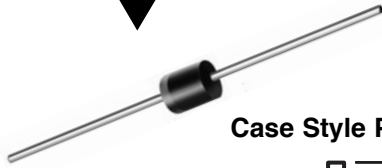




New Product

GPP60A thru GPP60G

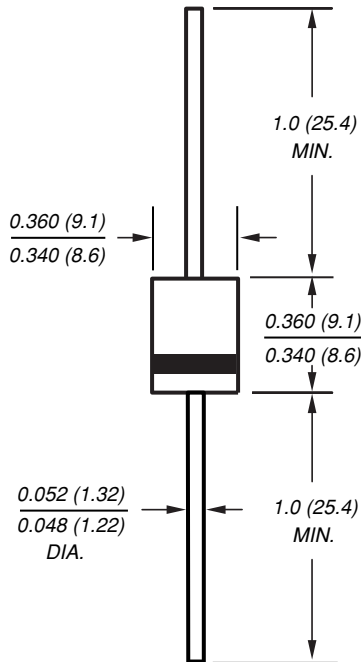
Vishay Semiconductors
formerly General Semiconductor



Glass Passivated Junction Plastic Rectifiers

Reverse Voltage 50 to 400 V
Forward Current 6.0 A

Case Style P600



Dimensions in inches and (millimeters)

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 & Thermal Characteristics Ratings at 25°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 $0.375"$ (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 ⁽¹⁾ | $R_{\theta JA}$ $R_{\theta JL}$ | 20 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°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 $T_A = 25^\circ\text{C}$ at rated DC blocking voltage $T_A = 100^\circ\text{C}$ | I_R | 5.0 100 | | | | μA |
| Maximum reverse recovery time $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $I_{rr} = 0.25\text{A}$ | t_{rr} | 5.5 | | | | μs |
| 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 ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Fig. 1 – Forward Current Derating Curve

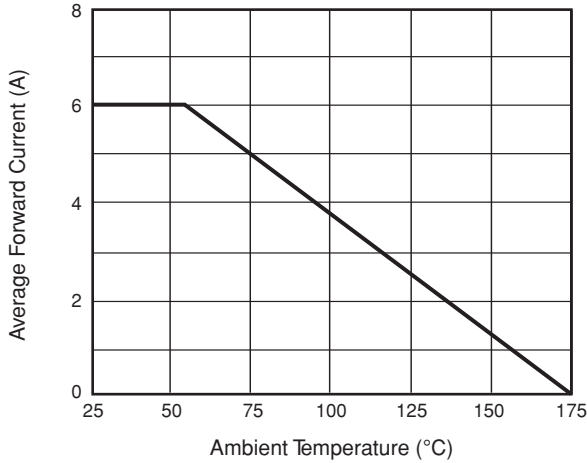


Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current

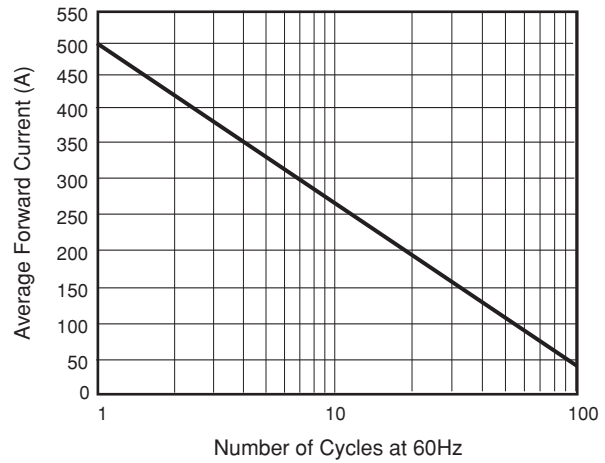


Fig. 3 – Typical Instantaneous Forward Characteristics

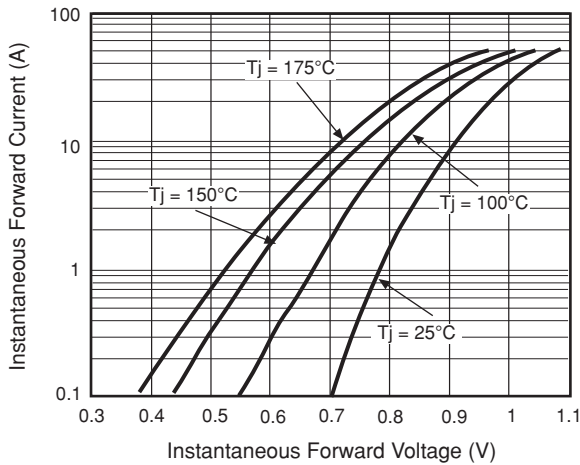


Fig. 4 – Typical Reverse Characteristics

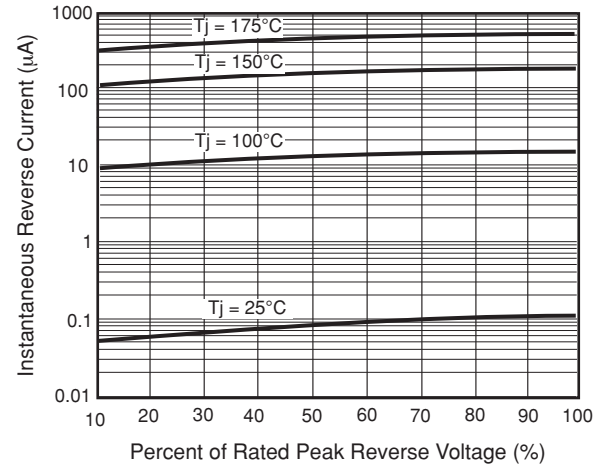


Fig. 5 – Typical Junction Capacitance

