FCI Semiconductor

Preliminary Data Sheet

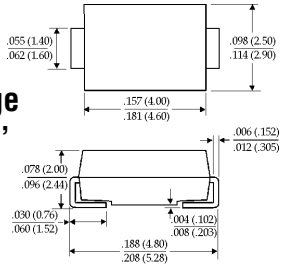
1.5 Amp Glass Passivated Sintered Fast Recovery Rectifiers

RGFZ15A . . . 15M Series

Description

Mechanical Dimensions

Package "SMA"



Dimensions in inches and (millimeters)

Features

- **LOWEST COST FOR GLASS SINTERED FAST RECOVERY CONSTRUCTION**
- **LOWEST V_F FOR GLASS SINTERED FAST RECOVERY CONSTRUCTION**
- **TYPICAL I_R < 100 nAmps**
- **1.5 AMP OPERATION @ T_A = 55°C, WITH NO THERMAL RUNAWAY**
- **SINTERED GLASS CAVITY-FREE JUNCTION**

Electrical Characteristics @ 25°C.	RGFZ15A . . . 15M Series							Units
Maximum Ratings	**15A**	**15B**	**15D**	**15G**	**15J**	**15K**	**15M**	
Peak Repetitive Reverse Voltage...V_{RRM}	50	100	200	400	600	800	1000	Volts
RMS Reverse Voltage...$V_{R(rms)}$	35	70	140	280	420	560	700	Volts
DC Blocking Voltage...V_{DC}	50	100	200	400	600	800	1000	Volts
Average Forward Rectified Current...$I_{F(av)}$ @ T_L = 55°C *(Note 2)*	..... 1.5							Amps
Non-Repetitive Peak Forward Surge Current...I_{FSM} 8.3mS, ½ Sine Wave Superimposed on Rated Load	..... 50							Amps
Forward Voltage @ 1.5A...V_F	..... 1.3							Volts
Full Load Reverse Current...I_R(av) Full Cycle Average @ T_A = 55°C	..... 100							µAmps
DC Reverse Current...$I_{R(max)}$ T_A = 25°C	..... 5.0							
@ Rated DC Blocking Voltage T_A = 150°C	..... 200							µAmps
Typical Junction Capacitance...C_J *(Note 1)*	..... 25							pF
Typical Thermal Resistance...$R_{\theta JA}$ *(Note 2)*	..... 45							°C/W
Maximum Reverse Recovery Time...t_{RR} *(Note 3)*	< ..... 150 ..... >				250	< ..... 500 ..... >		nS
Operating & Storage Temperature Range...T_J, T_{STRG}	..... -65 to 175							°C

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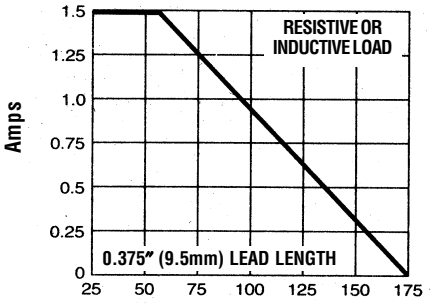
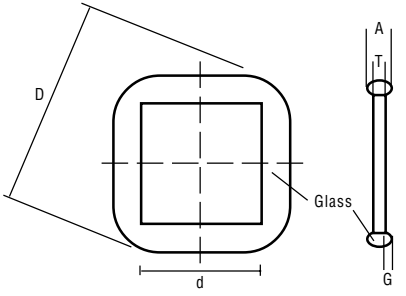
1.5 Amp Glass Passivated Sintered Fast Switching Rectifiers

RGFZ15A . . . 15M Series

Forward Current Derating Curve

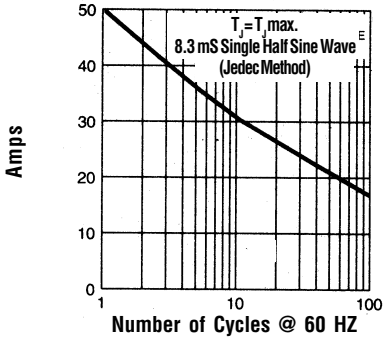


Die Dimension (mils)

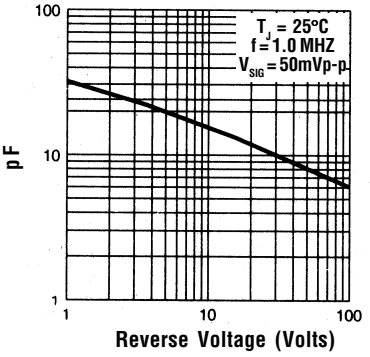


D	d	G	T	A
84	56	2±0.5	11	15±1

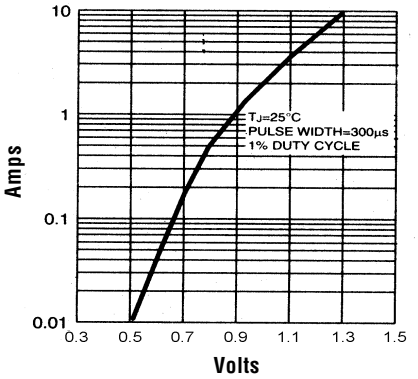
Non-Repetitive Peak Forward Surge Current



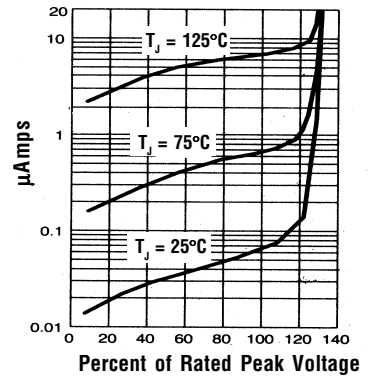
Typical Junction Capacitance



Typical Instantaneous Forward Characteristics



Typical Reverse Characteristics



Ratings at 25 Deg. C ambient temperature unless otherwise specified.

Single Phase Half Wave, 60 HZ Resistive or Inductive Load.

For Capacitive Load, Derate Current by 20%.

NOTES: 1. Measured @ 1 MHZ and applied reverse voltage of 4.0V.
2. 5.0mm² (.013mm thick) land areas.
3. Reverse Recovery Condition I_F = 0.5A, I_R = 1.0A, I_{RR} = 0.25A.