

**6.0 A Plastic Silicon Rectifier**  
Rectifier Reverse Voltage 50 to 1000V

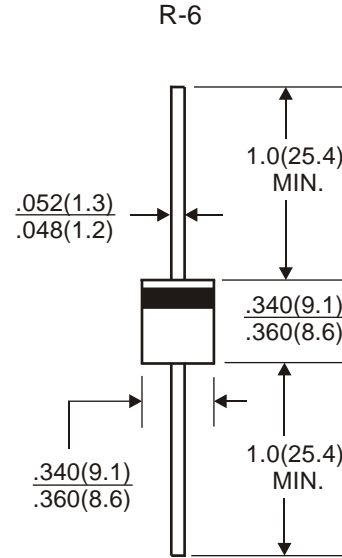


**Features**

- Diffused junction
- High current capability and low Forward Voltage Drop
- Surge overload rating to 400A peak
- Low reverse leakage current
- Plastic material has UL flammability classification 94V-0

**Mechanical Data**

Case: Molded plastic  
 Terminals: Solder plated solderable per MIL-STD-202, Method 208  
 Polarity: Cathode band  
 Mounting Position: Any  
 Weight: 2.1 grams (approx)



All dimensions inches and (millimeters)

**Maximum Ratings & Thermal Characteristics**

Rating at 25°C ambient temperature unless otherwise specified, Resistive or Inductive load, 60 Hz.  
 For Capacitive load derate current by 20%.

Parameter	Symbol	P600A	P600B	P600D	P600G	P600J	P600K	P600M	unit
Maximum repetitive peak reverse voltage	VRRM	50	100	200	400	600	800	1000	V
Maximum RMS bridge input voltage	VRMS	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	VDC	50	100	200	400	600	800	1000	V
Maximum average forward rectified output current at TA=75°C	IF(AV)	6.0							A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	IFSM	400							A
Typical thermal resistance	ReJA	10							°C/W
Typical junction capacitance	Cj	150							pF
Operating junction and storage temperature range	TJ, TSTG	-55 to + 175							°C

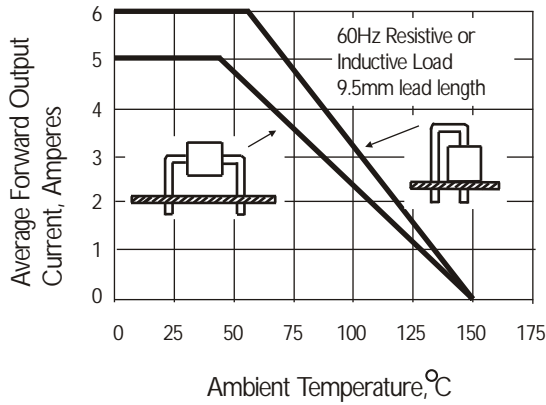
**Electrical Characteristics**

Rating at 25°C ambient temperature unless otherwise specified. Resistive or Inductive load, 60Hz.  
 For Capacitive load derate by 20 %.

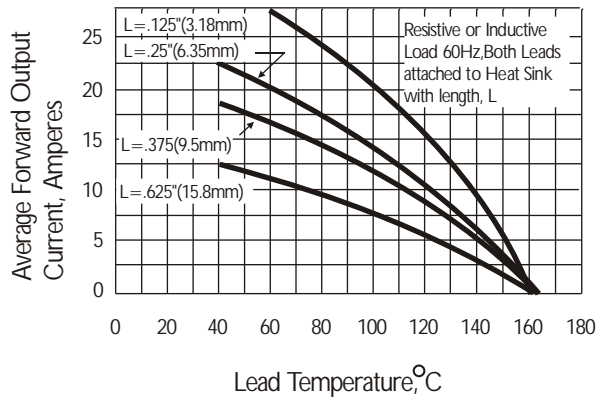
Parameter	Symbol	P600A	P600B	P600D	P600G	P600J	P600K	P600M	Unit
Maximum instantaneous forward voltage drop per leg at 6.0A	VF	1.0							V
Maximum DC reverse current at rated DC blocking voltage per element	IR	5.0 50.0							μA

# Rating and Characteristic Curves ( $T_A=25^{\circ}\text{C}$ Unless otherwise noted ) P600A thru P600M

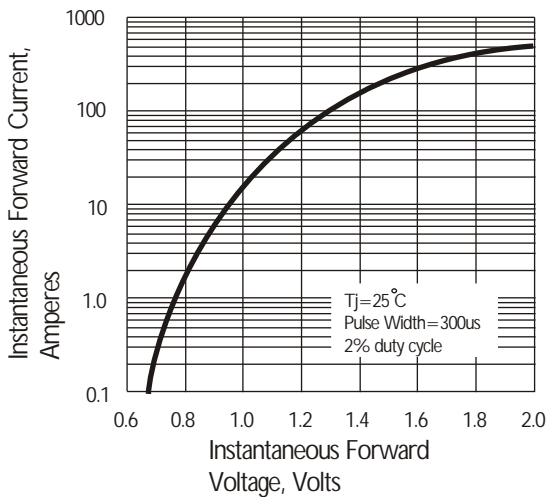
**Fig. 1 Derating Curve for Output Rectified Current**



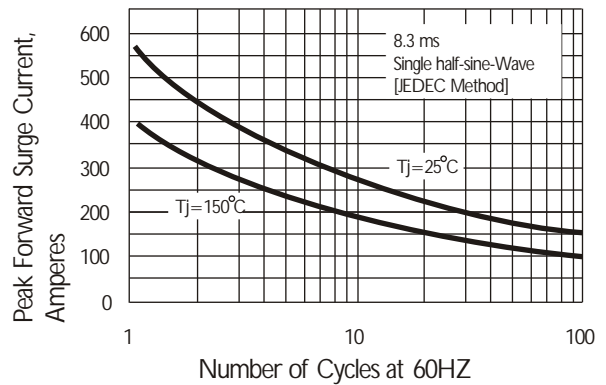
**Fig. 2 Derating Curve for Output Rectified Current**



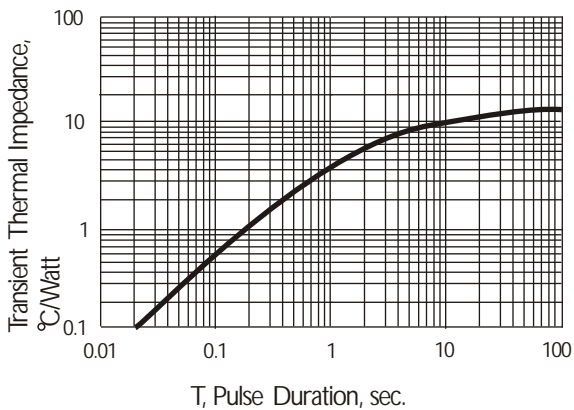
**Fig. 3 Typical Instantaneous Forward Characteristics**



**Fig. 4 Peak Forward Surge Current**



**Fig. 5 Typical Transient Thermal Impedance**



**Fig. 6 Typical Reverse Characteristics**

