



P600A~P600M

HIGH CURRENT PLASTIC SILICON RECTIFIERS

VOLTAGE 50 to 1000 Volts **CURRENT** 6.0 Amperes

P-600

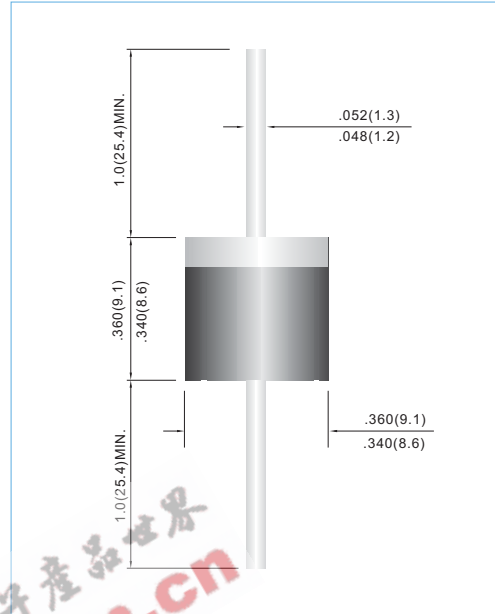
Unit: inch(mm)

FEATURES

- Plastic package has Underwriters Laboratories Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound.
- High current capability.
- Exceeds environmental standards of MIL-S-19500/228
- Low leakage.
- In compliance with EU RoHS 2002/95/EC directives

MECHANICAL DATA

- Case: Molded plastic, P-600
- Terminals: Axial leads, solderable to MIL-STD-750, Method 2026
- Polarity: Color Band denotes cathode
- Mounting Position: Any
- Weight: 0.07 ounce, 2.1 gram



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.
Resistive or inductive load, 60Hz.

| PARAMETER | 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 Current .375" (9.5mm) lead length at $T_A=55^\circ\text{C}$ | $I_{F(AV)}$ | 6.0 | | | | | | | A |
| Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load (JEDEC method) (Note 1) | I_{FSM} | 400 | | | | | | | A |
| Maximum Forward Voltage at 6.0A | V_F | 1.0 | | | | | | | V |
| Maximum DC Reverse Current $T_J=25^\circ\text{C}$ at Rated DC Blocking Voltage $T_J=100^\circ\text{C}$ | I_R | 10 1000 | | | | | | | μA |
| Typical Junction capacitance (Note 2) | C_J | 150 | | | | | | | pF |
| Typical Thermal Resistance (Note 3) | $R_{\theta JA}$ $R_{\theta JL}$ | 20 4.0 | | | | | | | $^\circ\text{C} / \text{W}$ |
| Operating and Storage Temperature Range | T_J, T_{STG} | -55 TO +150 | | | | | | | $^\circ\text{C}$ |

NOTES:

1. Peak forward surge current, per 8.3ms single half- sine-wave superimposed on rated load (JEDEC method)
2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.
3. Thermal resistance from junction to ambient and from junction to lead at 0.375" (9.5mm) P.C.B. mounted with 1.0 x 1.0 (30 x 30mm) copper pads.



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RATING AND CHARACTERISTIC CURVES

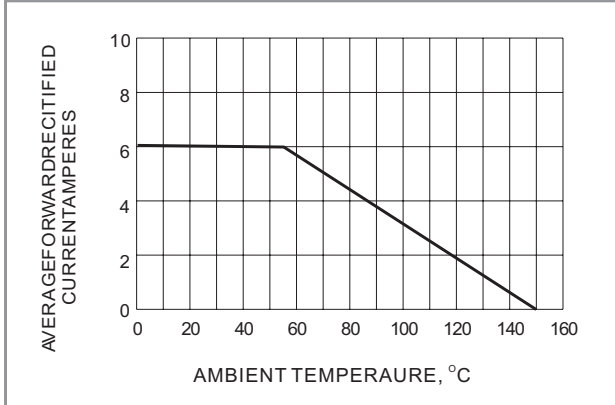


Fig.1- FORWARD CURRENT DERATING CURVE

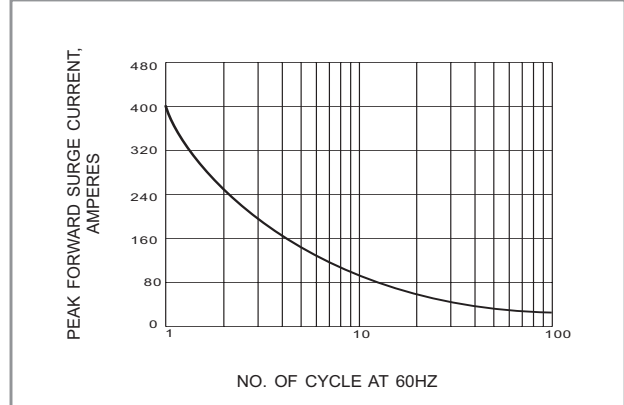


Fig.2- MAXIMUM FORWARD SURGE CURRENT

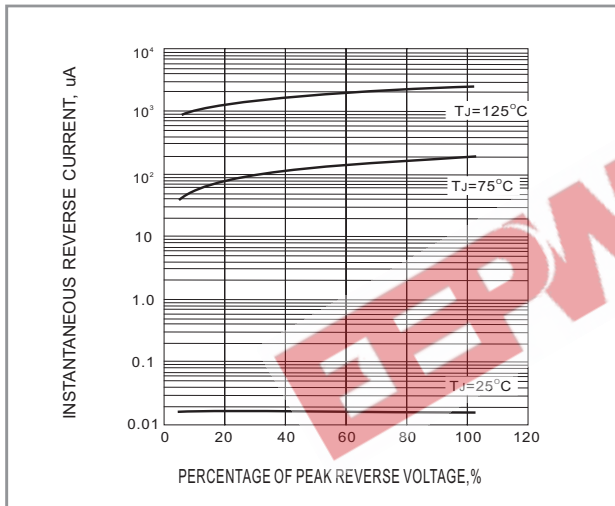


Fig.3- TYPICAL REVERSE CHARACTERISTIC

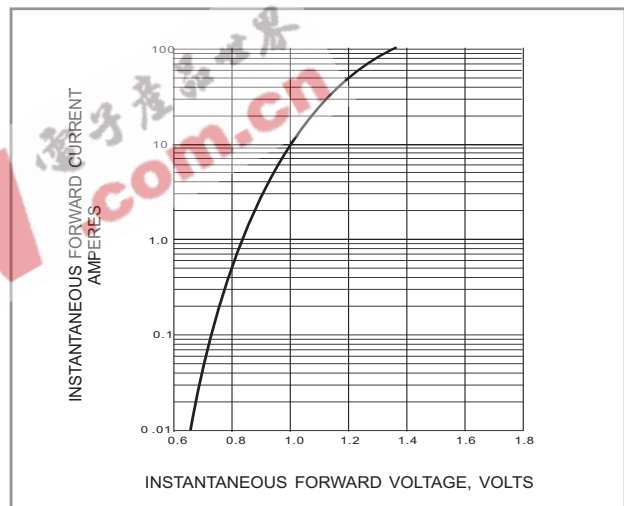


Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

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