

P600A - P600M

PRV : 50 - 1000 Volts

Io : 6.0 Amperes

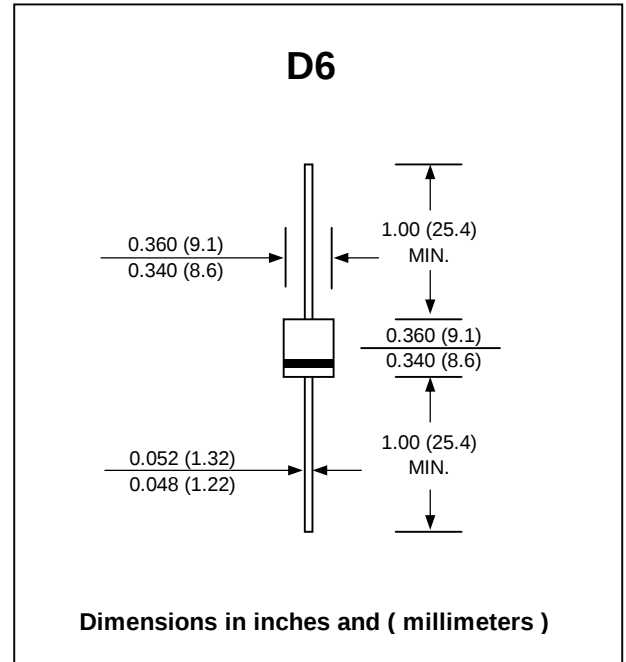
FEATURES :

- * 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-O 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 $T_a = 60^\circ\text{C}$	$I_{F(AV)}$	6.0							A
Peak Forward Surge Current 8.3ms Single half sine wave Superimposed on rated load (JEDEC Method)	I_{FSM}	400							A
Maximum Instantaneous Forward Voltage at $I_F = 6\text{ A}$ at $I_F = 100\text{ A}$	V_F	0.9						1.0	V
		1.3						1.4	V
Maximum DC Reverse Current $T_a = 25^\circ\text{C}$ at rated DC Blocking Voltage $T_a = 100^\circ\text{C}$	I_R	5.0							μA
	$I_{R(H)}$	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							μs
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

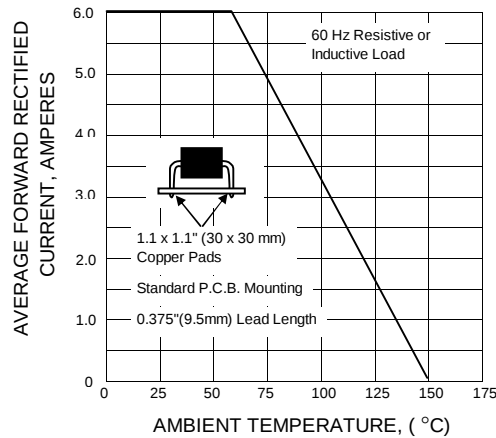


FIG.2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

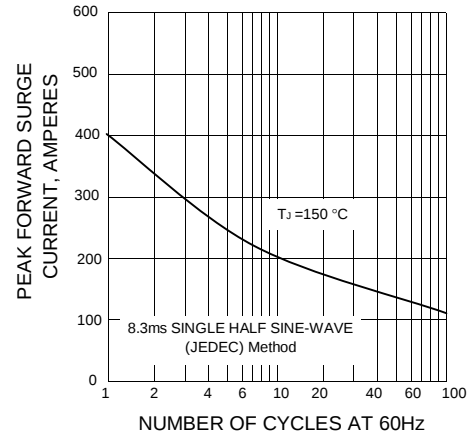


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

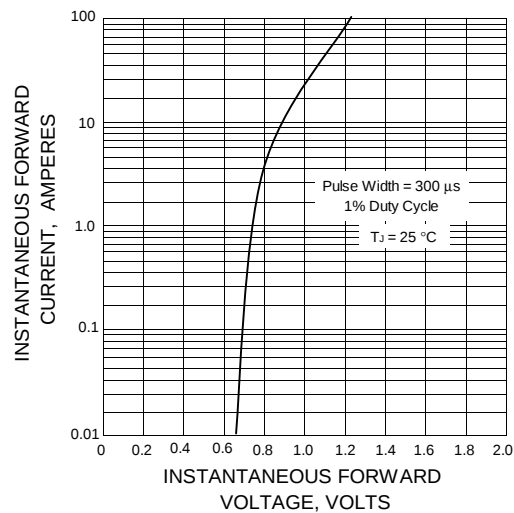


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

