



RGP15A THRU RGP15M

1.5 AMPS. Glass Passivated Junction Fast Recovery Rectifiers



Voltage Range
50 to 1000 Volts
Current
1.5 Amperes

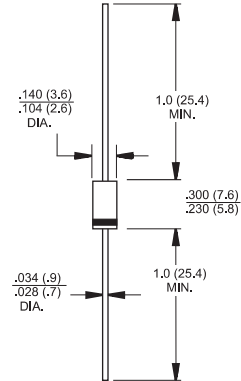
Features

- ✦ High temperature metallurgically bonded constructed
- ✦ Plastic material used carries Underwriters Laboratory Classification 94V-0
- ✦ Glass passivated cavity-free junction
- ✦ Capable of meeting environmental standards of MIL-S-19500
- ✦ 1.5 amperes operation at $T_A=50^{\circ}\text{C}$ with no thermal runaway
- ✦ Typical I_R less than 0.1 uA
- ✦ High temperature soldering guaranteed: $350^{\circ}\text{C}/10\text{seconds}/.375''(9.5\text{mm})$ lead length at 5 lbs., 2.3 kg tension

Mechanical Data

- ✦ Cases: JEDEC DO-15 molded plastic over glass body
- ✦ Lead: Plated Axial leads, solderable per MIL-STD-750, Method 2026
- ✦ Polarity: Color band denotes cathode end
- ✦ Mounting position: Any
- ✦ Weight: 0.015 ounce, 0.4 gram

DO-15



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%

Type Number	Symbol	RGP 15A	RGP 15B	RGP 15D	RGP 15G	RGP 15J	RGP 15K	RGP 15M	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current .375" (9.5mm) Lead Length @ $T_A = 55^{\circ}\text{C}$	$I_{(AV)}$	1.5							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	50.0							A
Maximum Instantaneous Forward Voltage @ 1.5A	V_F	1.3							V
Maximum Full Load Reverse Current, Full Cycle Average 0.375" (9.3mm) Lead Length at $T_A=55^{\circ}\text{C}$	HT_{IR}	100							uA
Maximum DC Reverse Current @ $T_A=25^{\circ}\text{C}$ at Rated DC Blocking Voltage @ $T_A=150^{\circ}\text{C}$	I_R	5.0 200							uA uA
Maximum Reverse Recovery Time (Note 1)	T_{rr}	150				250	500		nS
Typical Junction Capacitance (Note 2)	C_j	15							pF
Typical Thermal Resistance (Note 3)	$R_{\theta JA}$	60							$^{\circ}\text{C}/\text{W}$
Operating 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 $V_R=4.0$ Volts

3. Mount on Cu-Pad Size 10mm x 10mm on P.C.B.

RATINGS AND CHARACTERISTIC CURVES (RGP15A THRU RGP15M)

FIG. 1- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

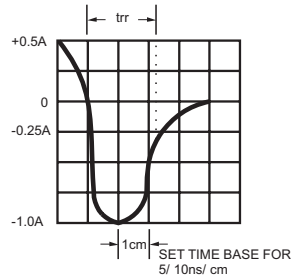
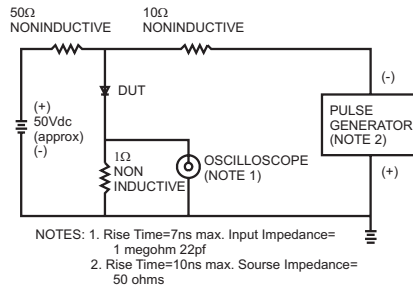


FIG. 2- MAXIMUM FORWARD CURRENT DERATING CURVE

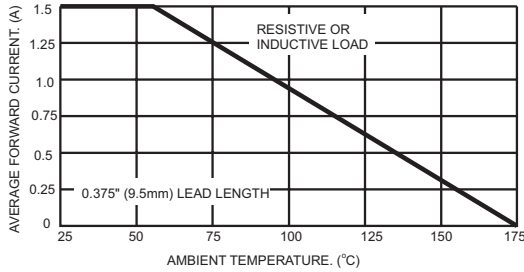


FIG. 5- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

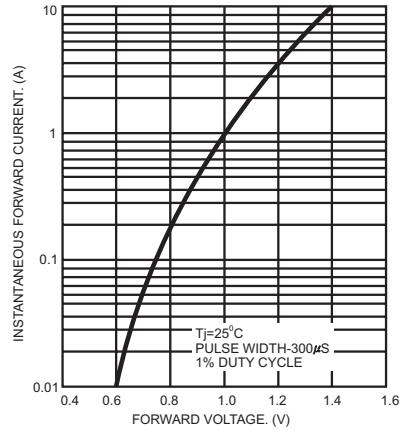


FIG. 3- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

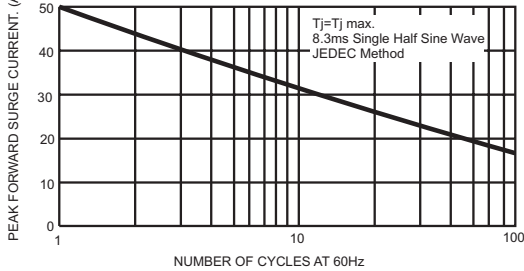


FIG. 6- TYPICAL REVERSE CHARACTERISTICS

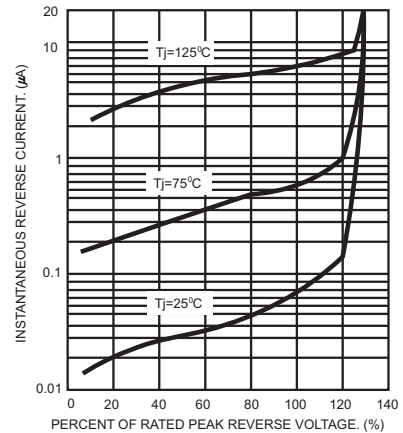


FIG. 4- TYPICAL JUNCTION CAPACITANCE

