Technical Data ***Green Products***
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6A05 THRU 6A10

GENERAL PURPOSE SILICON RECTIFIER

Reverse Voltage - 50 to 1000 Volts **Forward Current** – 6.0 Amperes

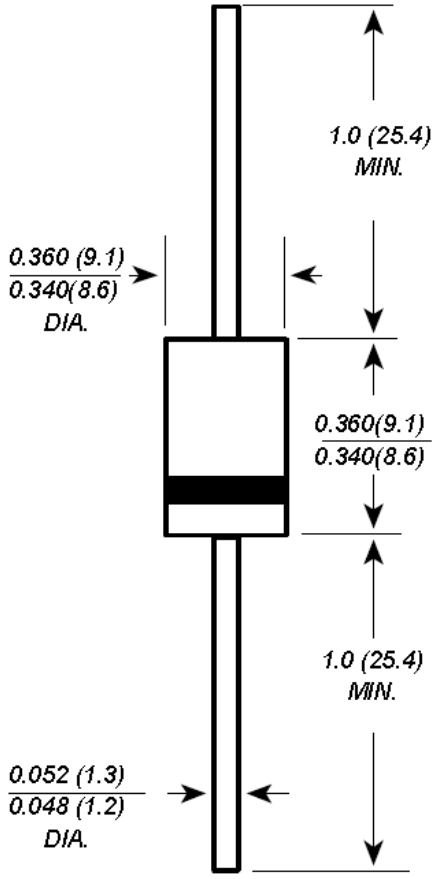
FEATURES

- **The plastic package carries Underwriters Laboratory Flammability Classification 94V-0**
- **Construction utilizes void-free molded plastic technique**
- **Low reverse leakage**
- **High forward surge current capability**
- **High temperature soldering guaranteed: 250℃ /10 seconds,0.375”(9.5mm) lead length, 5 lbs. (2.3kg) tension**

MECHANICAL DATA

- **Case: R-6 molded plastic body**
- **Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026**
- **Polarity: Color band denotes cathode end**
- **Mounting Position: Any**
- **Weight:0.072 ounce, 2.05 grams**

MECHANICAL DIMENSIONS: In Inches/mm



R-6

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MARKING DIAGRAM

6A05 = Part Name

Cautions: Molding resin
Epoxy resin UL:94V-0

ORDERING INFORMATION

Device	Package	Shipping
6A05-6A10	R-6 (Pb-Free)	500pcs / box

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification.

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 C ambient temperature unless otherwise specified.
Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

Type Number	Symbol	6A05	6A1	6A2	6A4	6A6	6A8	6A10	Unit
Maximum repetitive peak reverse voltage Maximum DC blocking voltage	V_{RRM} V_{DC}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum average forward rectified current 0.375"(9.5mm) lead length at @T_A = 60°C	$I_{(AV)}$	6.0							A
Non-Repetitive 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 6.0A	V_F	0.95							V
Maximum DC reverse current @T_A = 25°C At Rated DC Blocking Voltage @T_A = 100°C	I_R	10.0 400							μA
Typical Junction Capacitance (Note 1)	C_J	150							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	10.0							°C/W
Operating junction and storage temperature range	T_J, T_{STG}	-65 to +175							°C

Note: 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. Thermal resistance from junction to ambient at 0.375"(9.5mm)lead length, P.C.B. mounted

