

6A05 - 6A10

PRV : 50 - 1000 Volts

Io : 6.0 Amperes

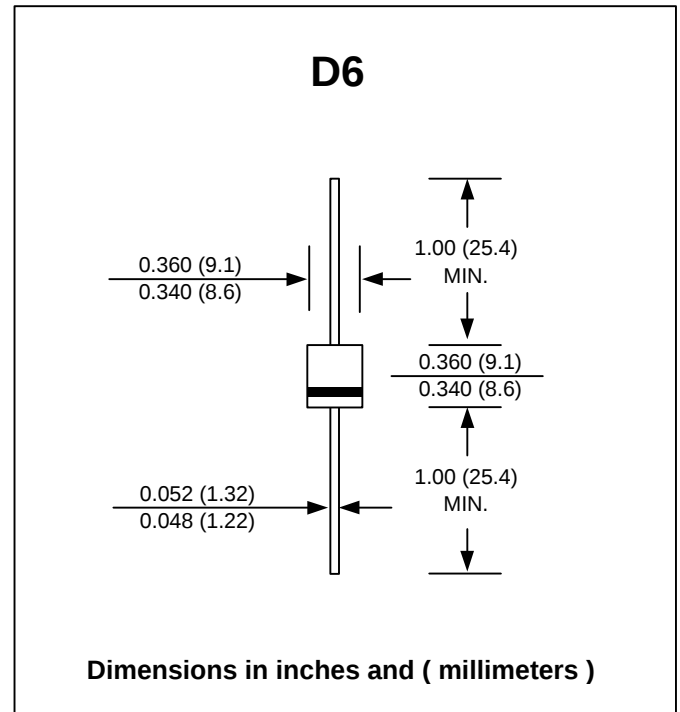
FEATURES :

- * 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	6A05	6A1	6A2	6A4	6A6	6A8	6A10	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}	400							A
Maximum Instantaneous Forward Voltage at $I_F = 6\text{ A}$	V_F	0.95						1.0	V
Maximum DC Reverse Current $T_a = 25\text{ }^{\circ}\text{C}$	I_R	5.0							μA
at rated DC Blocking Voltage $T_a = 100\text{ }^{\circ}\text{C}$	$I_{R(H)}$	1.0							mA
Typical junction capacitance at 4.0V, 1MHz	C_J	150							pF
Typical Thermal Resistance (1)	$R_{\theta JA}$	20							$^{\circ}\text{C/W}$
Junction Temperature Range	T_J	- 50 to + 150							$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	- 50 to + 150							$^{\circ}\text{C}$

Note :

- (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

RATING AND CHARACTERISTIC CURVES (6A05 - 6A10)

FIG.1 - MAXIMUM FORWARD CURRENT DERATING CURRENT

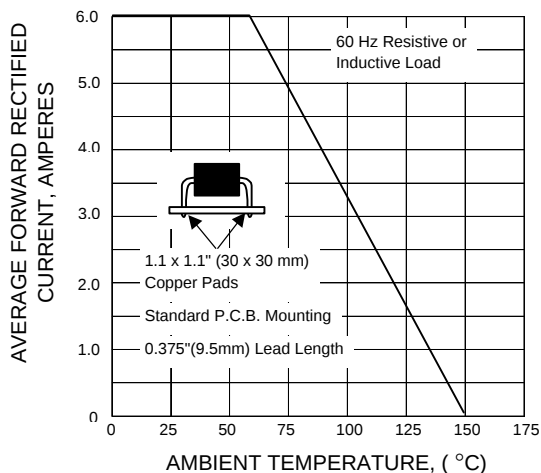


FIG.2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

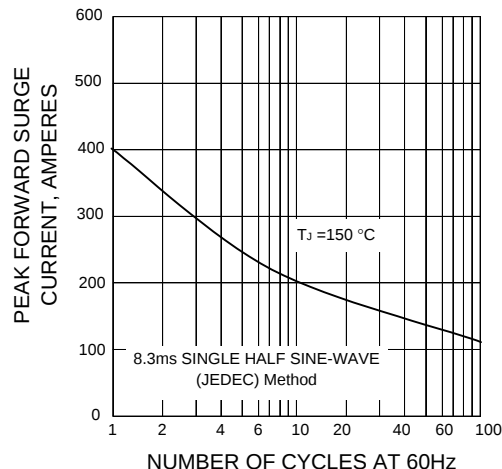


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

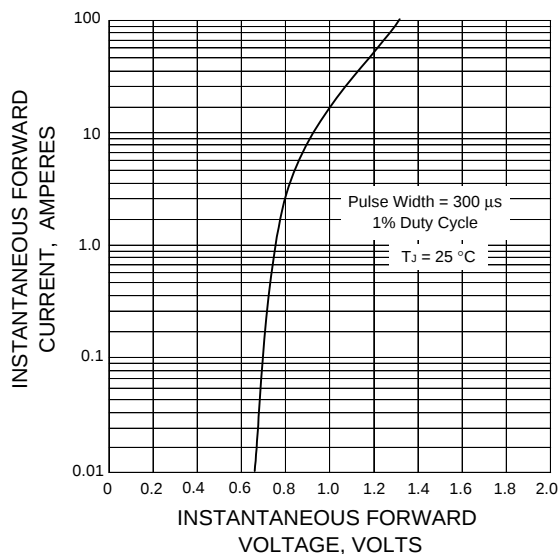


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

