



P600A thru P600M

6.0 Amps. General Purpose Plastic Rectifiers
Voltage Range 50 to 1000 Volts Forward Current 6.0 Amperes

Features

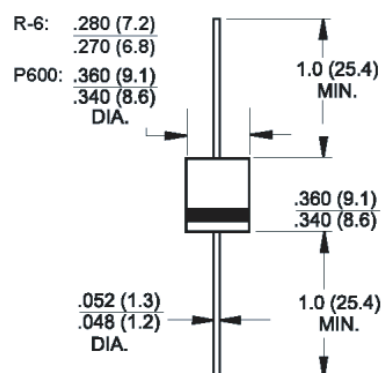
Plastic package has Underwriters Laboratories Flammability Classification 94V-0
High forward current capability
Construction utilizes void-free molded plastic technique
High surge current capability



Mechanical Data

Case: Void-free molded plastic body
Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026
High temperature soldering guaranteed:
250°C/10 seconds, 0.375" (9.5mm) lead length,
5 lbs. (2.3kg) tension
Polarity: Color band denotes cathode end
Mounting Position: Any
Weight: 0.074 ounce 2.1 grams

R-6 or P600



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Parameters	Symbol	P600A	P600B	P600D	P600G	P600J	60/4527 P600K	P600M	Units
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum average forward rectified current at $T_A=60^\circ\text{C}$, 0.375" (9.5mm) lead length (Fig. 1) $T_A=60^\circ\text{C}$, 0.125" (3.18mm) lead length (Fig. 2)	$I_{F(AV)}$	6.0 22.0							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	400.0							Amps
Maximum instantaneous forward voltage at: 6.0A 100A	V_F	0.90 1.30						1.0 1.4	Volts
Maximum DC reverse current at rated DC blocking voltage $T_A=25^\circ\text{C}$ $T_A=100^\circ\text{C}$	I_R	5.0 1.0							μA mA
Typical reverse recovery time at $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{tr}=0.25\text{A}$	t_{rr}	2.5							μs
Typical junction capacitance at 4.0V, 1MHz	C_J	150							pF
Typical thermal resistance (Note 1)	R_{JA} R_{JL}	20.0 4.0							$^\circ\text{C}/\text{W}$
Operating junction and storage temperature range	T_J, T_{STG}	-50 to +150							$^\circ\text{C}$

Notes: 1. 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" x 1.1" (30 x 30mm) copper pads

RATINGS AND CHARACTERISTIC CURVES

($T_A = 25^\circ\text{C}$ unless otherwise noted)

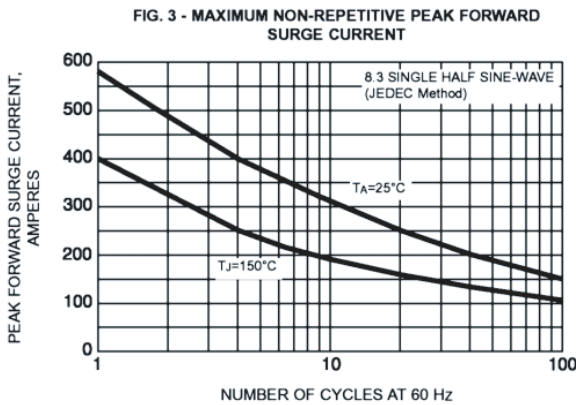
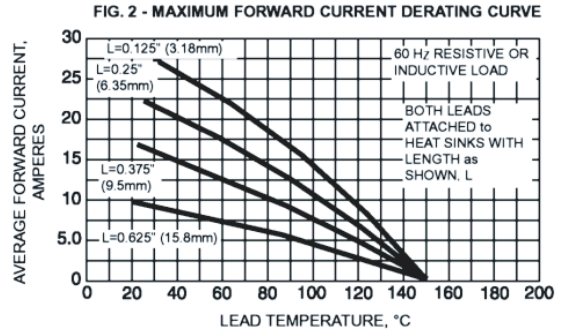
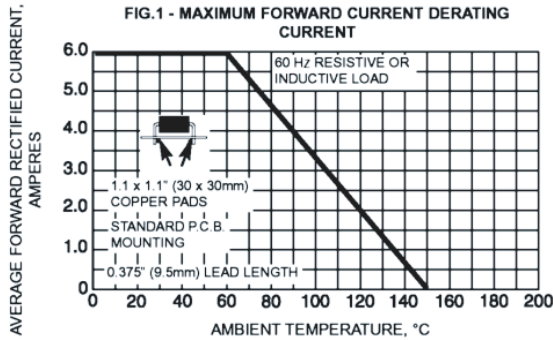


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

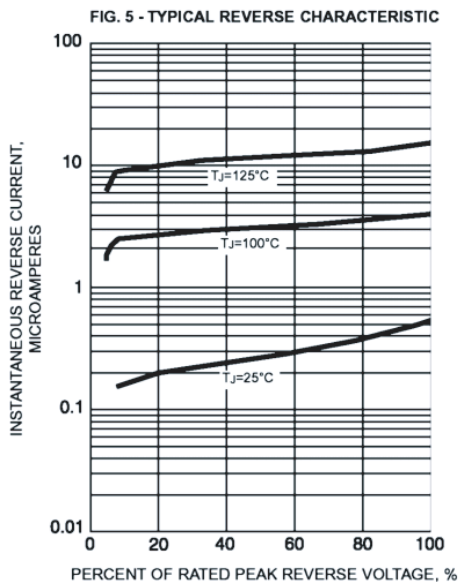
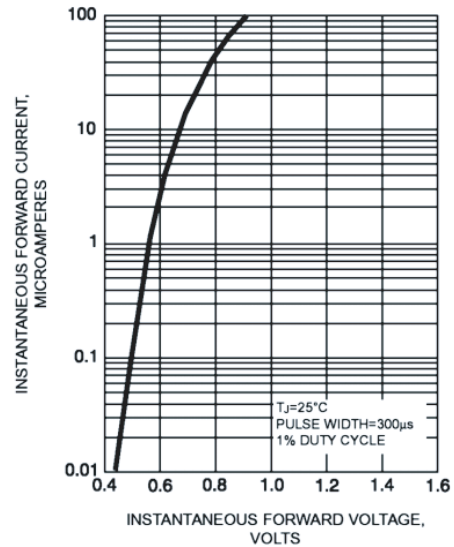


FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE

