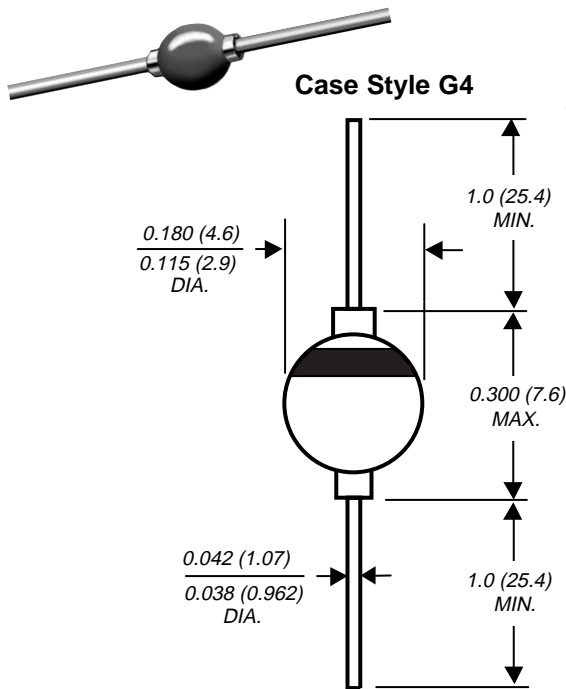


Glass Passivated Junction Rectifier

Reverse Voltage 50 to 600 V

Forward Current 3.0 A



Dimensions in inches and (millimeters)

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

Patented*

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

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 ounce, 1.04 grams

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

	SYMBOLS	G4A	G4B	G4D	G4G	G4J	UNITS
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 (NOTE 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.

	SYMBOLS	G4A	G4B	G4D	G4G	G4J	UNITS
Maximum instantaneous forward voltage at 3.0A	V_F	1.1					V
Maximum DC reverse current at rated DC blocking voltage $T_A=25^\circ\text{C}$ $T_A=100^\circ\text{C}$	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}	3.0					μs
Typical junction capacitance at 4.0V, 1MHz	C_J	40					pF

NOTES:

(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 - FORWARD CURRENT DERATING CURVE

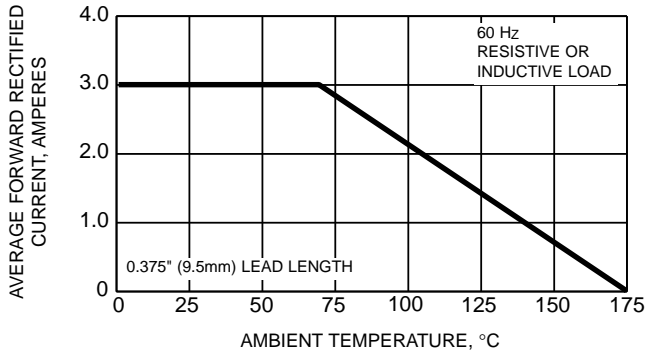


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

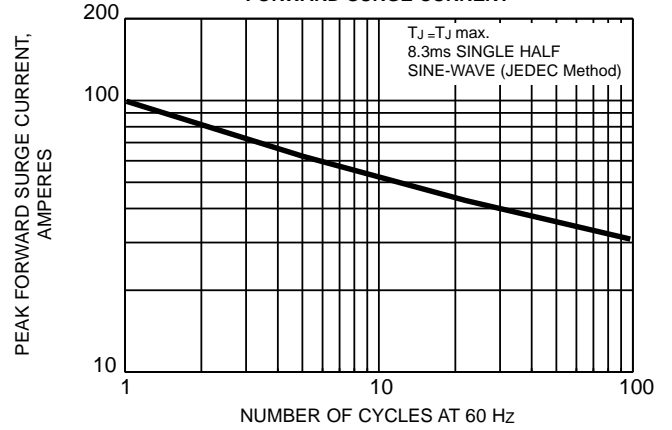


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

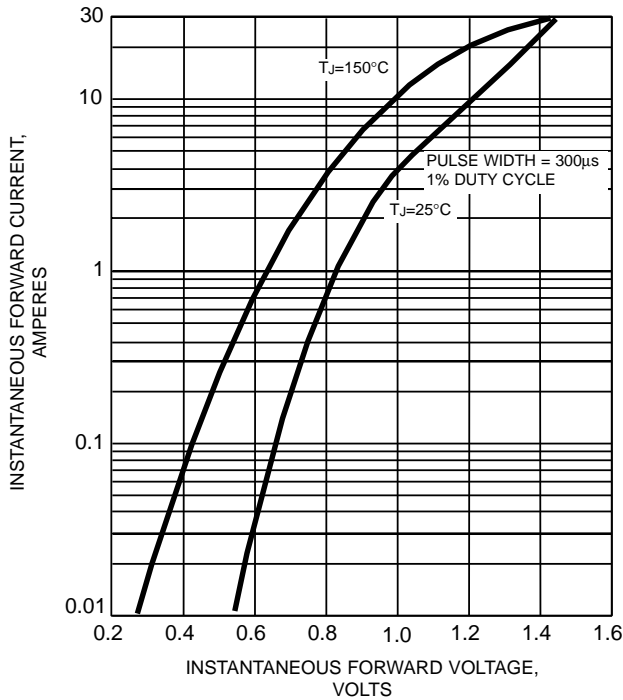


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

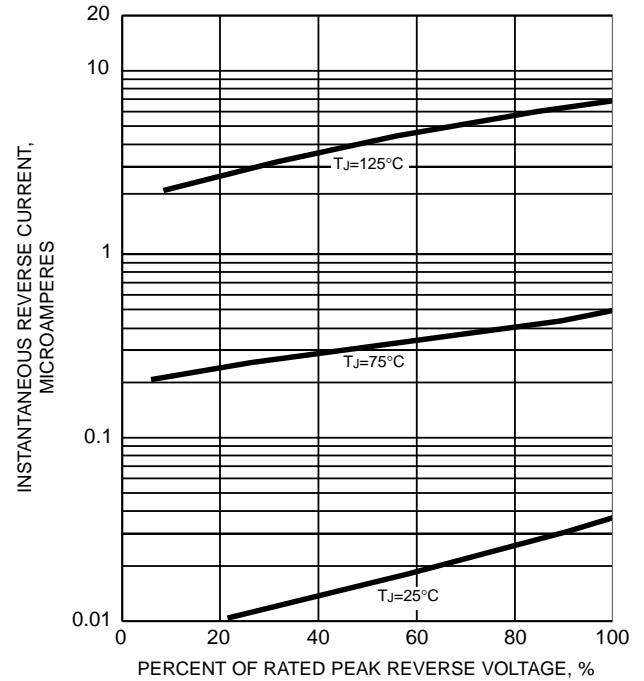


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

