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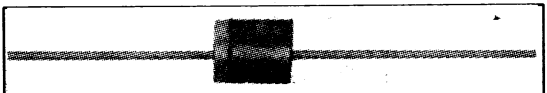
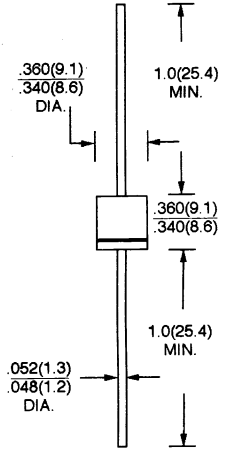
6A05 THRU 6A10

6.0 AMPS. SILICON RECTIFIERS



VOLTAGE RANGE
50 to 1000 Volts
CURRENT
2.0 Amperes

P600



Dimensions in inches and (millimeters)

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: 2.0 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25℃ ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%

TYPE NUMBER	SYMBOLS	6A05	6A1	6A2	6A4	6A6	6A8	6A10	UNITS
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 D.C Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current .375" (9.5mm) lead length @ $T_A = 60℃$	$I_{F(AV)}$	6.0							A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load(JEDEC method)	I_{FSM}	250							A
Maximum Instantaneous Forward Voltage at 6.0A	V_F	1.0							V
Maximum D.C Reverse Current @ $T_A = 25℃$ at Rated D.C Blocking Voltage @ $T_A = 100℃$	I_R	10.0 200							μA μA
Typical Junction Capacitance (Note 1)	C_J	100							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	10							℃/W
Operating Temperature Range	T_J	−65 to +125							℃
Storage Temperature Range	T_{STG}	−65 to +150							℃

NOTES: 1. Measured at 1 MHz and applied reverse voltage of 4.0V D.C.
2. Thermal Resistance from Junction to Ambient 0.375"(9.5mm) Lead Length.

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RATINGS AND CHARACTERISTIC CURVES (6A05 THRU 6A10)

FIG.1 – TYPICAL FORWARD CURRENT DERATING CURVE

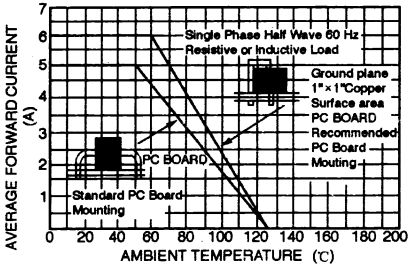

FIG.2 – MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

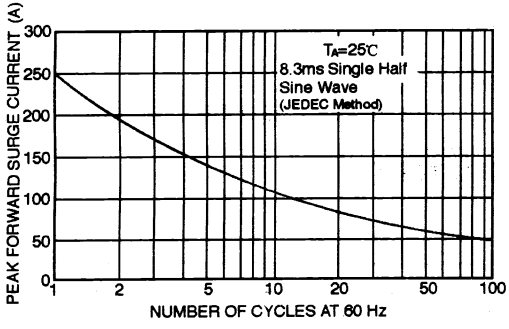

FIG.3 – TYPICAL FORWARD SURGE CURRENT

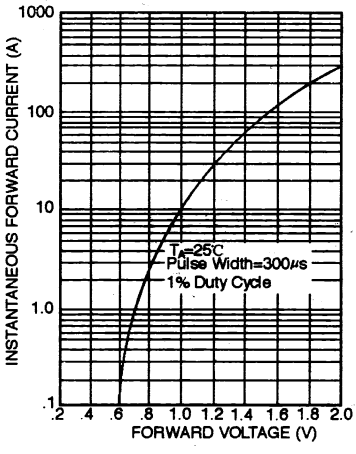

FIG.4 – TYPICAL REVERSE CHARACTERISTICS

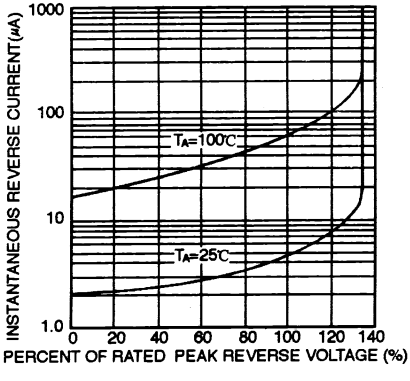

FIG.5 – TYPICAL JUNCTION CAPACITANCE