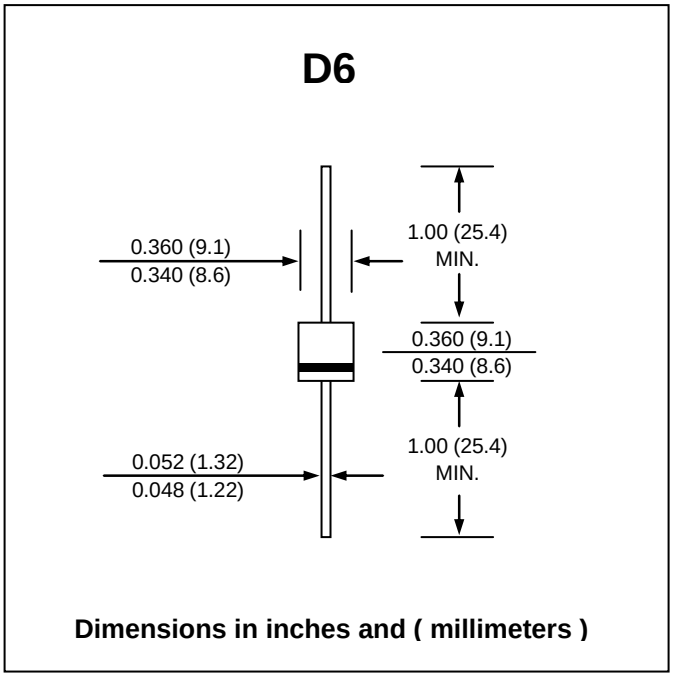
P600A - P600M

SILICON RECTIFIER DIODES

PRV : 50 - 1000 Volts



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

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specifie.

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 Ta = 60 °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 A	V_F	1.0							V
Maximum DC Reverse Current Ta = 25 °C	I_R	5.0							µA
at rated DC Blocking Voltage Ta = 100 °C	$I_{R(H)}$	1.0							mA
Typical junction capacitance at 4.0V, 1MHz	C_J	150							pF
Typical Thermal Resistance (1)	$R_{\theta JA}$	20							°C/W
Typical reverse recovery time (2)	T_{rr}	2.5							µs
Junction Temperature Range	T_J	- 50 to + 150							°C
Storage Temperature Range	T_{STG}	- 50 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

(2) Reverse Recovery Test Conditions I_F=0.5A, I_R=1.0A, Irr=0.25A

RATING AND CHARACTERISTIC CURVES (P600A - P600M)

FIG.1 - MAXIMUM FORWARD CURRENT DERATING CURRENT

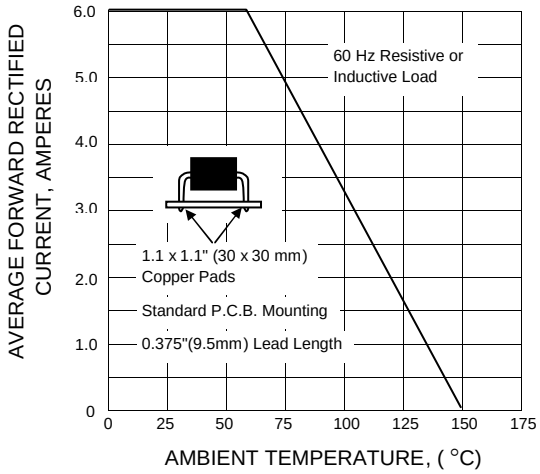


FIG.2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

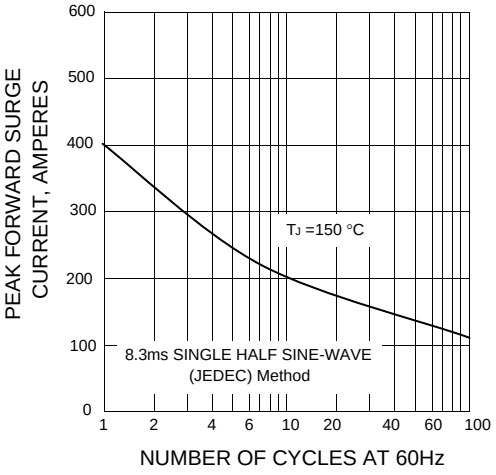


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

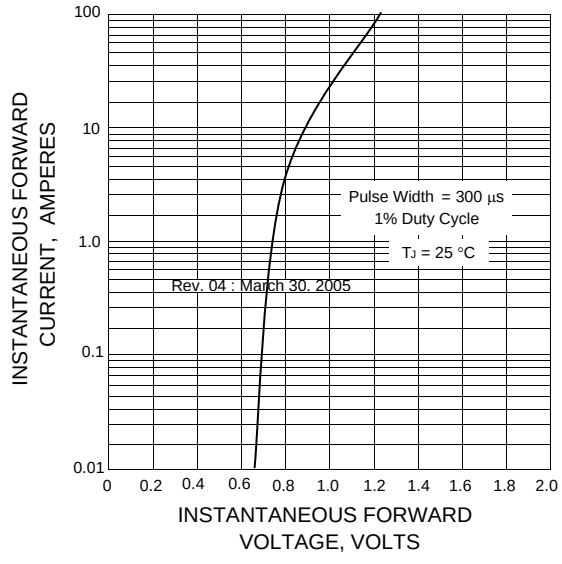


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS