

## 6A05 THRU 6A100

### 6.0 AMPS. Silicon Rectifiers

#### Features

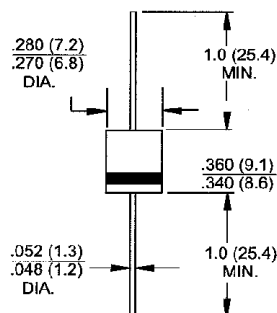
- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability

#### Mechanical Data

- Cases: Molded plastic
- Epoxy: UL 94V-O rate flame retardant
- Lead: Axial leads, solderable per MIL-STD-202, Method 208 guaranteed
- Polarity: Color band denotes cathode end
- High temperature soldering guaranteed: 250°C/10 seconds/.375" (9.5mm) lead lengths at 5 lbs., (2.3kg) tension
- Weight: 1.65 grams

Voltage Range  
50 to 1000 Volts  
Current  
6.0Amperes

#### R-6



Dimensions in inches and (millimeters)

#### Maximum Ratings and Electrical Characteristics

Rating 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%

Type Number	6A05	6A10	6A20	6A40	6A60	6A80	6A100	Units
Maximum Recurrent Peak Reverse Voltage	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current .375 (9.5mm) Lead Length @ T <sub>A</sub> = 60°C	6.0							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	250							A
Maximum Instantaneous Forward Voltage @ 6.0A	0.95							V
Maximum DC Reverse Current @ T <sub>A</sub> =25°C at Rated DC Blocking Voltage @ T <sub>A</sub> =100°C	10 400							uA uA
Maximum Full Load Reverse Current, Full Cycle Average .375" (9.5mm) Lead Length @ T <sub>A</sub> =75°C	50							uA
Typical Junction Capacitance (Note 1)	100							pF
Typical Thermal Resistance R <sub>θJA</sub> (Note 2)	10							°C/W
Operating Temperature Range T <sub>J</sub>	-65 to +125							°C
Storage Temperature Range T <sub>STG</sub>	-65 to +150							°C

Notes: 1. Measured at 1 MHz and Applied Reverse Voltage of 4.0 V D.C.

2. Thermal Resistance from Junction to Ambient .375" (9.5mm) Lead Length.

## RATINGS AND CHARACTERISTIC CURVES (6A05 THRU 6A100)

FIG. 1- MAXIMUM OUTPUT CURRENT VS AMBIENT TEMPERATURE

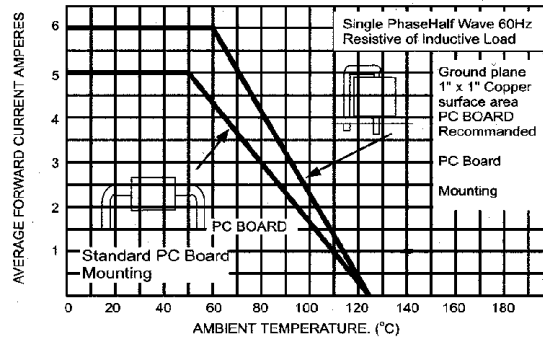


FIG. 2- TYPICAL FORWARD CHARACTERISTICS

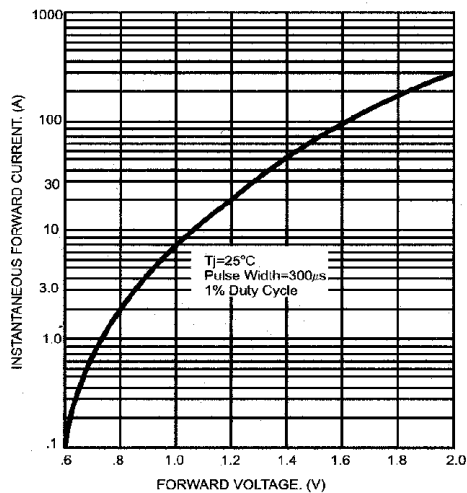


FIG. 3- TYPICAL REVERSE CHARACTERISTICS

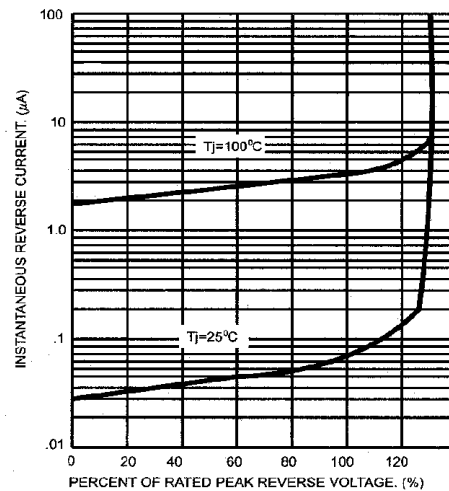


FIG. 4- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

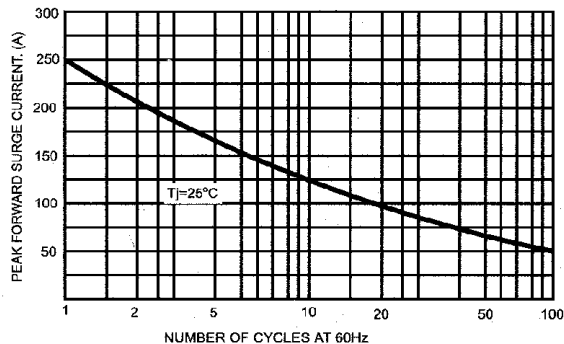


FIG. 5- TYPICAL JUNCTION CAPACITANCE

