

P600A - P600M

6.0 AMPS Silicon Rectifiers

P-600

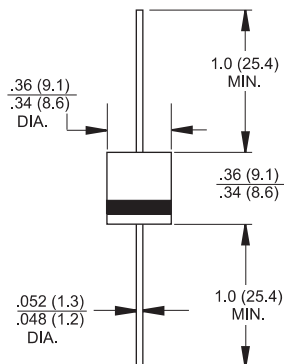


Features

- ✧ High efficiency, Low VF
- ✧ High current capability
- ✧ High reliability
- ✧ High surge current capability
- ✧ Low power loss

Mechanical Data

- ✧ Cases: Molded plastic
- ✧ Epoxy: UL 94V-0 rate flame retardant
- ✧ Lead: Pure tin plated, lead free. solderable per MIL-STD-202, Method 208 guaranteed
- ✧ Polarity: Color band denotes cathode
- ✧ High temperature soldering guaranteed: 260°C/10 seconds/.375", (9.5mm) lead lengths at 5 lbs., (2.3kg) tension
- ✧ Weight: 0.07 ounce, 2.1 grams



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 | Symbol | P600A | P600B | P600D | P600G | P600J | P600K | P600M | Units |
|--|------------------------------------|--------------|-------|-------|-------|-------|-------|-------|---------------------------|
| Maximum Recurrent Peak Reverse Voltage | V_{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum RMS Voltage | V_{RMS} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Maximum DC Blocking Voltage | V_{DC} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum Average Forward Rectified Current at $T_A=60^\circ\text{C}$, 0.375" (9.5mm) Lead Length (Fig 1) $T_L=60^\circ\text{C}$, 0.125" (3.1mm) Lead Length (Fig 2) | $I_{(AV)}$ | 6.0 5.0 | | | | | | | A |
| Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method) | I_{FSM} | 400 | | | | | | | A |
| Maximum Instantaneous Forward Voltage @6.0A @100A | V_F | 1.0 1.3 | | | | | | | V |
| Maximum DC Reverse Current @ $T_A=25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_A=125^\circ\text{C}$ | I_R | 5.0 1.0 | | | | | | | μA mA |
| Typical Junction Capacitance (Note 1) | C_j | 110 | | | | | | | pF |
| Typical Thermal Resistance (Note 2) | $R_{\theta JA}$ $R_{\theta JL}$ | 35 5.0 | | | | | | | $^\circ\text{C}/\text{W}$ |
| Operating Junction and Storage Temperature Range | T_J, T_{STG} | -50 to + 150 | | | | | | | $^\circ\text{C}$ |

- Notes:
1. Measured at 1 MHz and Applied Reverse Voltage of 4.0V D.C.
 2. Mount on Cu-Pad Size 16mm x 16mm on P.C.B.

RATINGS AND CHARACTERISTIC CURVES (P600A THRU P600M)

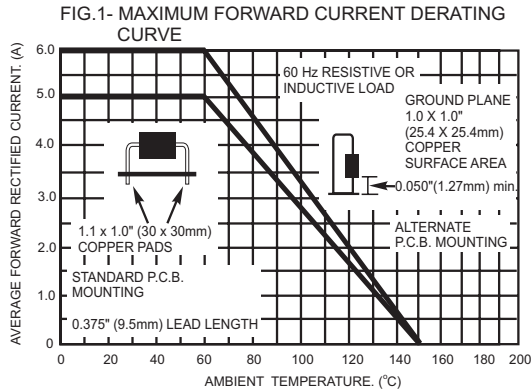


FIG.2- TYPICAL REVERSE CHARACTERISTICS

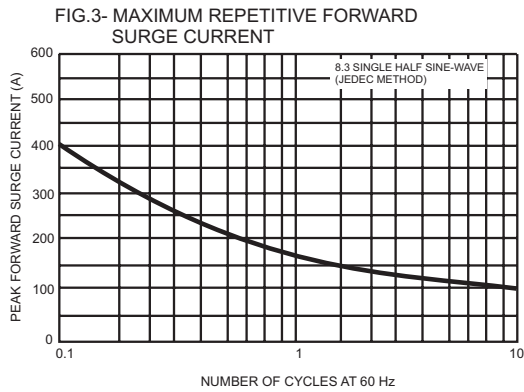
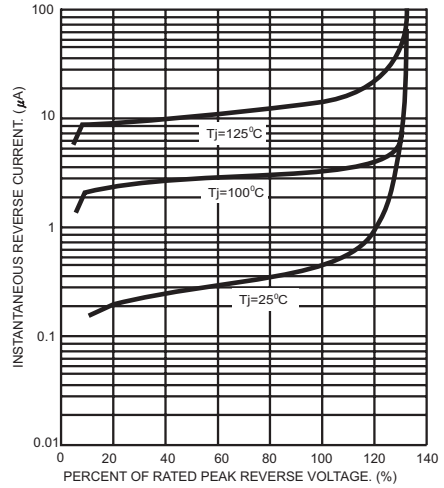


FIG.5- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

