

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

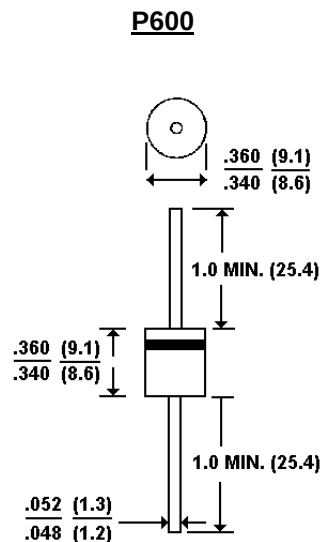
Case: Molded plastic, P600

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



Dimensions in inches and (millimeters)

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_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_{gA}
Rated DC Blocking Voltage @ $T_A=100\text{ }^{\circ}\text{C}$	1.0							mADC
Typical Junction capacitance (Note 3) C _J	150							pF
Typical Thermal Resistance (Note 2) R _{θJA}	20.0							$^{\circ}\text{C/W}$
Typical Thermal Resistance (Note 2) R _{θJL}	4.0							$^{\circ}\text{C/W}$
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 1.1×1.1"(30×30mm) copper pads
3. Measured at 1 MHZ and applied reverse voltage of 4.0 volts

RATING AND CHARACTERISTIC CURVES

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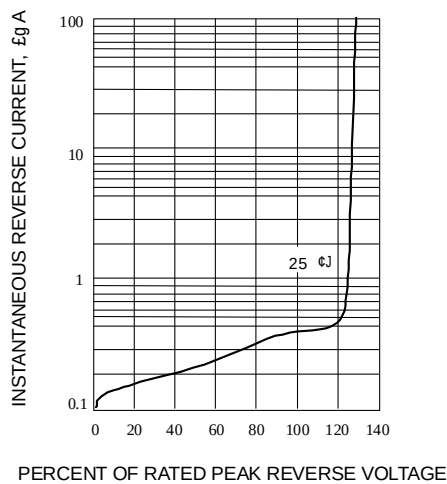


Fig. 1-TYPICAL REVERSE CHARACTERISTICS

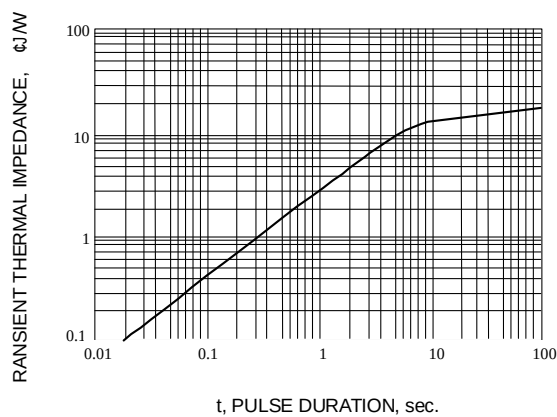


Fig. 3-TYPICAL TRANSIENT THERMAL IMPEDANCE

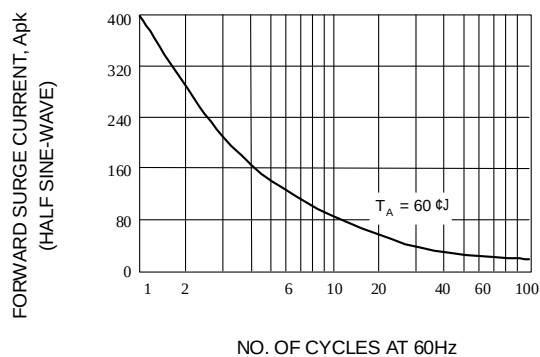


Fig. 5-MAXIMUM OVERLOAD SURGE CURRENT

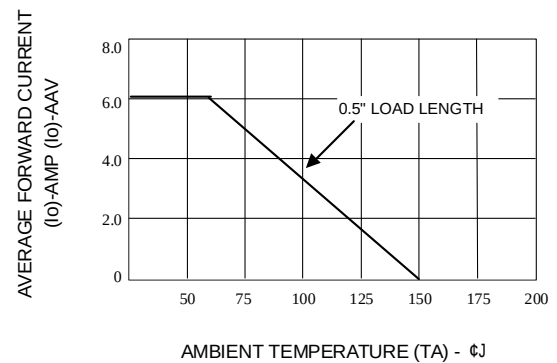


Fig. 2-FORWARD DERATING CURVE

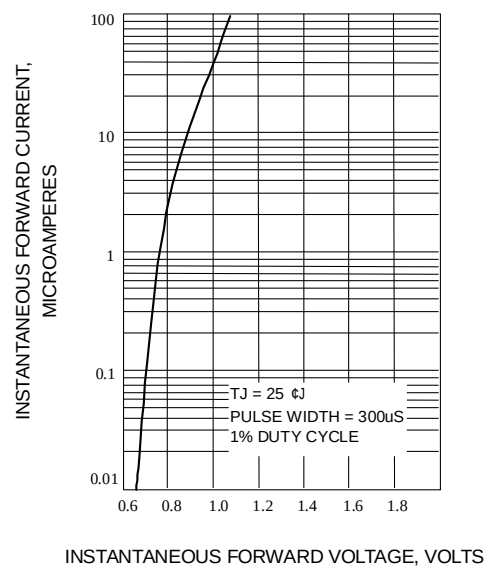


Fig. 4-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS