



**DC COMPONENTS CO., LTD.**

RECTIFIER SPECIALISTS

6A05/P600A  
THRU  
6A10/P600M

**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**

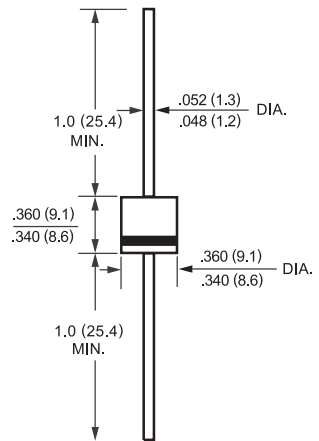
- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Lead: MIL-STD-202E, Method 208 guaranteed
- \* Polarity: Color band denotes cathode end
- \* Mounting position: Any
- \* Weight: 2.08 grams

**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-6



Dimensions in inches and (millimeters)

	SYMBOL	P600A	P600B	P600D	P600G	P600J	P600K	P600M	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>	@ T <sub>A</sub> = 25°C				10				uAmps
		@ T <sub>A</sub> = 100°C				500				
Maximum Full Load Reverse Current Average Full Cycle .375*(9.5mm) lead length at T <sub>L</sub> = 75°C	I <sub>R</sub>	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 ( 6A05 P600A THRU 6A10 P600M )

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

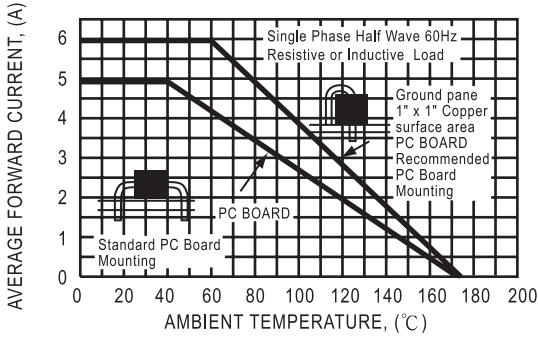


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

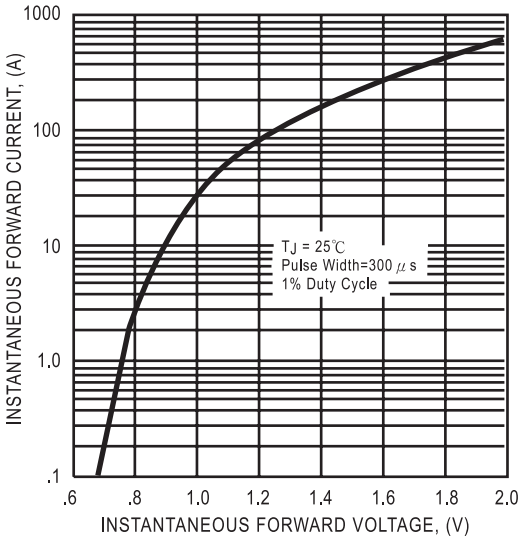


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

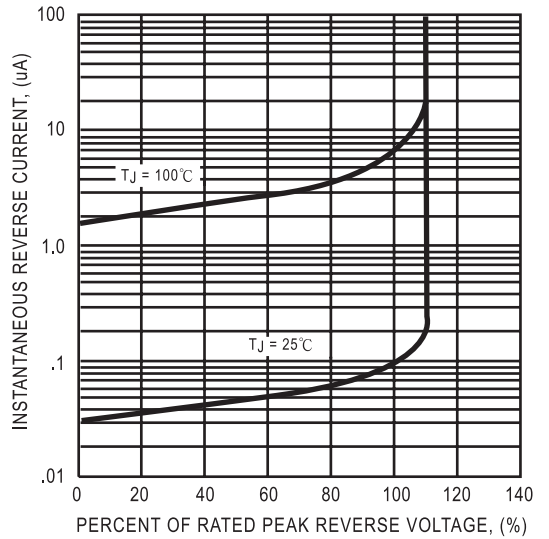


FIG. 3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

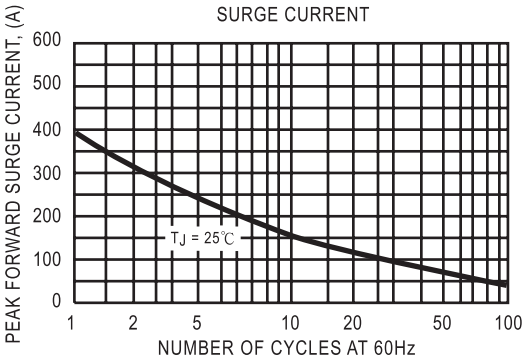


FIG. 5 - TYPICAL THERMAL RESISTANCE VS LEAD LENGTH

