



**DC COMPONENTS CO., LTD.**

RECTIFIER SPECIALISTS

**6A05M  
THRU  
6A10M**

**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**

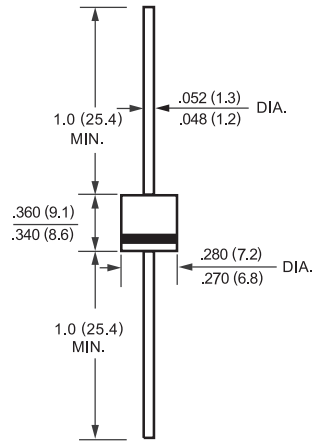
- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Lead: MIL-STD-202E, Method 208 guaranteed
- \* Polarity: Color band denotes cathode end
- \* Mounting position: Any
- \* Weight: 1.65 grams

**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%.



**R-6M**



Dimensions in inches and (millimeters)

	SYMBOL	6A05M	6A1M	6A2M	6A4M	6A6M	6A8M	6A10M	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current at T <sub>A</sub> = 60°C	I <sub>O</sub>	6.0							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>					400			Amps
Maximum Instantaneous Forward Voltage at 6.0A DC	V <sub>F</sub>					1.1			Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	I <sub>R</sub>					10			uAmps
						500			
Maximum Full Load Reverse Current Average Full Cycle .375" (9.5mm) lead length at T <sub>L</sub> = 75°C						50			uAmps
Typical Junction Capacitance (Note)	C <sub>J</sub>					150			pF
Typical Thermal Resistance	R <sub>θJA</sub>					10			°C/W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>					-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

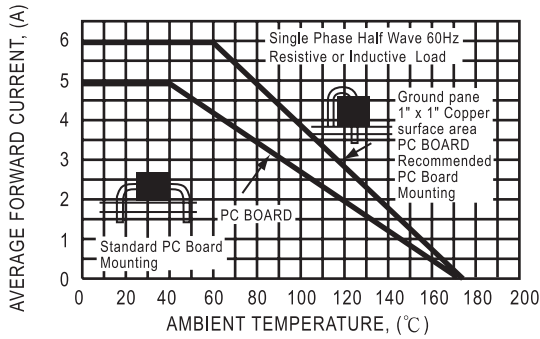


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

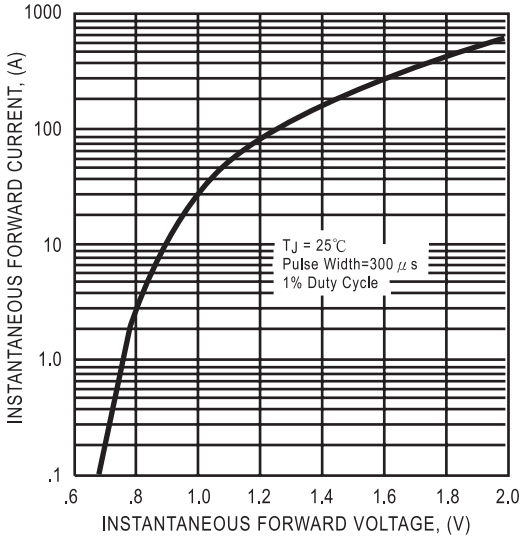


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

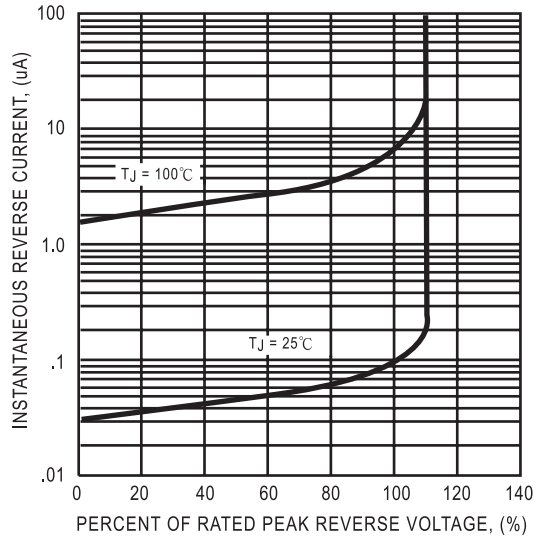


FIG. 3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

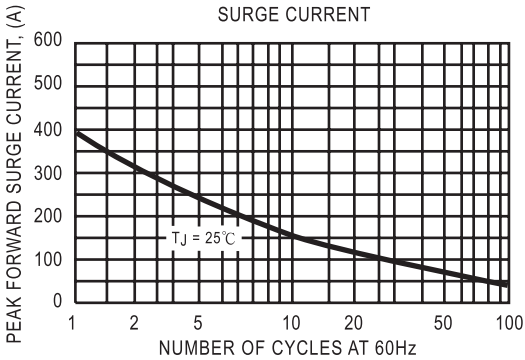
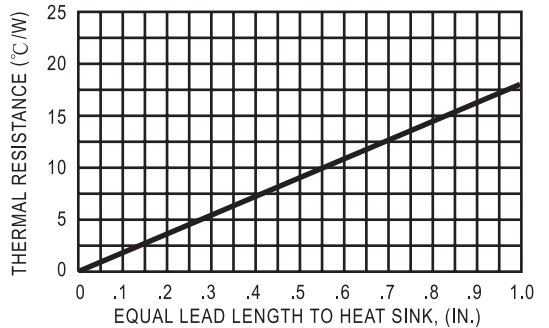


FIG. 5 - TYPICAL THERMAL RESISTANCE VS LEAD LENGTH



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