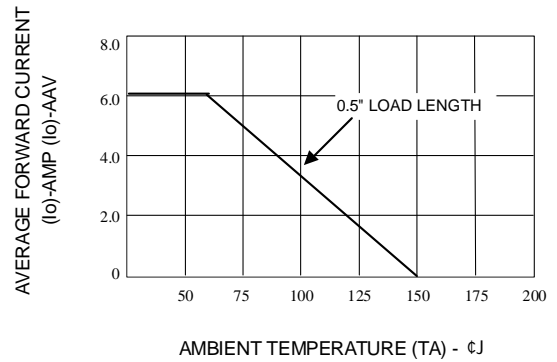


Fig. 2-FORWARD DERATING CURVE

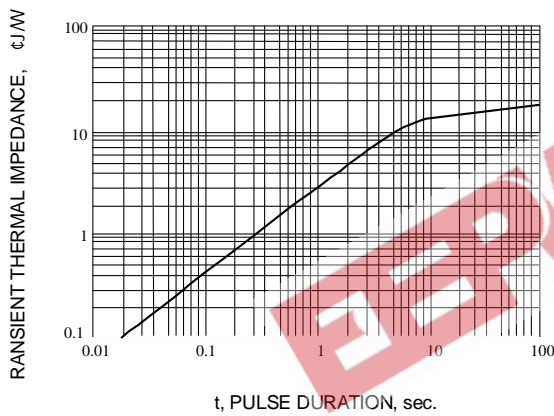


Fig. 3-TYPICAL TRANSIENT THERMAL IMPEDANCE

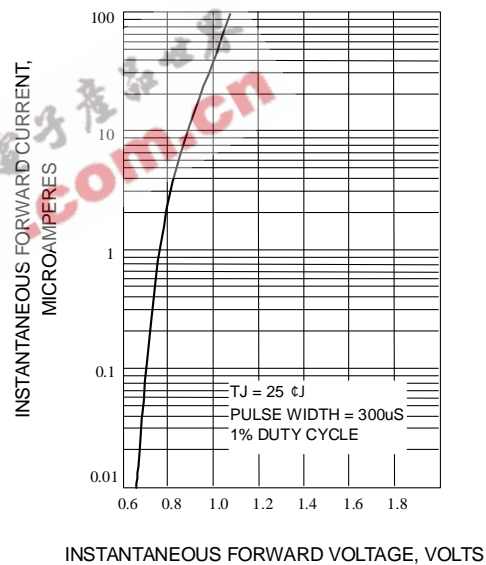


Fig. 4-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

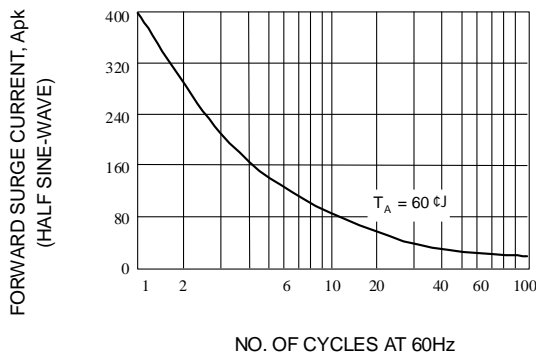


Fig. 5-MAXIMUM OVERLOAD SURGE CURRENT