



# P600A thru P600M

General Purpose Plastic Rectifiers  
Reverse Voltage 50 to 1000 Volts Forward Current 6.0 Amperes

## Features

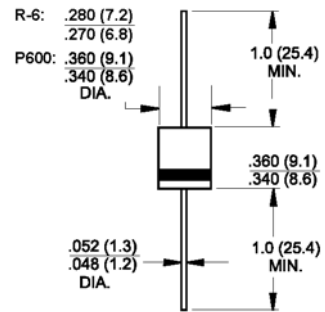
- ◆ Plastic package has Underwriters Laboratories Flammability Classification 94V-0
- ◆ High forward current capability
- ◆ Construction utilizes void-free molded plastic technique
- ◆ High surge current capability
- ◆  $T_J$  is 150°C (Max.) and  $T_{STG}$  is 175°C (Max.) with PI glue



R-6 or P600

## 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



Dimensions in inches and (millimeters)

## Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbols	P600A	P600B	P600D	P600G	P600J	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						uA mA	
Typical reverse recovery time at $I_F=0.5\text{A}$ , $I_R=1.0\text{A}$ , $I_T=0.25\text{A}$	$t_{rr}$	1.0						uS	
Typical junction capacitance at 4.0V, 1MHz	$C_J$	150						pF	
Typical thermal resistance (Note 1)	$R_{\theta JA}$ $R_{\theta JL}$	20.0 4.0						°C/W	
Operating junction temperature range	$T_J$	-55 to +125						°C	
Storage temperature range	$T_{STG}$	-55 to +150						°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)

