



# P600A - P600M

**PRV : 50 - 1000 Volts**  
**Io : 6 Amperes**

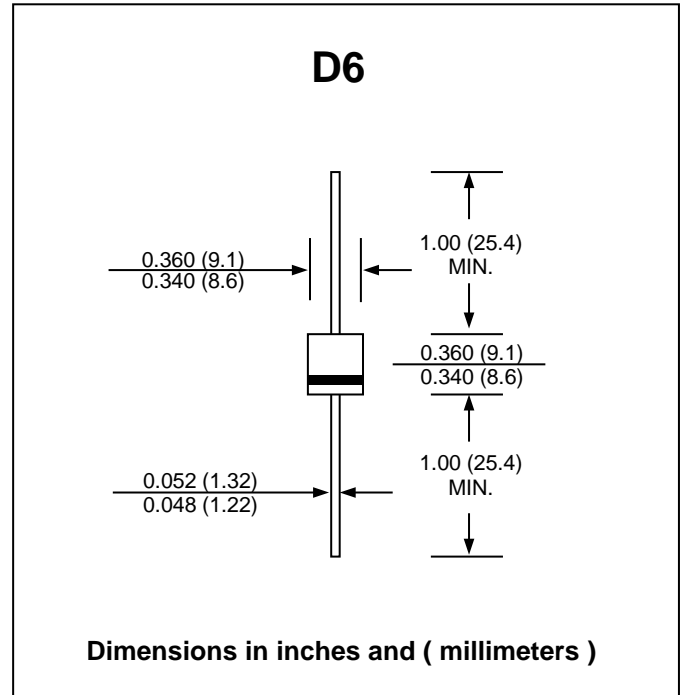
## FEATURES :

- \* High current capability
- \* High surge current capability
- \* High reliability
- \* Low reverse current
- \* Low forward voltage drop
- \* **Pb / RoHS Free**

## MECHANICAL DATA :

- \* Case : Void-free molded plastic body
- \* Epoxy : UL94V-0 rate flame retardant
- \* Lead : Axial lead solderable per MIL-STD-202, Method 208 guaranteed
- \* Polarity : Color band denotes cathode end
- \* Mounting position : Any
- \* Weight : 2.1 grams

## SILICON RECTIFIER DIODES



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.

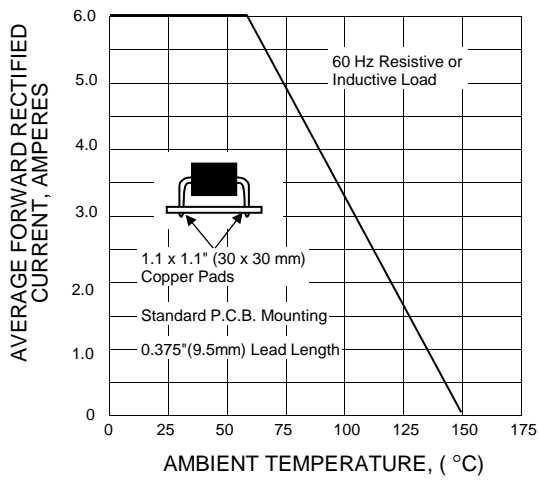
RATING	SYMBOL	P600A	P600B	P600D	P600G	P600J	P600K	P600M	UNIT
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum Average Forward Current 0.375"(9.5mm) Lead Length $T_a = 60\text{ }^\circ\text{C}$	$I_{F(AV)}$	6.0							A
Peak Forward Surge Current 8.3ms Single half sine wave Superimposed on rated load (JEDEC Method)	$I_{FSM}$	300							A
Maximum Instantaneous Forward Voltage at $I_F = 6\text{ A}$	$V_F$	1.0							V
Maximum DC Reverse Current $T_a = 25\text{ }^\circ\text{C}$ at rated DC Blocking Voltage $T_a = 100\text{ }^\circ\text{C}$	$I_R$	5.0							$\mu\text{A}$
	$I_{R(H)}$	1.0							mA
Typical junction capacitance at 4.0V, 1MHz	$C_J$	150							pF
Typical Thermal Resistance (1)	$R_{\theta JA}$	20							$^\circ\text{C/W}$
Typical reverse recovery time (2)	$T_{rr}$	2.5							$\mu\text{s}$
Junction Temperature Range	$T_J$	- 50 to + 150							$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	- 50 to + 150							$^\circ\text{C}$

### Notes :

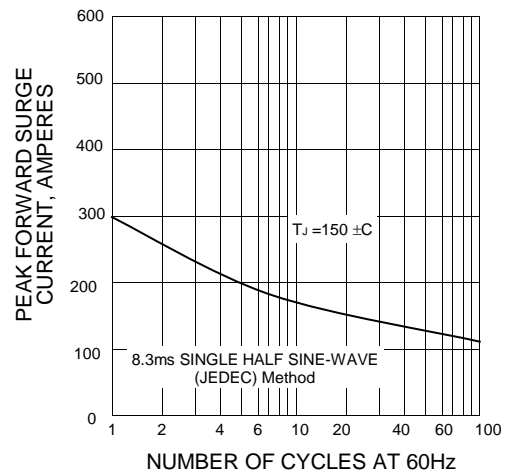
- (1) Thermal resistance from junction to ambient and from junction to lead at 0.375" (9.5mm) lead length, P.C.B. mounted with 1.1" x 1.1" (30 x 30mm) copper pads
- (2) Reverse Recovery Test Conditions :  $I_F=0.5\text{A}$ ,  $I_R=1.0\text{A}$ ,  $I_{rr}=0.25\text{A}$

### RATING AND CHARACTERISTIC CURVES ( P600A - P600M )

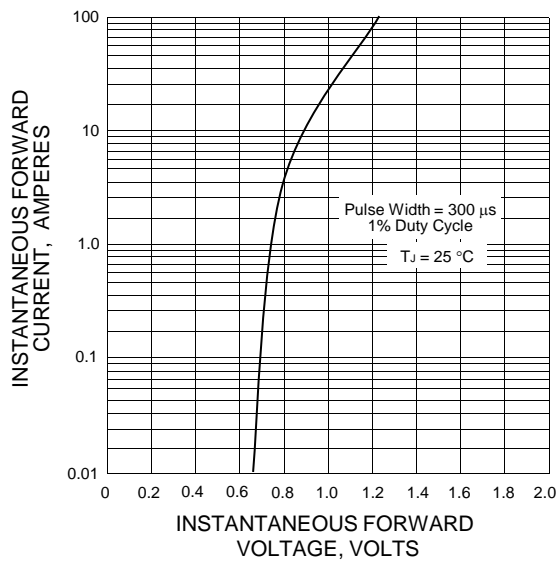
**FIG.1 - MAXIMUM FORWARD CURRENT DERATING CURRENT**



**FIG.2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**FIG.4 - TYPICAL REVERSE CHARACTERISTICS**

