



**FEATURES**

- Plastic package has Underwriters Laboratories Flammability Classification 94V-0
- Glass passivated junction
- Capable of meeting environmental standards of MIL-S-19500
- 6.0 Ampere operation at  $T_A=55^{\circ}\text{C}$  with no thermal runaway
- Typical  $I_R$  less than  $0.2\mu\text{A}$
- High temperature soldering guaranteed:  $250^{\circ}\text{C}/10$  seconds,  $0.375"$  (9.5mm) lead length, 5 lbs. (2.3kg) tension

**MECHANICAL DATA**

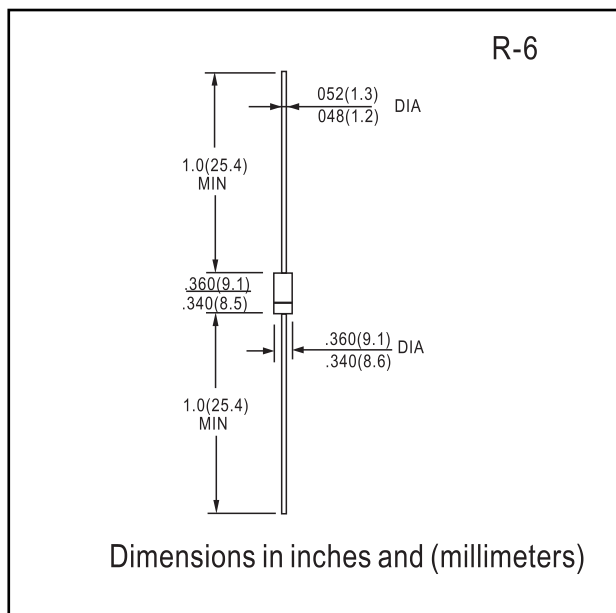
**Case:** P600, molded plastic over glass passivated chip

**Terminals:** Plated axial leads, solderable per MIL-STD-750, Method 2026

**Polarity:** Color band denotes cathode end

**Mounting Position:** Any

**Weight:** 0.07 ounce, 2.0 grams



**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

**Maximum Ratings & Thermal Characteristics**

Ratings at  $25^{\circ}\text{C}$  ambient temperature unless otherwise specified.

| Parameter   | Symb.                              | GPP60A      | GPP60B | GPP60D | GPP60G | Unit                        |
|---|------------------------------------|-------------|--------|--------|--------|-----------------------------|
| Maximum repetitive peak reverse voltage   | $V_{RRM}$                          | 50          | 100    | 200    | 400    | V                           |
| Maximum RMS voltage   | $V_{RMS}$                          | 35          | 70     | 140    | 280    | V                           |
| Maximum DC blocking voltage   | $V_{DC}$                           | 50          | 100    | 200    | 400    | V                           |
| Maximum average forward rectified current<br>0.375" (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                     | $I_{FSM}$                          | 500         |        |        |        | A                           |
| Typical thermal resistance <sup>(1)</sup>   | $R_{\theta JA}$<br>$R_{\theta JL}$ | 20<br>4     |        |        |        | $^{\circ}\text{C}/\text{W}$ |
| Operating junction and storage temperature range  | $T_J, T_{STG}$                     | -55 to +175 |        |        |        | $^{\circ}\text{C}$          |

**Electrical Characteristics**

Ratings at  $25^{\circ}\text{C}$  ambient temperature unless otherwise specified.

