

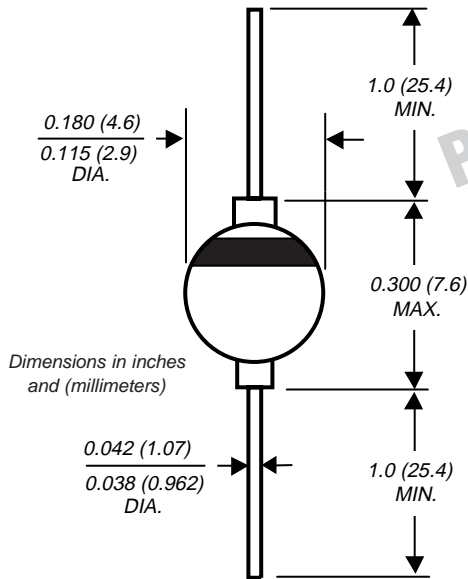
Glass Passivated Junction Rectifiers

Reverse Voltage 50 to 600V
Forward Current 3.0A

Case Style G4

Features

- High temperature metallurgically bonded construction
- Cavity-free glass passivated junction
- Hermetically sealed package
- 3.0 ampere operation at $T_A=75^\circ\text{C}$ with no thermal runaway
- Typical I_R less than $0.1\mu\text{A}$
- Capable of meeting environmental standards of MIL-S-19500
- High temperature soldering guaranteed: $350^\circ\text{C}/10$ seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension



* Brazed-lead assembly is covered by Patent No. 3,930,306

Mechanical Data

- Case:** Solid glass body
- Terminals:** Solder plated axial leads, solderable per MIL-STD-750, Method 2026
- Polarity:** Color band denotes cathode end
- Mounting Position:** Any
- Weight:** 0.037 oz., 1.04 g
- Packaging Codes – Options:**
- 1 – 3K per Bulk box, 18k/ carton
 - 4 – 2K per 13" reel (52.4mm Tape), 8K/carton

Maximum Ratings & Thermal Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	G4A	G4B	G4D	G4G	G4J	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	V
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	V
Maximum average forward rectified current 0.375" (9.5mm) lead length at $T_A = 70^\circ\text{C}$	$I_{F(AV)}$	3.0					A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	100					A
Maximum full load reverse current, full cycle average 0.375" (9.5mm) lead length at $T_A = 70^\circ\text{C}$	$I_{R(AV)}$	200					μA
Typical thermal resistance ⁽¹⁾	$R_{\theta JA}$ $R_{\theta JL}$	22 12					$^\circ\text{C}/\text{W}$
Operating junction and storage temperature range	T_J, T_{STG}	-65 to +175					$^\circ\text{C}$

Electrical Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Maximum instantaneous forward voltage at 3.0A	V_F	1.1	V
Maximum DC reverse current at rated DC blocking voltage	I_R	1.0 100	μA
Typical reverse recovery time at $I_F = 0.5\text{A}, I_R = 1.0\text{A}, I_{rr} = 0.25\text{A}$	t_{rr}	5.0	μs
Typical junction capacitance at 4.0V, 1MHz	C_J	40	pF

Note: (1) Thermal resistance from junction to ambient and from junction to lead at 0.375" (9.5mm) lead length, with both leads mounted between heatsinks

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

Fig. 1 – Maximum Forward Current Derating Curve

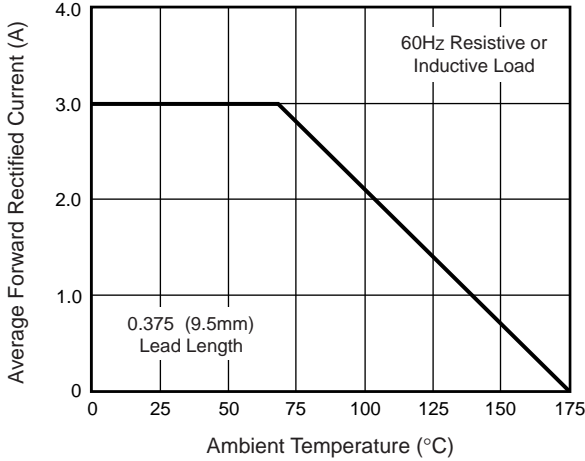


Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current

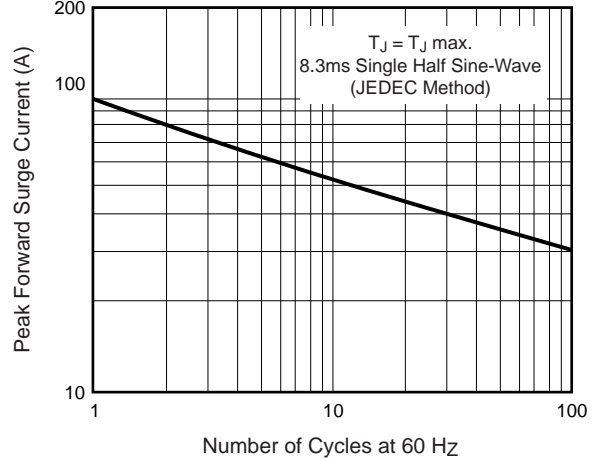


Fig. 3 – Typical Instantaneous Forward Characteristics

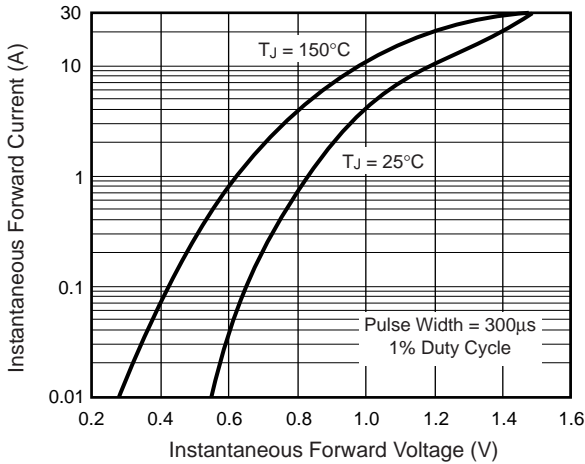


Fig. 4 – Typical Reverse Characteristics

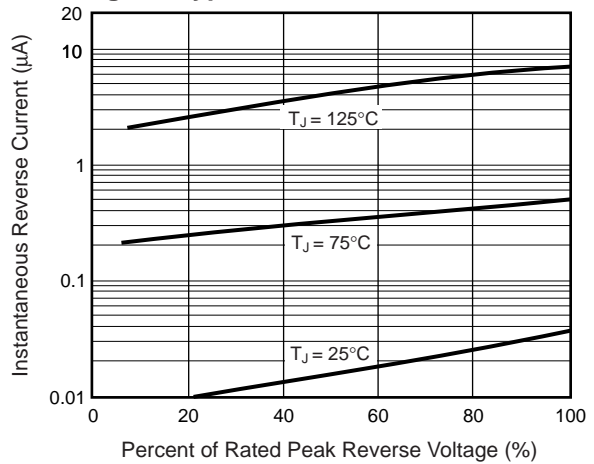


Fig. 5 – Typical Junction Capacitance

