



# P600A~P600M

## HIGH CURRENT PLASTIC SILICON RECTIFIERS

**VOLTAGE** 50 to 1000 Volts **CURRENT** 6.0 Amperes

**P-600**

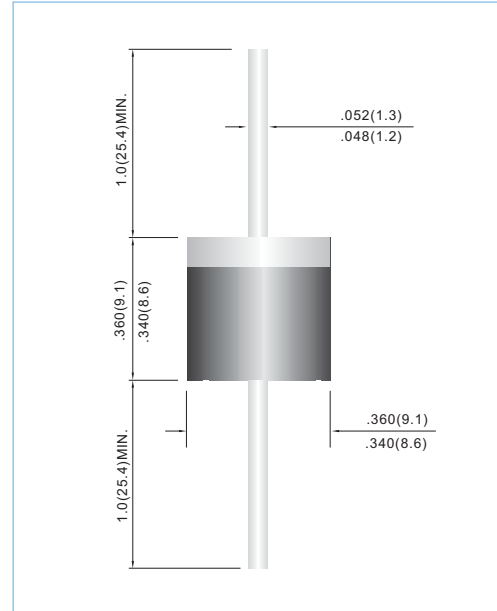
Unit: inch(mm)

### FEATURES

- Plastic package has Underwriters Laboratories Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound.
- High current capability.
- Exceeds environmental standards of MIL-S-19500/228
- Low leakage.
- In compliance with EU RoHS 2002/95/EC directives

### MECHANICAL DATA

- Case: Molded plastic, P-600
- Terminals: Axial leads, solderable to MIL-STD-750, Method 2026
- Polarity: Color Band denotes cathode
- Mounting Position: Any
- Weight: 0.07 ounce, 2.1 gram



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.  
Resistive or inductive load, 60Hz.

PARAMETER	SYMBOL	P600A	P600B	P600D	P600G	P600J	P600K	P600M	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum Average Forward Current .375" (9.5mm) lead length at $T_A=55^\circ\text{C}$	$I_{F(AV)}$	6.0							A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load (JEDEC method) (Note 1)	$I_{FSM}$	400							A
Maximum Forward Voltage at 6.0A	$V_F$	1.0							V
Maximum DC Reverse Current $T_J=25^\circ\text{C}$ at Rated DC Blocking Voltage $T_J=100^\circ\text{C}$	$I_R$	10 1000							$\mu\text{A}$
Typical Junction capacitance (Note 2)	$C_J$	150							pF
Typical Thermal Resistance (Note 3)	$R_{\theta JA}$ $R_{\theta JL}$	20 4.0							$^\circ\text{C} / \text{W}$
Operating and Storage Temperature Range	$T_J, T_{STG}$	-55 TO +150							$^\circ\text{C}$

### NOTES:

1. Peak forward surge current, per 8.3ms single half- sine-wave superimposed on rated load (JEDEC method)
2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.
3. Thermal resistance from junction to ambient and from junction to lead at 0.375" (9.5mm) P.C.B. mounted with 1.0 x 1.0 ( 30 x 30mm ) copper pads.



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## RATING AND CHARACTERISTIC CURVES

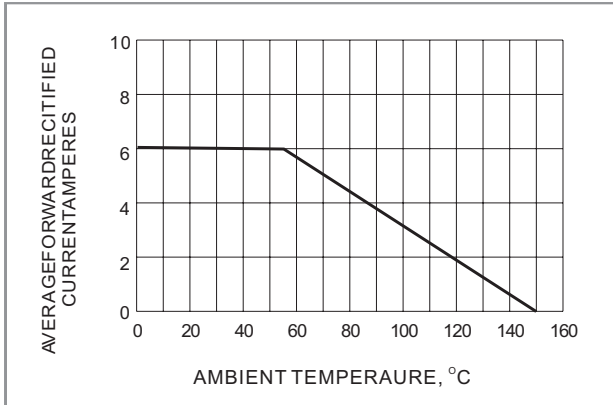


Fig.1- FORWARD CURRENT DERATING CURVE

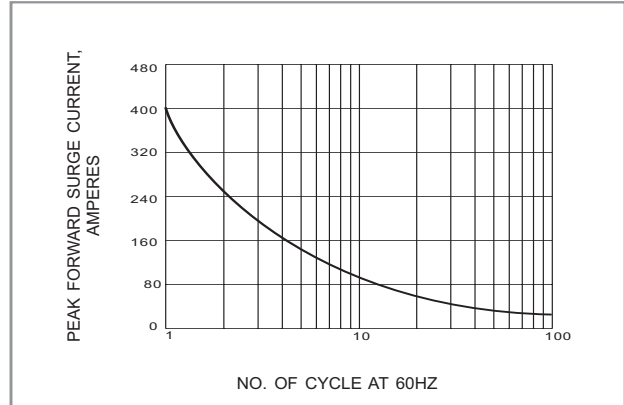


Fig.2- MAXIMUM FORWARD SURGE CURRENT

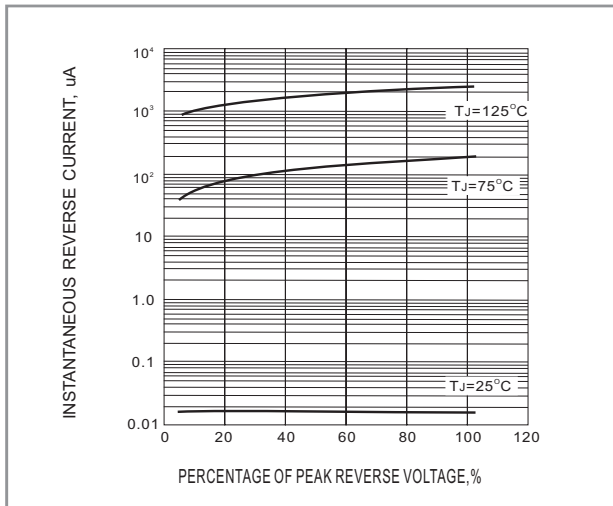


Fig.3- TYPICAL REVERSE CHARACTERISTIC

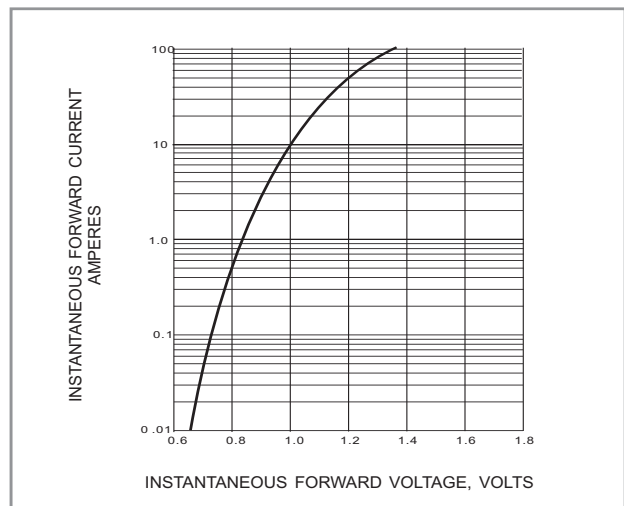


Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

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