

## Glass Passivated Junction Rectifier

### Major Ratings and Characteristics

$I_{F(AV)}$	6.0 A
$V_{RRM}$	50 V to 400 V
$I_{FSM}$	500 A
$V_F$	1.1 V
$I_R$	5.0 $\mu$ A
$T_j$ max.	150 °C



Case Style P600

### Features

- Glass passivated chip junction
- Low forward voltage drop
- Low leakage current, typical  $I_R$  less than 0.2  $\mu$ A
- High forward surge capability
- Meets environmental standard MIL-S-19500
- Meets MSL level 1, per J-STD-020C

### Mechanical Data

**Case:** P600, molded plastic over passivated junction  
Epoxy meets UL-94V-0 Flammability rating

**Terminals:** Matte tin plated (E3 Suffix) leads, solderable per J-STD-002B and MIL-STD-750, Method 2026

**Polarity:** Color band denotes cathode end

### Typical Applications

For use in general purpose rectification of power supplies, inverters, converters and freewheeling diodes application

### Maximum Ratings

( $T_A = 25$  °C unless otherwise noted)

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" (9.5 mm) lead length at $T_A = 55$ °C	$I_{F(AV)}$	6.0				A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	$I_{FSM}$	500				A
Operating junction and storage temperature range	$T_J, T_{STG}$	- 55 to + 175				°C

### Electrical Characteristics

( $T_A = 25\text{ }^\circ\text{C}$  unless otherwise noted)

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

### Thermal Characteristics

( $T_A = 25\text{ }^\circ\text{C}$  unless otherwise noted)

Parameter	Symb.	GPP60A	GPP60B	GPP60D	GPP60G	Unit
Typical thermal resistance <sup>(1)</sup>	$R_{\theta JA}$ $R_{\theta JL}$	20 4.0				$^\circ\text{C/W}$

Notes:

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

### Ratings and Characteristics Curves

( $T_A = 25\text{ }^\circ\text{C}$  unless otherwise noted)

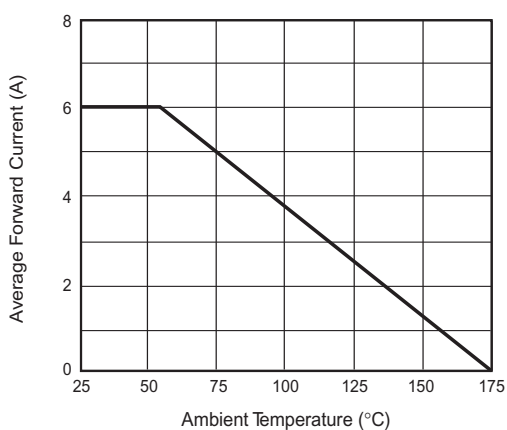


Figure 1. Forward Current Derating Curve

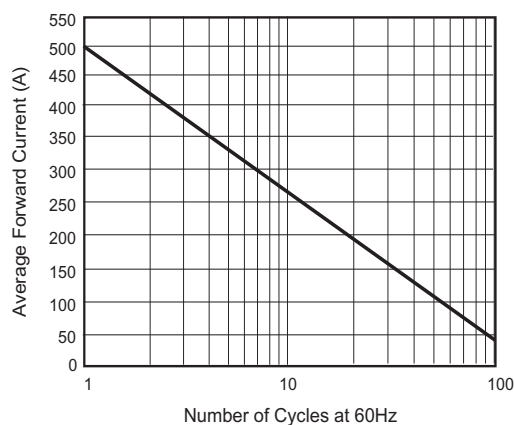


Figure 2. Maximum Non-repetitive Forward Surge Current

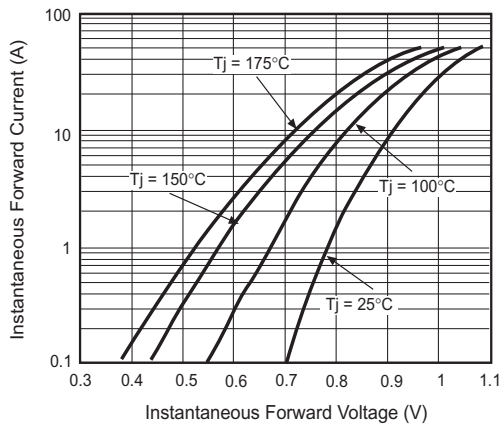


Figure 3. Typical Instantaneous Forward Characteristics

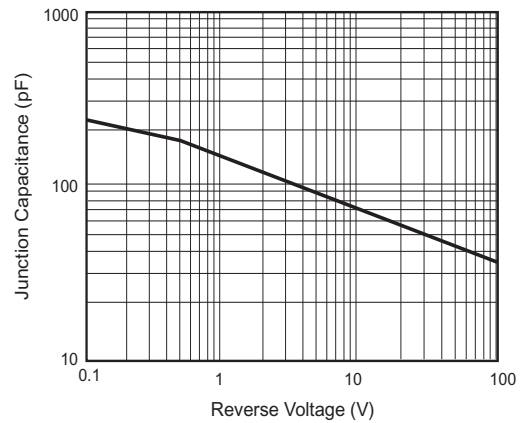


Figure 5. Typical Junction Capacitance

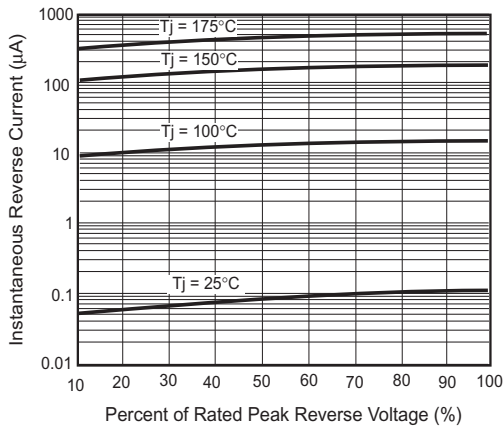


Figure 4. Typical Reverse Characteristics

## Package outline dimensions in inches (millimeters)

