6 AMP SILICON RECTIFIERS

6A05 THRU 6A10

TECHNICAL SPECIFICATION

FEATURES

- *Low cost construction utilizing void - free moulded plastic technique*
- *Plastic package has Underwriters Laboratories Flammability Classification 94V-0*
- *Diffused junction*
- *High surge current capability*
- *High temperature soldering capability : 250°C/10 seconds/9.5mm (.375in.) lead length at 2.3kg (5lb) tension*
- *Easily cleaned with Freon, Alcohol, Chlorothene and other similar solvents*

VOLTAGE
50 to 1000 Volts

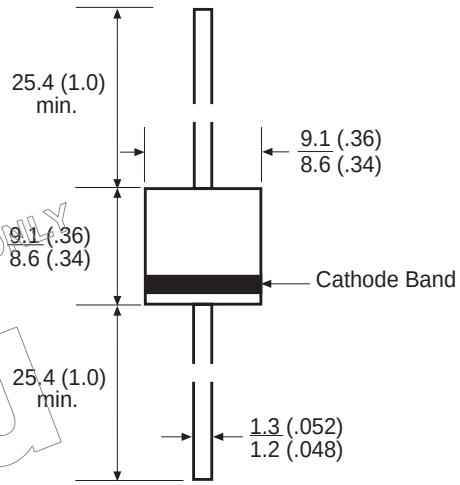
CURRENT
6.0 Amp

MECHANICAL DATA

Case : Moulded plastic.
Terminals : Plated axial leads, solderable per MIL-STD-202, Method 208.
Polarity : Colour band denotes cathode end.
Mounting Position : Any
Weight : 2.1 grams (0.07 ounce)

DIMENSIONS - millimeters (inches)

R-6



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

	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 DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current 9.5mm (.375in.) Lead Length at T_A = 60°C	$I_{F(AV)}$	6.0							A
Peak Forward Surge Current, 8.3 ms single half sine - wave superimposed on rated load	I_{FSM}	400							A
Maximum Instantaneous Forward Voltage at 6.0A	V_F	0.95							V
Maximum Reverse Current at Rated DC Blocking Voltage T_A = 25°C	I_R	5.0							µA
Maximum Reverse Current at Rated DC Blocking Voltage T_A = 100°C	I_R	1							mA
Maximum Full load Reverse Current Full Cycle Average, 12.5mm (.5in.) Lead Length at T_L = 100°C	$I_{R(AV)}$	1							mA
Typical Junction Capacitance (see Note 1)	C_J	300							pF
Typical Thermal Resistance (see Note 2)	R_{THja}	10							°C/W
Operating Temperature Range	T_J	- 50 to + 150							°C
Storage Temperature Range	T_{STG}	- 50 to + 150							°C

Notes :
1. Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts
2. Thermal Resistance from Junction to Ambient at 12.5mm (.5in.) lead length

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RATING AND CHARACTERISTIC CURVES

FIG. 1 - FORWARD CURRENT DERATING CURVE

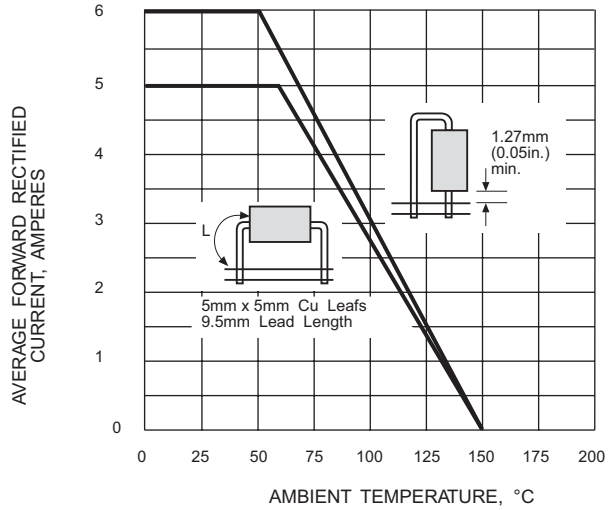

FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

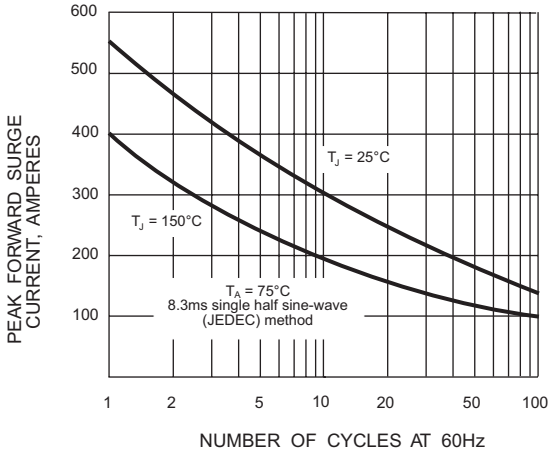

FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

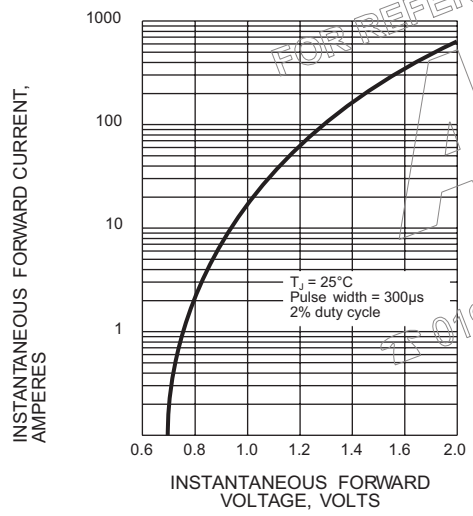

FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

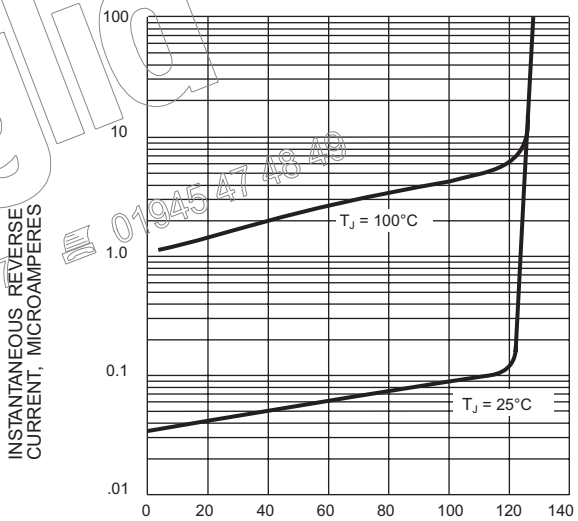

FIG. 5 - TYPICAL THERMAL RESISTANCE VS LEAD

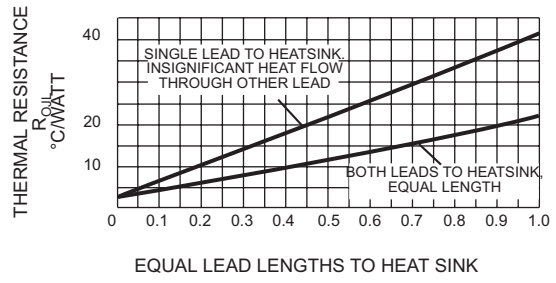

FIG. 6 - FORWARD CURRENT DERATING CURVE