

## 6.0 Amp Silicon Rectifiers

**(Pb)** Lead(Pb)-Free

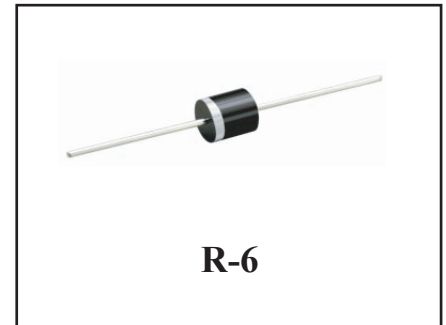
### Features:

- \* Low forward voltage drop
- \* High current capability
- \* High reliability
- \* High surge current capability

### Mechanical Data:

- \* Case : Molded plastic.
- \* Epoxy : UL 94V-0 rate flame retardant.
- \* Lead : Axial leads, solderable per MIL-STD-202, method 208 guaranteed.
- \* Polarity : Color band denotes cathode end
- \* Mounting position : Any
- \* Weight : 1.65 grams

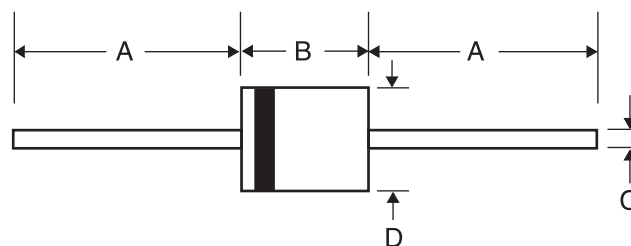
**REVERSE VOLTAGE**  
50 TO 1000 VOLTS  
**FORWARD CURRENT**  
6.0 AMPERES



## R-6 Outline Dimensions

Unit:mm

### Axial Device (Through-Hole)



A		B		C		D	
Min	Max	Min	Max	Min	Max	Min	Max
25.4	-	8.6	9.1	1.2	1.3	8.6	9.1

## Maximum Ratings and Electrical Characteristics

Rating 25°C Ambient Temperature Unless Otherwise Specified.

Single Phase Half Wave, 60Hz , Resistive or Inductive Load.

For Capacitive Load, Derate Current by 20%.

Characteristics	Symbol	P600A	P600B	P600D	P600G	P600J	P600K	P600M	Unit
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 .375"(9.5mm) Lead length at $T_A=60^\circ\text{C}$	$I_{F(AV)}$	6.0							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	$I_{FSM}$	400							A
Maximum Instantaneous at 6.0A DC	$V_F$	0.95							V
Maximum DC Reverse Current @ $T_j=25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_j=100^\circ\text{C}$	$I_R$	10.0 400							$\mu\text{A}$
Typical Junction Capacitance (Note 1)	$C_J$	100							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	10							$^\circ\text{C}/\text{W}$
Operating Temperature Range	$T_J$	-65 to +175							$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-65 to +175							$^\circ\text{C}$

NOTES: 1. Measured at 1.0MHz applied reverse voltage of 4.0V D.C.

