

## P600A thru P600M

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

#### **Features**

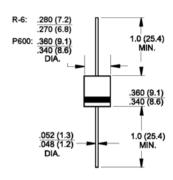
- Plastic package has Underwriters Laboratories Flammability Classification 94V-0
- High forward current capability
- ◆ Construction utilizes void-free molded plastic technique
- ♦ High surge current capability
- ◆ T<sub>⊥</sub> is 150°C (Max.) and T<sub>STG</sub> is 175°C (Max.) with PI glue



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**

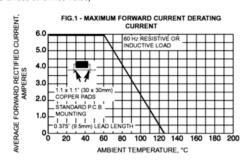
Ratings at 25°C ambient temperature unless otherwise specified.

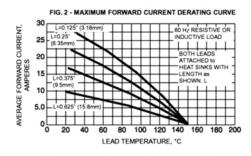
Parameter	Symbols	P600A	P600B	P600D	P600G	P600J	P600K	P600M	Units
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	Volts
Maximum average forward rectified current at T <sub>A</sub> =60°C, 0.375° (9.5mm) lead length (Fig. 1) T <sub>L</sub> =60°C, 0.125" (3.18mm) lead length (Fig. 2)	I <sub>F(AV)</sub>	6.0 22.0							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	400.0							Amps
Maximum instantaneous forward voltage at: 6.0A 100A	V <sub>F</sub>	0.90 1.0 1.30 1.4							Volts
Maximum DC reverse current $T_A = 25^{\circ}\text{C}$ at rated DC blocking voltage $T_A = 100^{\circ}\text{C}$	I <sub>R</sub>	5.0 1.0							uA mA
Typical reverse recovery time at I <sub>F</sub> =0.5A, I <sub>R</sub> =1.0A, I <sub>R</sub> =0.25A	t <sub>m</sub>	1.0							uS
Typical junction capacitance at 4.0V, 1MHz	C <sub>1</sub>	150							pF
Typical thermal resistance (Note 1)	$R_{_{\theta JA}} \ R_{_{\theta JL}}$	20.0 4.0							°C/W
Operating junction temperature range	T,	-55 to +125							°C
Storage temperature range	T <sub>stg</sub>	-55 to +150							°C

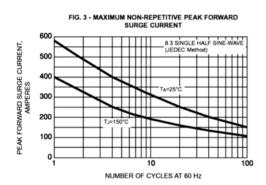
Notes: 1. Thermal resistance from junction to ambient and from junction to lead at 0.375" (9.5mm) lead length, P.C.B. mounted with 1.1" x 1.1" (30 x 30mm) copper pads

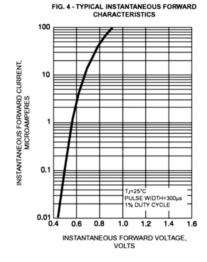
### **RATINGS AND CHARACTERISTIC CURVES**

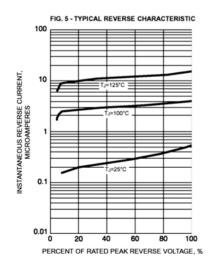
(T, = 25°C unless otherwise noted)

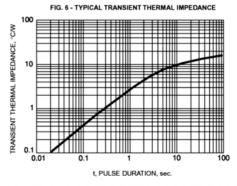












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