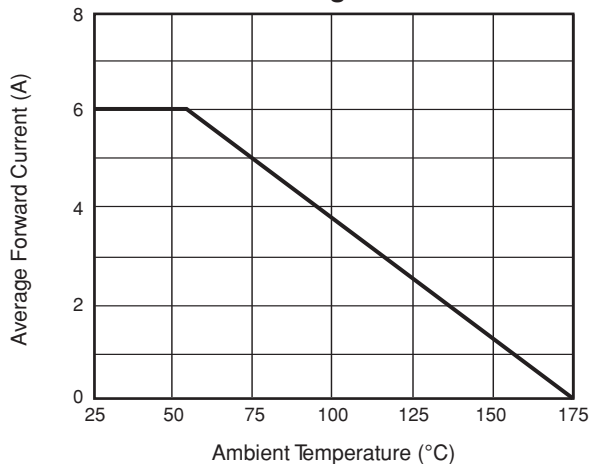
| Parameter  | Symb.    | GPP60A     | GPP60B | GPP60D | GPP60G | Unit          |
|--|----------|------------|--------|--------|--------|---------------|
| Maximum instantaneous forward voltage at 6.0A  | $V_F$    | 1.1        |        |        |        | V             |
| Maximum reverse current<br>$T_A = 25^{\circ}\text{C}$<br>at rated DC blocking voltage<br>$T_A = 100^{\circ}\text{C}$ | $I_R$    | 5.0<br>100 |        |        |        | $\mu\text{A}$ |
| Maximum reverse recovery time<br>$I_F = 0.5\text{A}$ , $I_R = 1.0\text{A}$ , $I_{rr} = 0.25\text{A}$                 | $t_{rr}$ | 5.5        |        |        |        | $\mu\text{s}$ |
| Typical junction capacitance at 4.0V, 1MHz   | $C_J$    | 110        |        |        |        | pF            |

**Note:** (1) Thermal resistance from junction to ambient and from junction to lead at 0.375" (9.5mm) lead length, P.C.B. mounted

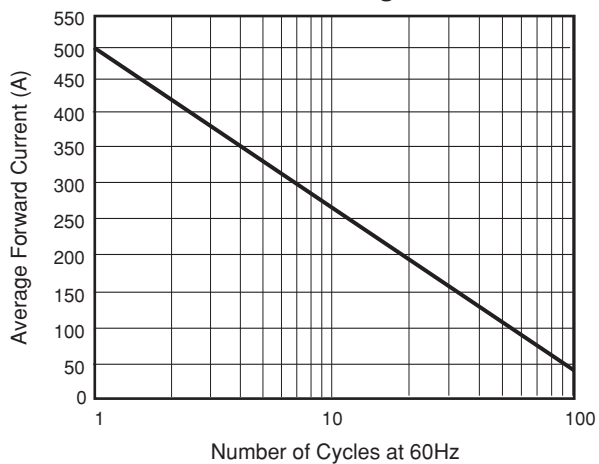


**RATINGS AND CHARACTERISTIC CURVES GPP60A THRU GPP60G**

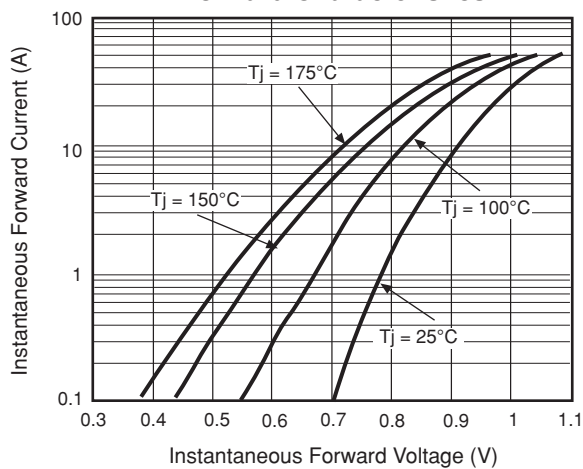
**Fig. 1 – Forward Current Derating Curve**



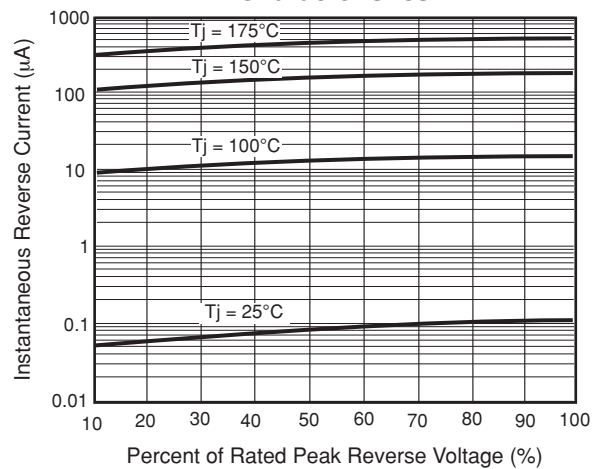
**Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current**



**Fig. 3 – Typical Instantaneous Forward Characteristics**



**Fig. 4 – Typical Reverse Characteristics**



**Fig. 5 – Typical Junction Capacitance**

