Semiconductor

Preliminary Data Sheet

3.0 Amp Glass Passivated Sintered Fast Recovery Rectifiers

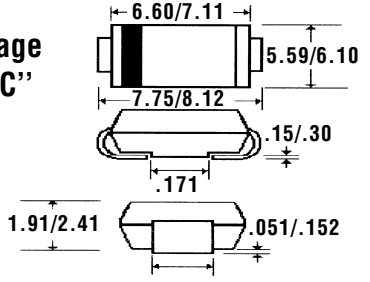
RGFZ30A . . . 30M Series

Description

OMNIPAK™ INSIDE

Mechanical Dimensions

Package "SMC"



Features

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

Electrical Characteristics @ 25°C.	***RGFZ30A . . . 30M Series***							**Units**
Maximum Ratings	**30A**	**30B**	**30D**	**30G**	**30J**	**30K**	**30M**	
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...$I_{F(av)}$ Current 3/8" Lead Length @ T_A = 55°C	..... 3.0							Amps
Non-Repetitive Peak Forward Surge Current...I_{FSM} 8.3mS, ½ Sine Wave Superimposed on Rated Load	..... 125							Amps
Forward Voltage @ 3.0A...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 = 125°C	..... 100							µAmps
Typical Junction Capacitance...C_J *(Note 1)*	..... 60							pF
Typical Thermal Resistance...$R_{\theta JA}$ *(Note 2)*	..... 15							°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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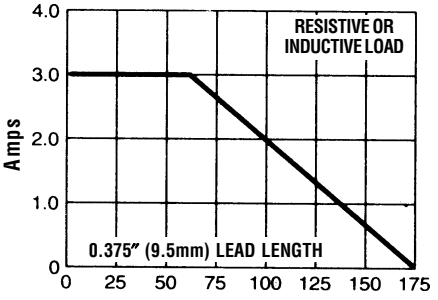
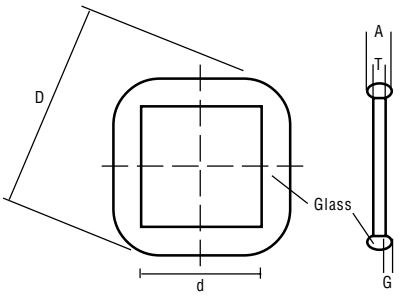
3.0 Amp Glass Passivated Sintered Fast Switching Rectifiers

RGFZ30A . . . 30M Series

Forward Current Derating Curve

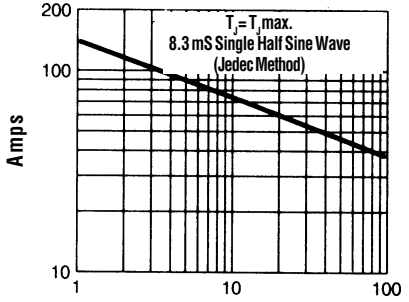


Die Dimension (mils)

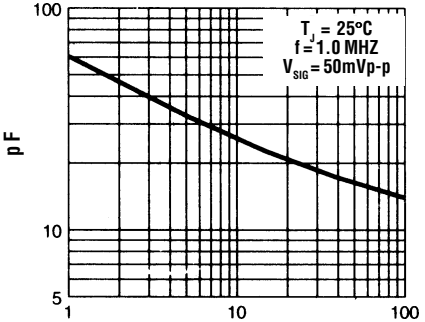


D	d	G	T	A
126	86	2±0.5	11	15±1

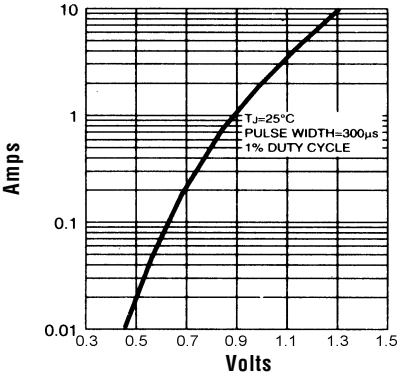
Non-Repetitive Peak Forward Surge Current



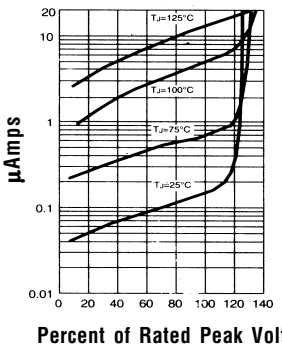
Typical Junction Capacitance



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.