P600A THRU P600M

<u>Io</u>

6.0 AMP SILICON RECTIFIERS



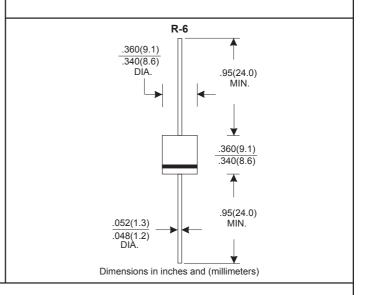
FEATURES

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

MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Lead: Axial leads, solderable per MIL-STD-202, method 208 guranteed
- * Polarity: Color band denotes cathode end
- * Mounting position: Any
- * Weight: 2.0395 grams
- * Both normal and Pb free product are available:
- * Normal:80~95%Sn,5~20%Pb
- * Pb free:99 Sn above can meet Rohs enviroment substance directive request

VOLTAGE RANGE 50 TO 1000 Volts CURRENT 6.0 Amperes



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 25°C ambient temperature unless otherwies specified. Single phase half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

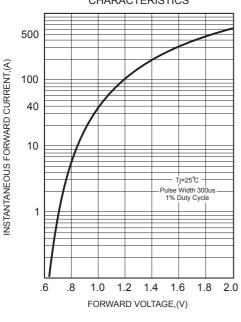
| TYPE NUMBER | P600A | P600B | P600D | P600G | P600J | P600K | P600M | UNITS |
|---|-------|------------|-------|-------|-------|-------|-------|-------|
| Maximum Recurrent Peak Reverse Voltage | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum RMS Voltage | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Maximum DC Blocking Voltage | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum Average Forward Rectified Current | | | | | | | | |
| .375"(9.5mm) Lead Length at Ta=60 °C | | 6.0 | | | | | | |
| Peak Forward Surge Current, 8.3 ms single half sine-wave | | | | | | | | |
| superimposed on rated load (JEDEC method) | | 400 | | | | | | Α |
| Maximum Instantaneous Forward Voltage at 6.0A | | 0.95 | | | | | V | |
| Maximum DC Reverse Current Ta=25 ℃ | | 10.0 | | | | | | μА |
| at Rated DC Blocking Voltage Ta=100 ℃ | | 400 | | | | | | |
| Typical Junction Capacitance (Note 1) | | 100 | | | | | pF | |
| Typical Thermal Resistance RθJA (Note 2) | | 10 | | | | | | °C/W |
| Operating and Storage Temperature Range T _J , TsTG | | -65 — +150 | | | | | | |

NOTES:

- 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
- 2. Thermal Resistance from Junction to Ambient .375" (9.5mm) lead length.

RATING AND CHARACTERISTIC CURVES (P600A THRU P600M)

FIG.1-TYPICAL FORWARD **CHARACTERISTICS** 500 NSTANTANEOUS FORWARD CURRENT, (A) 100 40 10 Tj=25℃ Pulse Width 300u 1% Duty Cycle .6 1.2 1.4 1.6



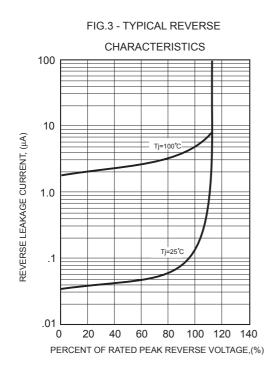


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

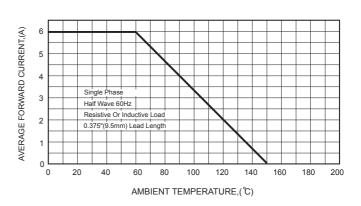


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

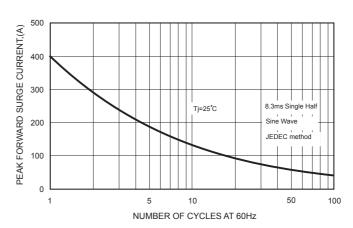


FIG.5 - TYPICAL THERMAL RESISTANCE VS. LEAD LENGTH

