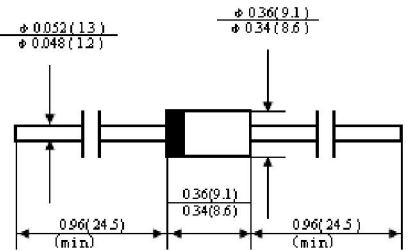


6.0AMP PLASTIC SILICON RECTIFIERS

VOLTAGE RANGE: 50 to 1000 VOLTS

R-6



inch (mm)

FEATURES

- . Low cost
- . Diffused junction
- . Low Leakage
- . Low forward voltage drop
- . High current capability
- . Easily cleaned with Freon, Alcohol, Isopropanol and similar solvents
- . The plastic material carries U/L recognition 94V-0

MECHANICAL DATA

- . Case: JEDEC R-6, molded plastic
- . Terminals: Axial leads. Solderable per MIL-STD-202, Method 208
- . Polarity: Color band denotes cathode
- . Weight: 0.042 ounce, 1.19 grams
- . Mounting position: Any

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%

	SYMBOL	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 DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current 9.5mm Lead Length, $T_A = 60^\circ\text{C}$	I_{AV}	6.0							A
Peak Forward Surge Current 8.3ms Single half-sine-wave superimposed on rated	I_{FSM}	400							A
Maximum full load reverse current full cycle average, lead length at $T_A = 75^\circ\text{C}$	$I_{R(AV)}$	50							μA
Maximum Forward Voltage at 6.0A DC	V_F	0.95							V
Maximum Reverse Current $T_A = 25^\circ\text{C}$ at Rated DC Blocking Voltage $T_A = 100^\circ\text{C}$	I_R	10, 0 400							μA
Typical thermal resistance (Note 1)	$R_{\theta JA}$	10							$^\circ\text{C}/\text{W}$
Typical Junction Capacitance (Note 2)	C_j	100							pF
Operating Junction Temperature Range	T_j	— 55 to 125							$^\circ\text{C}$
Storage Temperature Range	T_{STG}	— 55 to 150							$^\circ\text{C}$

NOTE: 1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

2. Thermal Resistance Junction to Ambient.

FIG. 1 – TYPICAL FORWARD CHARACTERISTIC

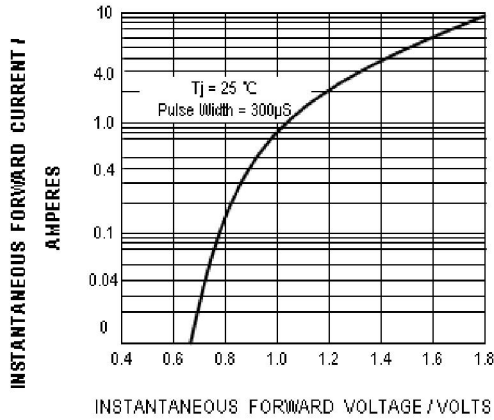


FIG. 2 – TYPICAL JUNCTION CAPACITANCE

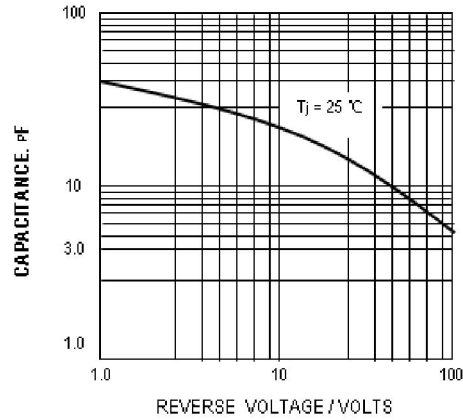


FIG. 3 – FORWARD CURRENT DERATING CURVE

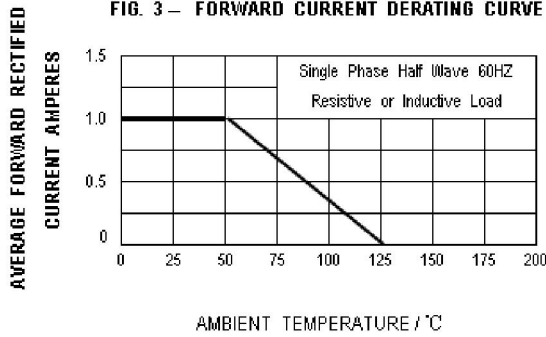


FIG. 4 – PEAK FORWARD SURGE CURRENT

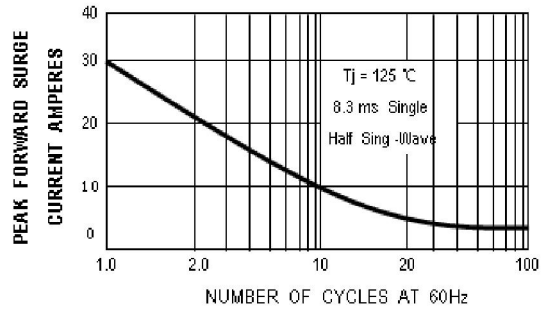


Fig.5-Typical transient thermal impedance

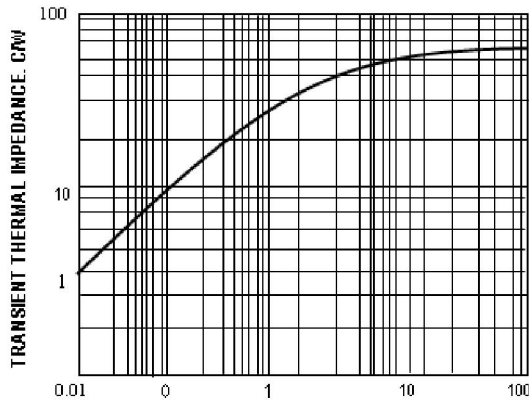


Fig.6-TYPICAL REVERSE CHARACTERISTICS

