



**SEMICONDUCTOR
TECHNICAL DATA**

**6A05M
THRU
6A10M**

FORWARD INTERNATIONAL ELECTRONICS LTD.

TECHNICAL SPECIFICATIONS OF SILICON RECTIFIER
VOLTAGE RANGE - 50 to 1000 Volts CURRENT - 6.0 Amperes

FEATURES

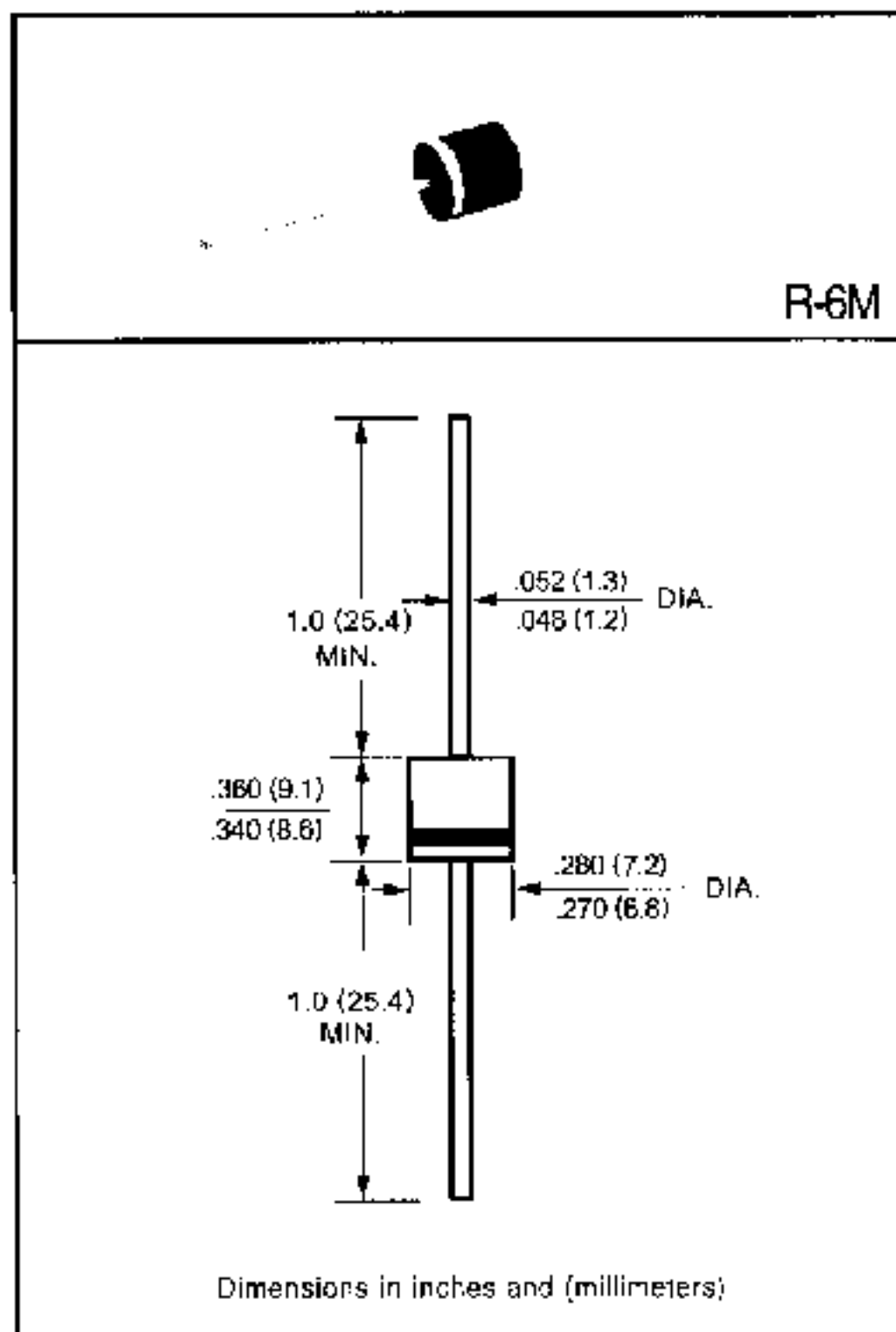
- * Low cost
- * Low leakage
- * Low forward voltage drop
- * High current capability
- * High surge current capability

MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Lead: MIL-STD-202E, Method 208 guaranteed
- * Polarity: Color band denotes cathode end
- * Mounting position: Any
- * Weight: 1.65 grams

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%.



