

G4A THRU G4J

GLASS PASSIVATED JUNCTION RECTIFIER

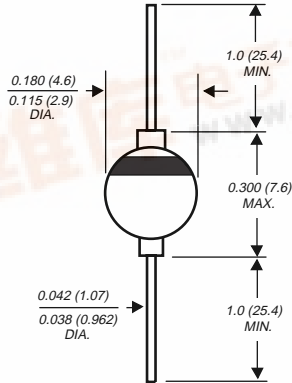
Reverse Voltage - 50 to 600 Volts Forward Current - 3.0 Amperes

FEATURES

- ◆ High temperature metallurgically bonded construction
- ◆ Glass passivated cavity-free 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



Case Style G4



Dimensions in inches and (millimeters)

* 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 ounce, 1.04 grams

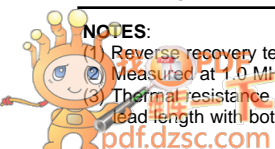
MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	G4A	G4B	G4D	G4G	G4J	UNITS
Maximum repetitive peak reverse voltage	VRRM	50	100	200	400	600	Volts
Maximum RMS voltage	VRMS	35	70	140	280	420	Volts
Maximum DC blocking voltage	VDC	50	100	200	400	600	Volts
Maximum average forward rectified current, 0.375" (9.5mm) lead length at $T_A=70^\circ\text{C}$	I(AV)	3.0					Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	100.0					Amps
Maximum instantaneous forward voltage at 3.0A	VF	1.1					Volts
Maximum full load reverse current full cycle average, 0.375" (9.5mm) lead length at $T_A=70^\circ\text{C}$	IR(AV)	200.0					μA
Maximum DC reverse current at rated DC blocking voltage	I_R	$T_A=25^\circ\text{C}$: 1.0 $T_A=100^\circ\text{C}$: 100.0					μA
Typical reverse recovery time (NOTE 1)	t _{rr}	3.0					μs
Typical junction capacitance (NOTE 2)	C _J	40.0					pF
Typical thermal resistance (NOTE 3)	R _{θJA} R _{θJL}	22.0 12.0					$^\circ\text{C}/\text{W}$
Operating junction and storage temperature range	T _J , T _{STG}	-65 to +175					$^\circ\text{C}$

NOTES:

- (1) Reverse recovery test conditions: $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{rr}=0.25\text{A}$
Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts
- (2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts
- (3) 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 G4A AND G4J

FIG. 1 - FORWARD CURRENT DERATING CURVE

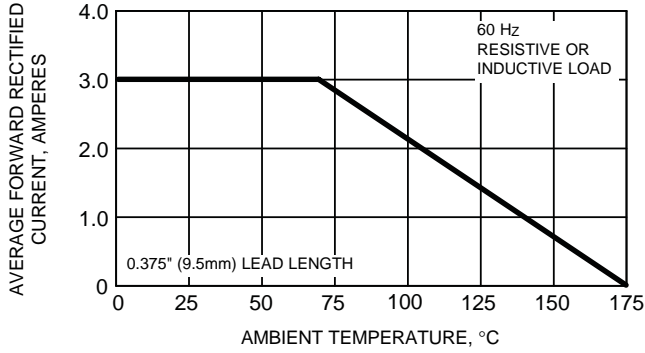


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

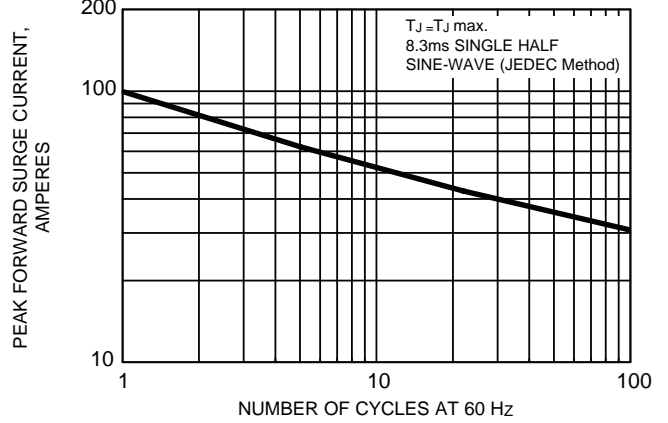


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

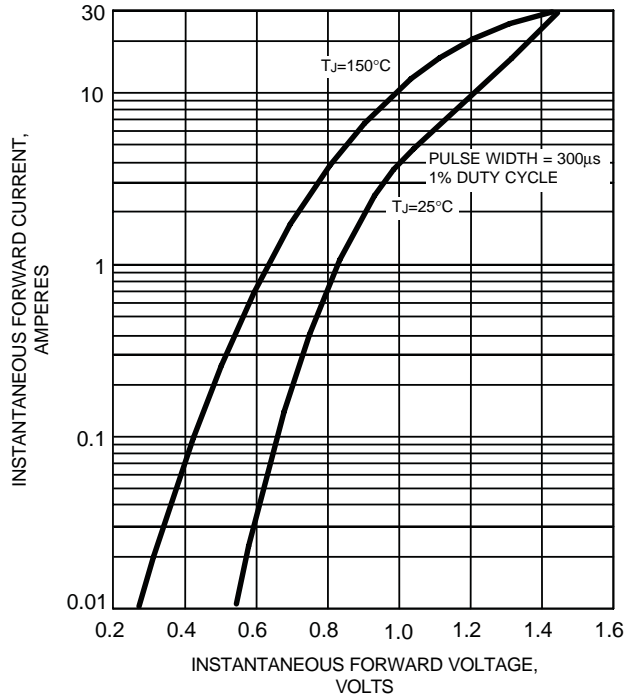


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

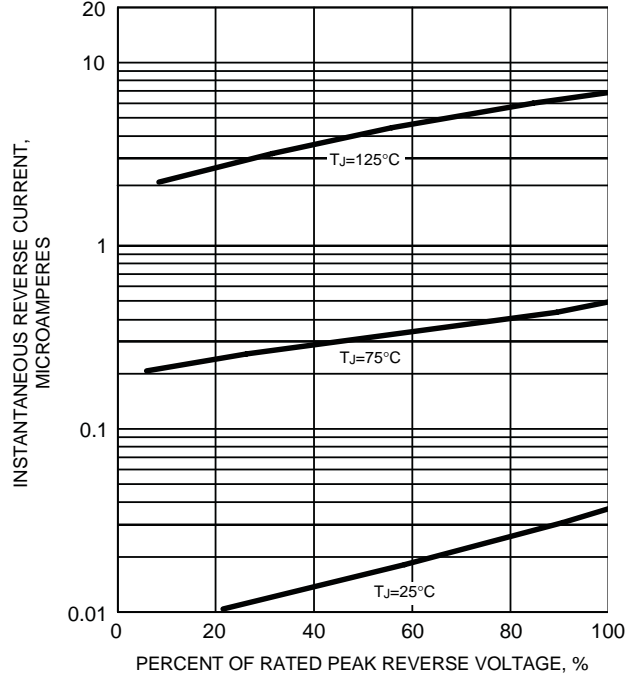


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