2. Thermal Resistance from Junction to Ambient .375"(9.5mm) lead length.

RATING AND CHARACTERISTIC CURVES

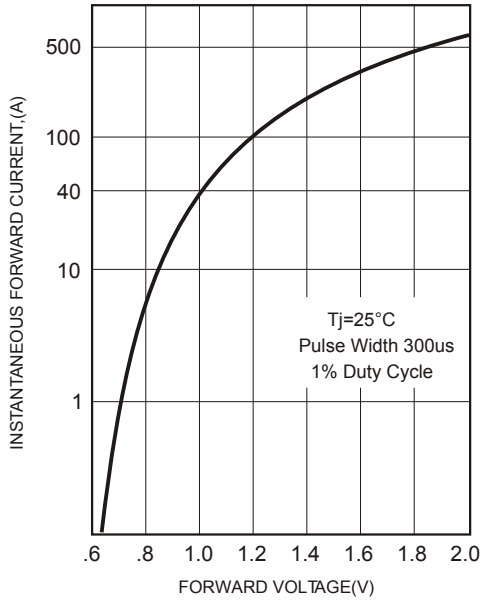


FIG.1-TYPICAL FORWARD CHARACTERISTICS

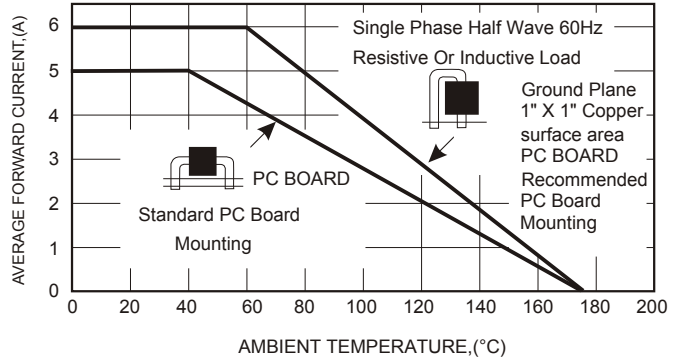


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

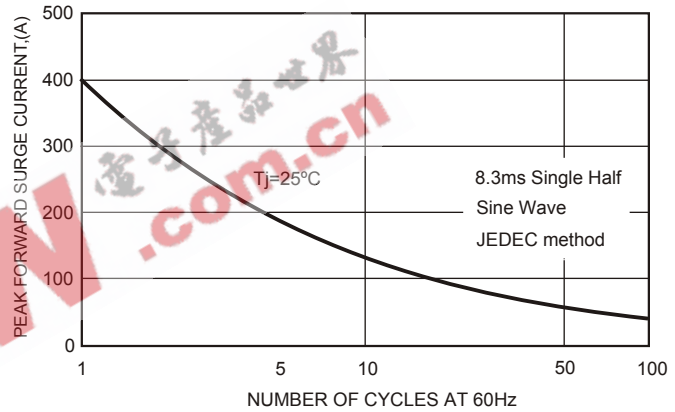


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

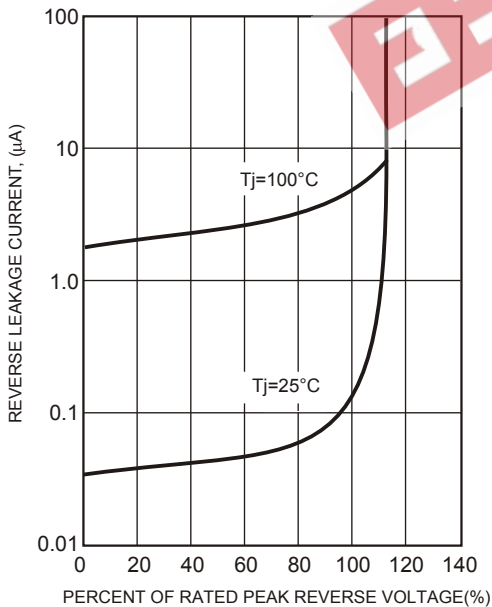


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

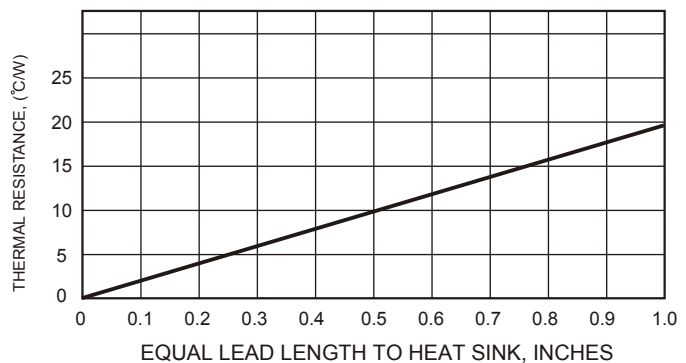


FIG.5 - TYPICAL THERMAL RESISTANCE VS. LEAD LENGTH