	SYMBOL	6A05M	6A1M	6A2M	6A4M	6A6M	6A8M	6A10M	UNITS
Maximum Recurrent 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 at T _A = 60°C	I _O	6.0							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	400							Amps
Maximum Instantaneous Forward Voltage at 6.0A DC	V _r	1.1							Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	I _r	@ T _A = 25°C							uAmps
		500							
Maximum Full Load Reverse Current Average Full Cycle .375" (9.5mm) lead length at T _A = 75°C		50							uAmps
Typical Junction Capacitance (Note)	C _j	150							pF
Typical Thermal Resistance	R _{θJA}	10							°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to + 175							°C

NOTES Measured at 1 MHz and applied reverse voltage of 4.0 volts

RATING AND CHARACTERISTIC CURVES (6A05M THRU 6A10M)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

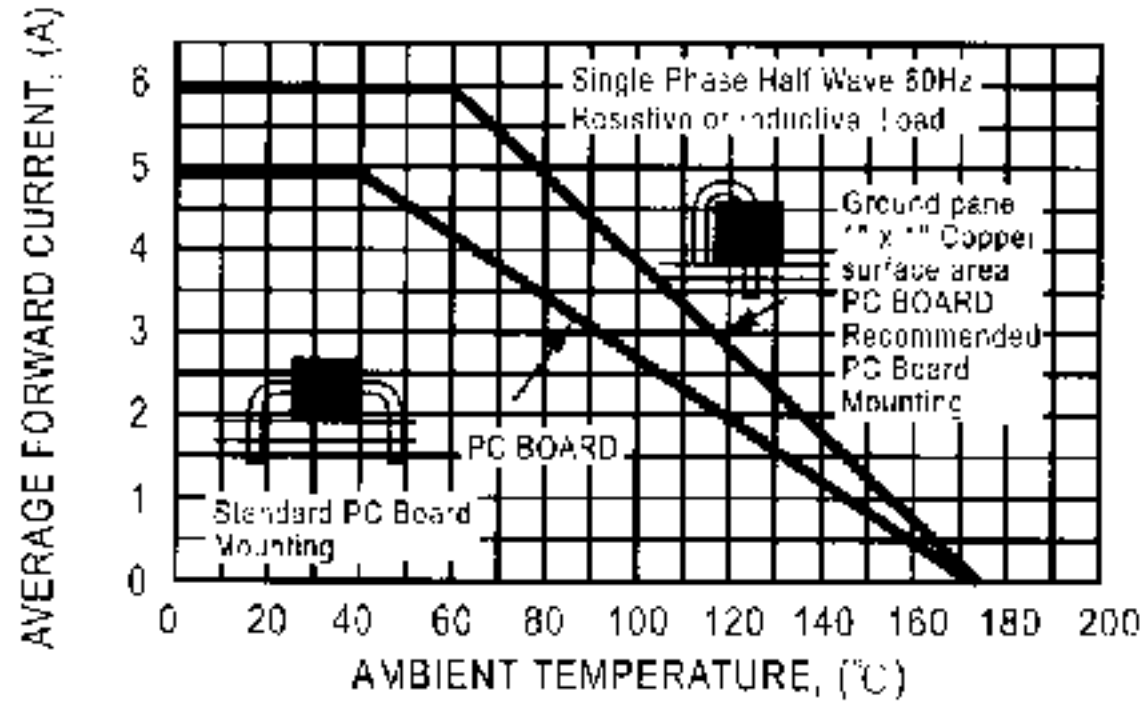


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

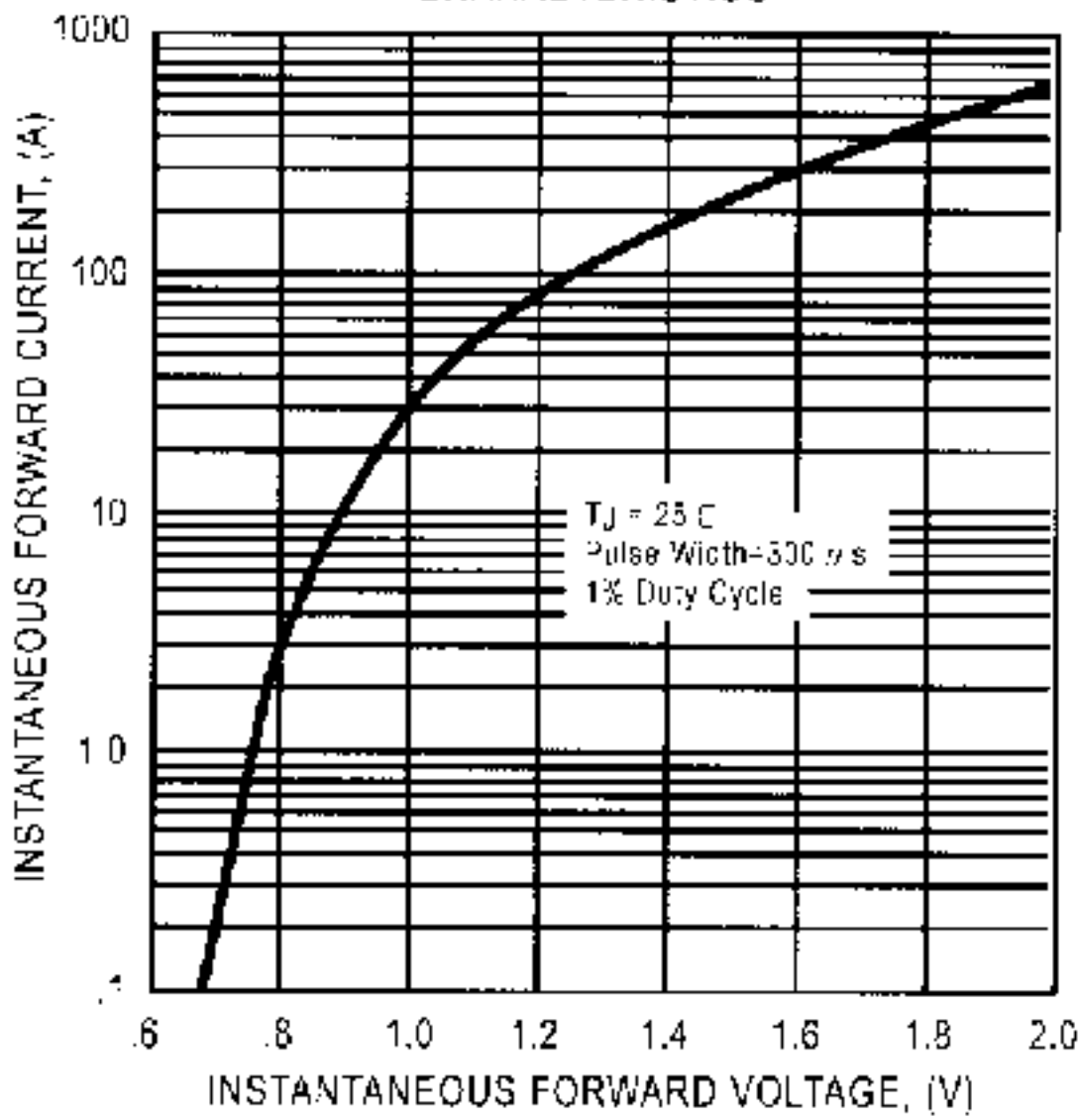


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

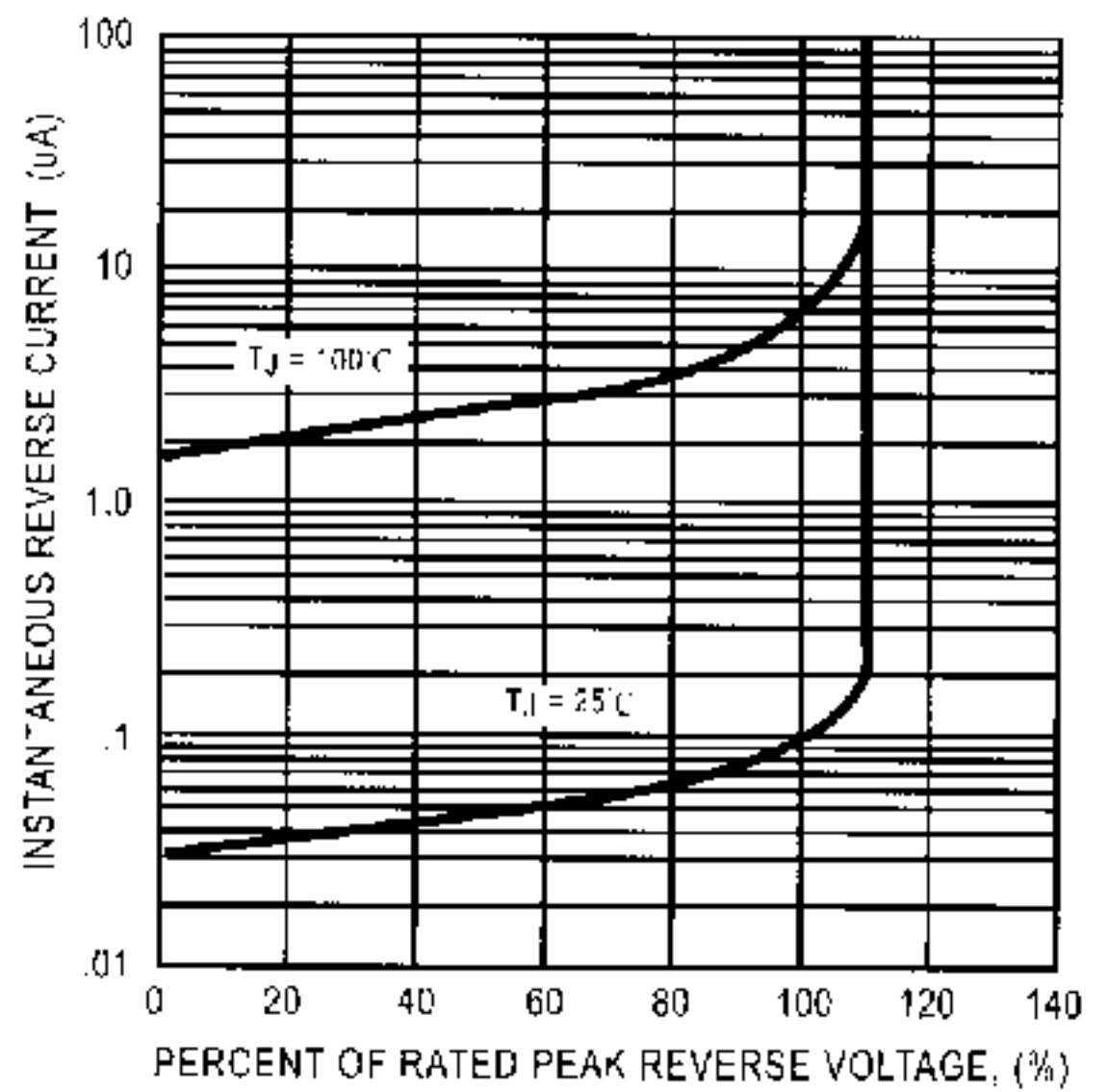


FIG. 3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

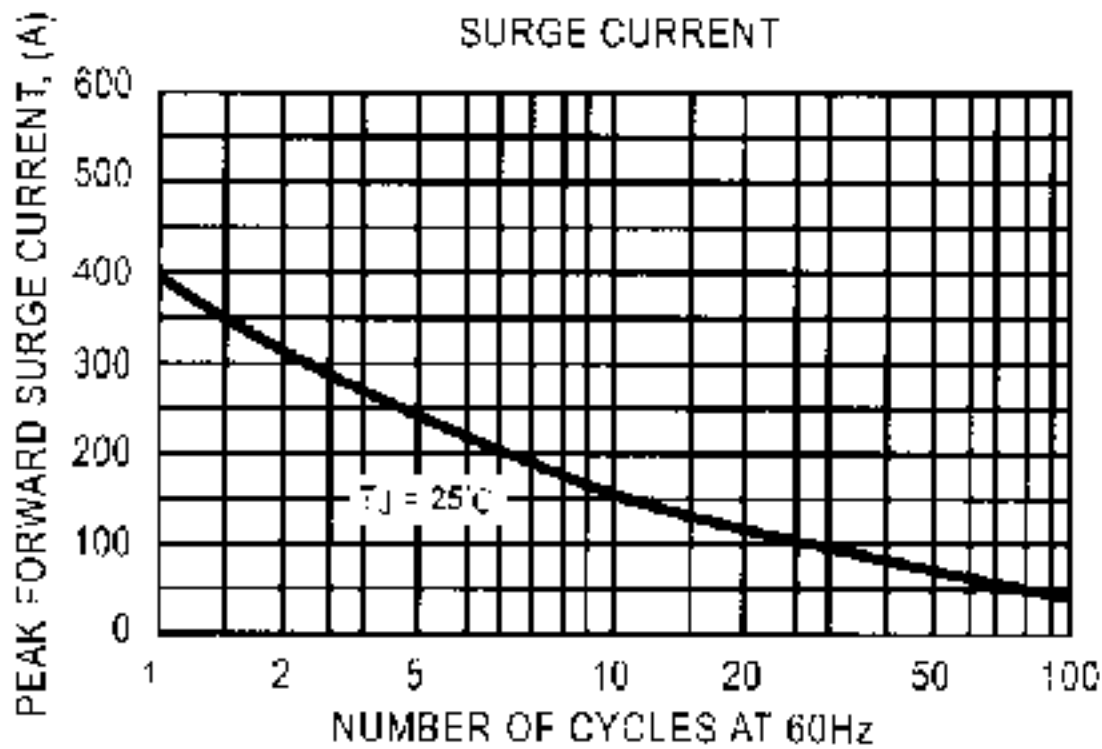


FIG. 5 - TYPICAL THERMAL RESISTANCE VS LEAD LENGTH

