Silicon Diode

G4G

400V / 3A

DATASHEET

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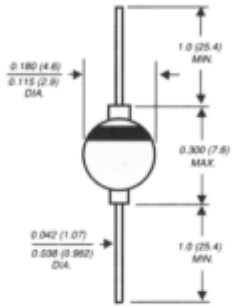
G4A THRU G4J

GLASS PASSIVATED JUNCTION RECTIFIER

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

PATENTED*

Case Style G4



Dimensions in inches and (millimeters)

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

FEATURES

- High temperature metallurgically bonded construction
- Glass passivated cavity-free junction
- Hermetically sealed package
- 3.0 Ampere operation at T_A=75°C with no thermal runaway
- Typical I_R less than 0.1µA
- Capable of meeting environmental standards of MIL-S-19500
- High temperature soldering guaranteed: 350°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 AND ELECTRICAL 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	Volts
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	Volts
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	Volts
Maximum average forward rectified current, 0.375" (9.5mm) lead length at T_A=70°C	$I_{(AV)}$	3.0					Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	100.0					Amps
Maximum instantaneous forward voltage at 3.0A	V_F	1.1					Volts
Maximum full load reverse current full cycle average, 0.375" (9.5mm) lead length at T_A=70°C	$I_{R(AV)}$	200.0					µA
Maximum DC reverse current at rated DC blocking voltage T_A=25°C / T_A=100°C	I_R	1.0 / 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)	$R_{\theta JA}$ / $R_{\theta JL}$	22.0 / 12.0					°C/W
Operating junction and storage temperature range	T_J, T_{STG}	-65 to +175					°C

NOTES:
(1) Reverse recovery test conditions: I_F=0.5A, I_R=1.0A, I_{rr}=0.25A
(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

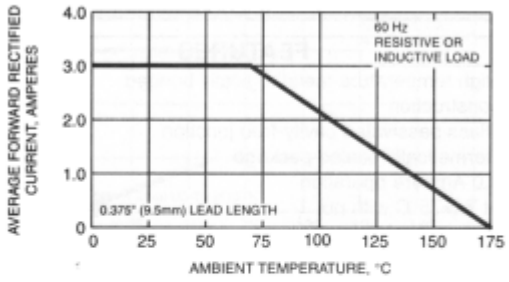


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

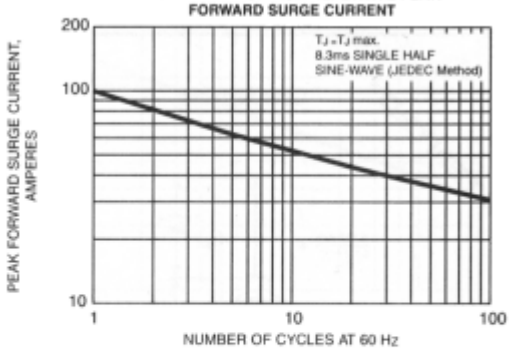


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

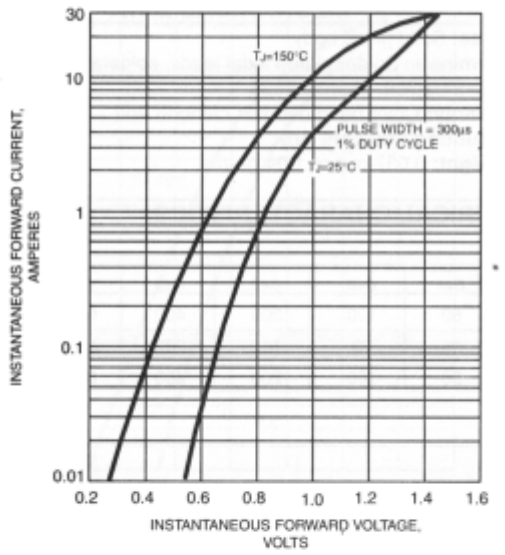


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

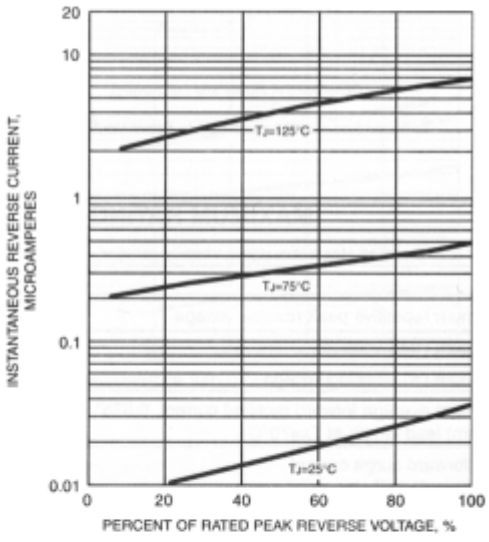


FIG. 5 - TYPICAL JUNCTION CAPACITANCE