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RATINGS AND CHARACTERISTIC CURVES 6A05 THRU 6A10

FIG. 1- FORWARD CURRENT DERATING CURVE

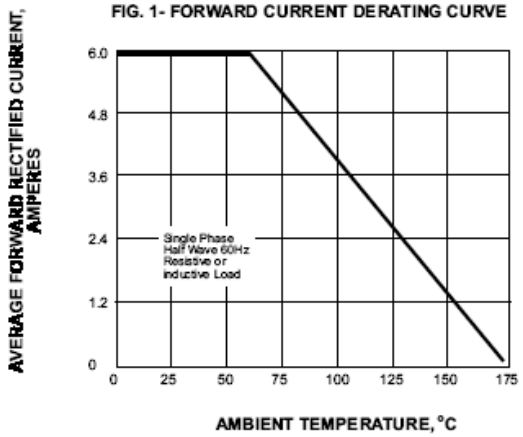


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

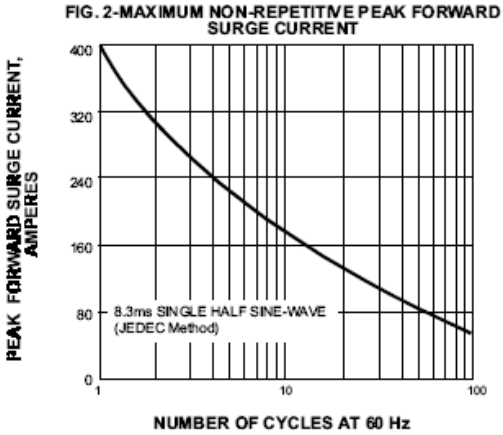


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

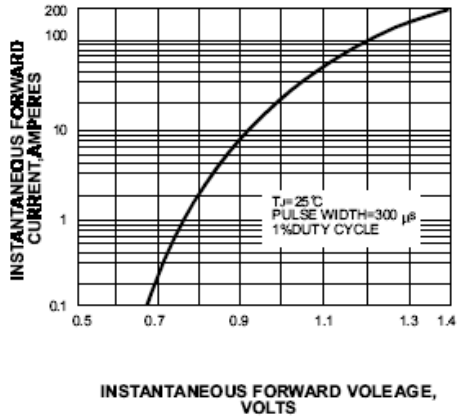


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

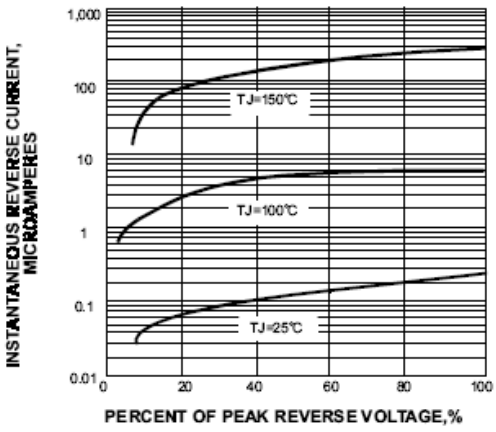


FIG. 5-TYPICAL JUNCTION CAPACITANCE

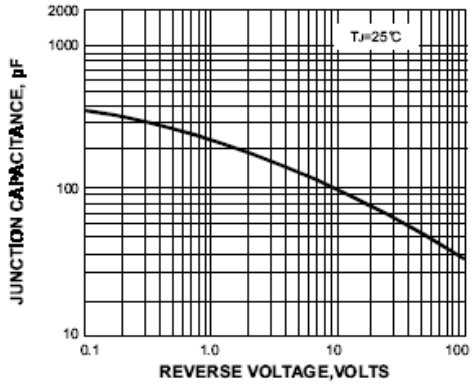
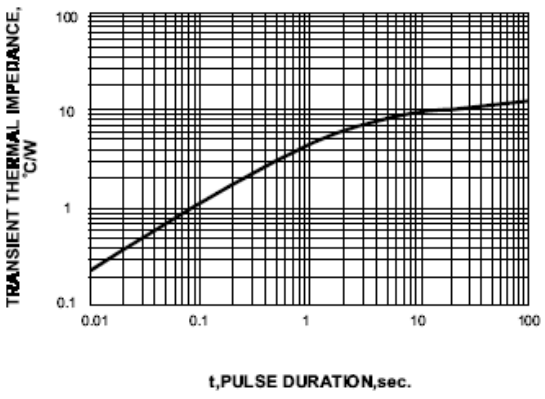


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE



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