

RG4A THRU RG4J

GLASS PASSIVATED FAST SWITCHING RECTIFIER

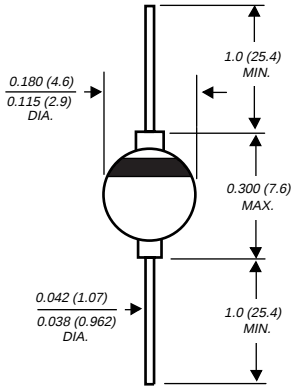
Reverse Voltage - 50 to 600 Volts Forward Current - 3.0 Amperes

FEATURES

- ♦ High temperature metallurgically bonded construction
- ♦ Glass passivated cavity-free junction
- ♦ Capable of meeting environmental standards of MIL-S-19500
- ♦ Fast switching for fast efficiency
- ♦ 3.0 Ampere operation at $T_A=50^{\circ}\text{C}$ with no thermal runaway
- ♦ Typical I_R less than $0.1\mu\text{A}$
- ♦ Hermetically sealed package
- ♦ 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	RG4A	RG4B	RG4D	RG4G	RG4J	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 lengths at $T_A=55^{\circ}\text{C}$	$I_{(AV)}$	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	1.3					Volts
Maximum reverse current at rated DC blocking voltage	I_R	5.0					μA
Maximum average reverse current at peak reverse voltage $T_A=25^{\circ}\text{C}$ $T_A=100^{\circ}\text{C}$	$I_{R(AV)}$	2.0 100.0					μA
Maximum reverse recovery time (NOTE 1)	t_{rr}	150				250	ns
Typical junction capacitance (NOTE 2)	C_J	50.0					pF
Typical thermal resistance (NOTE 3)	$R_{\theta JA}$	22.0					$^{\circ}\text{C}/\text{W}$
Operating junction and storage temperature range	T_J, T_{STG}	-65 to +175					$^{\circ}\text{C}$

NOTES:

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

(2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts

(3) Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, with both leads to heat sink

RATINGS AND CHARACTERISTIC CURVES RG4A AND RG4J

