



6A05 THRU 6A100

6.0 AMPS. Silicon Rectifiers

Features

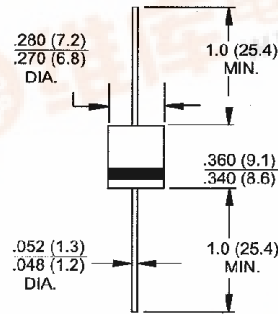
- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability

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 _A = 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 _A =25°C at Rated DC Blocking Voltage @ T _A =100°C | 10 | | | | | | | uA |
| Maximum Full Load Reverse Current, Full Cycle Average .375" (9.5mm) Lead Length @ T _A =75°C | 50 | | | | | | | uA |
| Typical Junction Capacitance (Note 1) | 100 | | | | | | | pF |
| Typical Thermal Resistance R _{θJA} (Note 2) | 10 | | | | | | | °C/W |
| Operating Temperature Range T _J | -65 to +125 | | | | | | | °C |
| Storage Temperature Range T _{STG} | -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

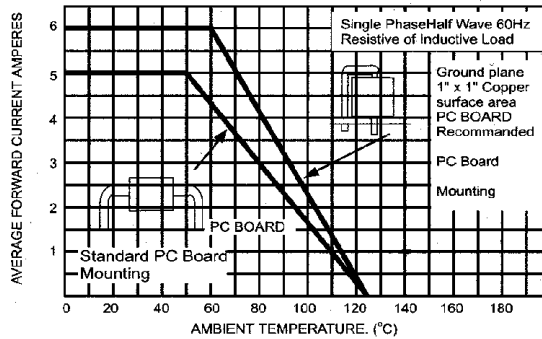


FIG.2- TYPICAL FORWARD CHARACTERISTICS

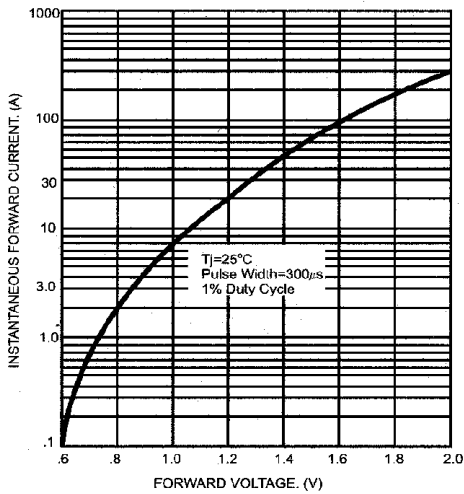


FIG.3- TYPICAL REVERSE CHARACTERISTICS

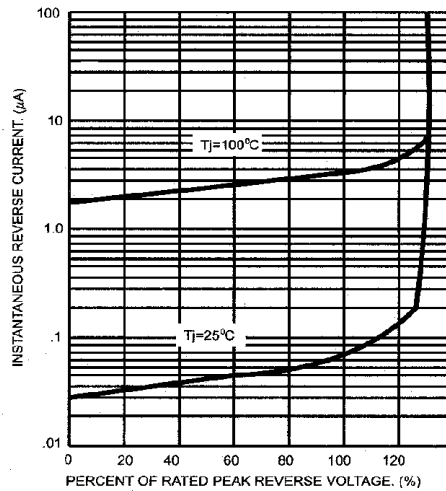


FIG.4- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

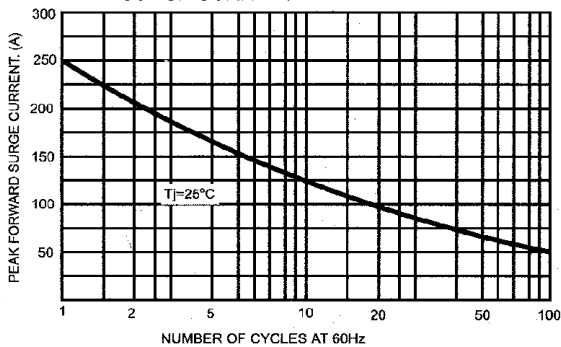


FIG.5- TYPICAL JUNCTION CAPACITANCE

