



FUKUCOM COMPANY LTD.

福 靈 有 限 公 司

FLAT P, 3/F, EVEREST INDUSTRIAL CENTRE, 396 KWUN TONG ROAD,
KWUN TONG, KOWLOON, HONG KONG.
TEL: 2790-0314 FAX: 2790-0206



GENERAL PURPOSE SILICON RECTIFIER

6A05 THRU 6A10

VOLTAGE RANGE
CURRENT

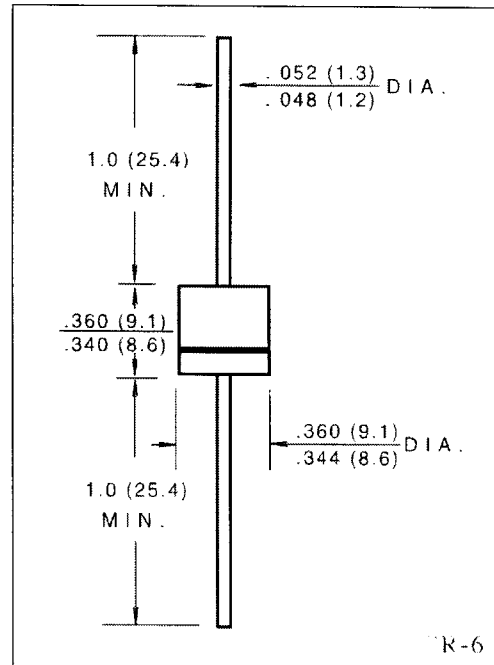
50 to 1000 Volts
6.0 Ampere

FEATURES

- Low cost construction.
- Low forward voltage drop
- Low reverse leakage
- High forward surge current capability.
- High temperature soldering guaranteed:
260°C/10 seconds, 0.375" (9.5mm)lead length
at 5 lbs (2.3kg) tension.

MECHANICAL DATA

- Case: transfer molded plastic
- Epoxy: UL94V - 0 rate flame retardant.
- Polarity: Color band denotes cathode end.
- Lead: Plated axial lead, solderable per MIL - STD - 202E
method 208C
- Mounting position: Any
- Weight: 0.07 ounce,2.0grams



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 derate current by 20%

	SYMBOLS	6A05	6A1	6A2	6A4	6A6	6A8	6A10	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current, 0.375" (9.5mm) lead length at $T_A = 60^\circ C$	$I_{(AV)}$	6.0							Amps
Peak Forward Surge Current 8.3ms single half sine - wave superimposed on rated load (JEDEC method)	I_{FSM}	400							Amps
Maximum Instantaneous Forward Voltage at 6.0A	V_F	0.95							Volts
Maximum DC Reverse Current at rated DC blocking voltage	$T_A = 25^\circ C$	10							μA
	$T_A = 100^\circ C$	1.0							mA
Maximum Full Load Reverse Current, full cycle average 0.375" (9.5mm) lead length at $T_L = 105^\circ C$	$I_{R(AV)}$	1.0							mA
Typical Junction Capacitance (Note 1)	C_J	150							pF
Typical Thermal Resistance (Note2)	$R_{\theta JA}$	10							$^\circ C/W$
Operating and Storage Temperature Range	T_J	(-65 to +175)							$^\circ C$
Storage Temperature Range	T_{STG}	(-65 to +175)							$^\circ C$

NOTES:

1. Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts.
2. Thermal Resistance from Junction to Ambient at 0.375" (9.5mm) lead length, P.C. board mounted with 1.1" x 1.1"
(30 X 30mm) copper heatsink.



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RATINGS AND CHARACTERISTIC CURVES 6A05 THRU 6A10

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

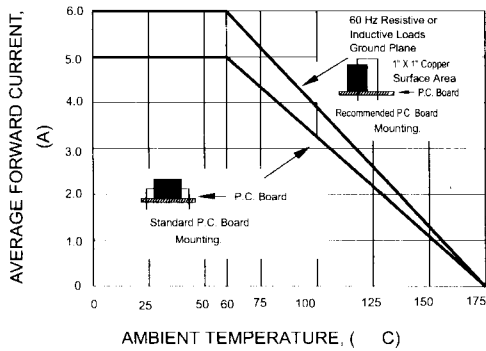


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

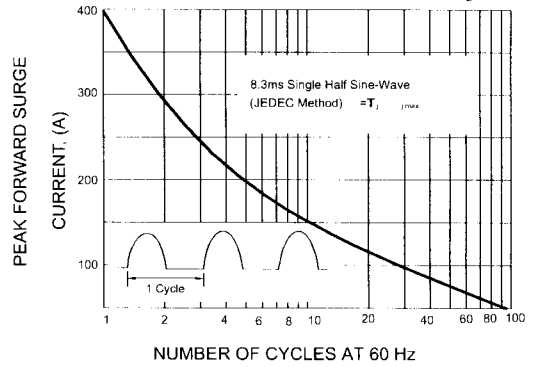


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

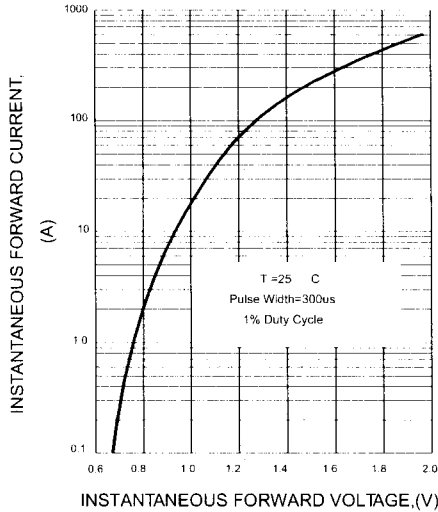


FIG.4-TYPICAL REVERSE CHARACTERISTICS

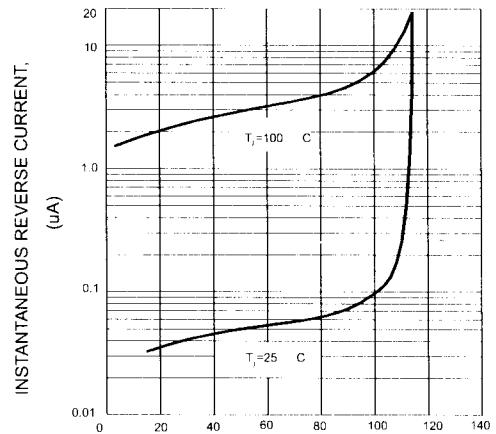


FIG.5-TYPICAL JUNCTION CAPACITANCE

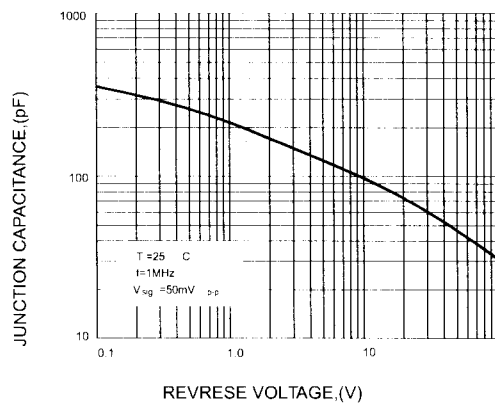


FIG.6-TYPICAL THERMAL RESISTANCE VS LEAD LENGTH

