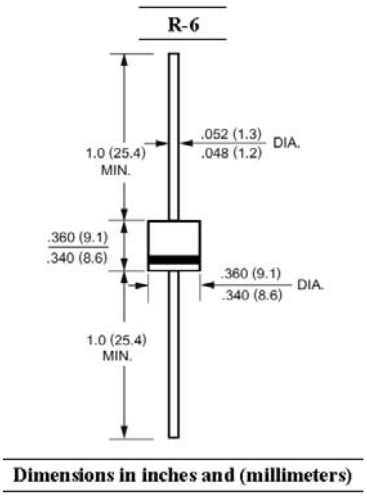
P600A THRU P600M

PLASTIC SILICON RECTIFIERS
Reverse Voltage - 50 to 1000 V
Forward Current - 6 A



Dimensions in inches and (millimeters)

Features
- Low forward voltage
- High current capability
- High reliability
- High forward surge current capability

Mechanical Data
- **Case:** Molded plastic, R-6
- **Epoxy:** UL 94V-0 rate flame retardant
- **Lead:** Axial leads, solderable per MIL-STD -202, method 208 guaranteed
- **Polarity:** Color band denotes cathode
- **Mounting Position:** Any

Maximum Ratings and Electrical Characteristics
Ratings at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Parameter	Symbols	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 Rectified Current at 0.375" (9.5 mm) Lead Length, T_A = 60 °C	$I_{F(AV)}$	6							A
Peak Forward Surge Current 8.3 ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	400							A
Maximum Forward Voltage at 6 A	V_F	1							V
Maximum Reverse Current at T_A = 25 °C at Rated DC Blocking Voltage at T_A = 100 °C	I_R	5 1000							μA
Typical Junction Capacitance [1]	C_J	150							pF
Typical Thermal Resistance [2]	$R_{\theta JA}$	10							°C/W
Operating and Storage Temperature Range	T_J ,T_S	- 55 to + 150							°C

[1] Measured at 1 MHz and applied reverse voltage of 4 V D.C.

[2] Thermal resistance from junction to ambient at 0.375" (9.5 mm) lead length P.C.B. Mounted with 1.1 X 1.1 (30 X 30 mm) copper pads.

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

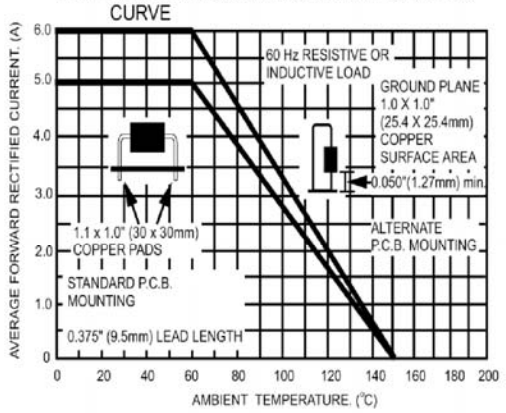


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

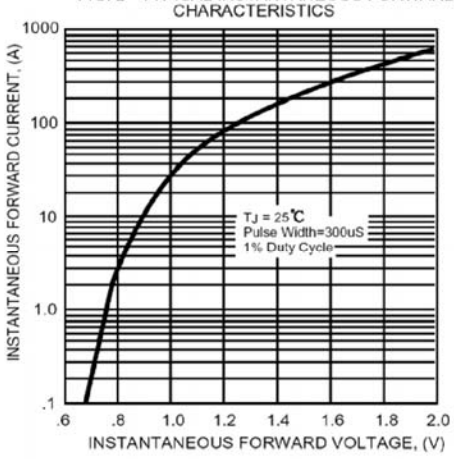


FIG. 3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

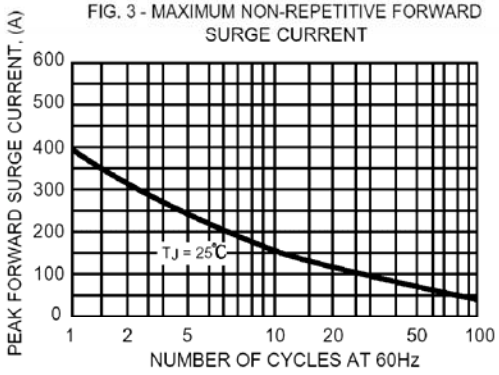


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

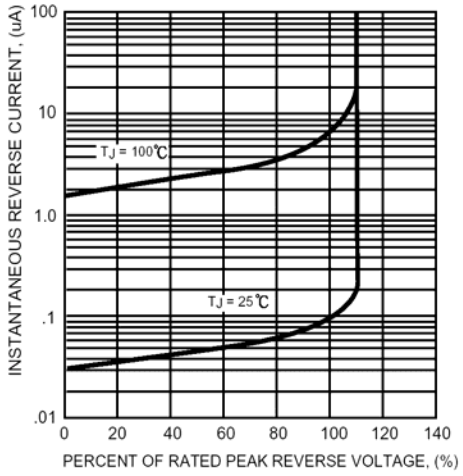


FIG. 5 - TYPICAL THERMAL RESISTANCE VS LEAD LENGTH