

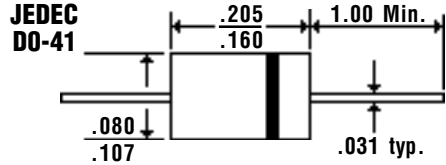
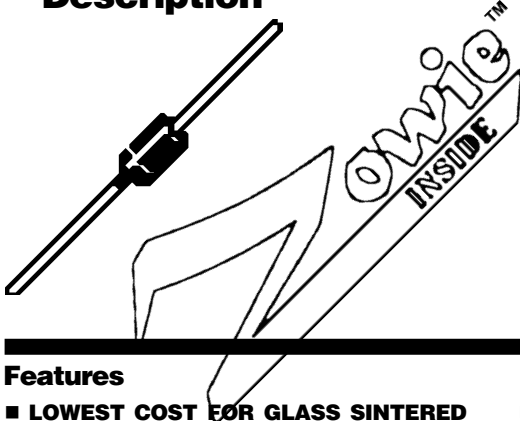


# 1.0 Amp Glass Passivated Sintered Fast Switching Rectifiers

## Description

## Mechanical Dimensions

**RGPZ10A . . . 10M Series**



### Features

- **LOWEST COST FOR GLASS SINTERED FAST SWITCHING CONSTRUCTION**
- **LOWEST  $V_f$  FOR GLASS SINTERED FAST SWITCHING CONSTRUCTION**
- **TYPICAL  $I_r < 100$  nAmps**
- **1.0 AMP OPERATION @  $T_A = 55^\circ\text{C}$ , WITH NO THERMAL RUNAWAY**
- **SINTERED GLASS CAVITY-FREE JUNCTION**

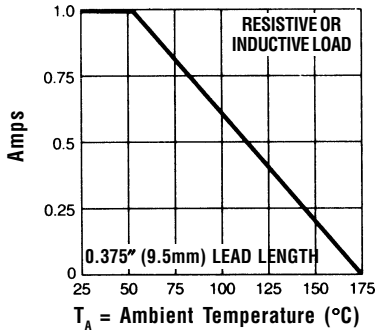
Electrical Characteristics @ 25°C.	RGPZ10A . . . 10M Series							Units
Maximum Ratings	10A	10B	10D	10G	10J	10K	10M	
Peak Repetitive Reverse Voltage... $V_{RRM}$	50	100	200	400	600	800	1000	Volts
RMS Reverse Voltage... $V_{R(rms)}$	35	70	140	280	420	560	700	Volts
DC Blocking Voltage... $V_{DC}$	50	100	200	400	600	800	1000	Volts
Average Forward Rectified Current... $I_{F(av)}$ Current 3/8" Lead Length @ $T_A = 55^\circ\text{C}$				1.0				Amps
Non-Repetitive Peak Forward Surge Current... $I_{FSM}$ 8.3mS, 1/2 Sine Wave Superimposed on Rated Load				30				Amps
Forward Voltage @ 1.0A... $V_f$				1.2				Volts
Full Load Reverse Current... $I_r(av)$ Full Cycle Average @ $T_A = 55^\circ\text{C}$				100				$\mu\text{Amps}$
DC Reverse Current... $I_{R(max)}$ @ Rated DC Blocking Voltage				$T_A = 25^\circ\text{C}$ ..... 5.0 $T_A = 150^\circ\text{C}$ ..... 200				$\mu\text{Amps}$ $\mu\text{Amps}$
Typical Junction Capacitance... $C_j$ (Note 1)				15				pF
Maximum Thermal Resistance... $R_{\theta JA}$ (Note 2)				55				$^\circ\text{C/W}$
Maximum Reverse Recovery Time... $t_{RR}$ (Note 3)	< ..... 150			> 250	< ..... 500			nS
Operating & Storage Temperature Range... $T_J, T_{STRG}$	-65 to 175							$^\circ\text{C}$



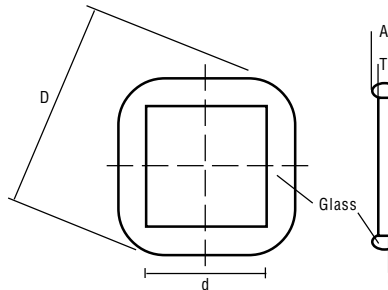
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**RGPZ10A . . . 10M Series**

**Forward Current Derating Curve**

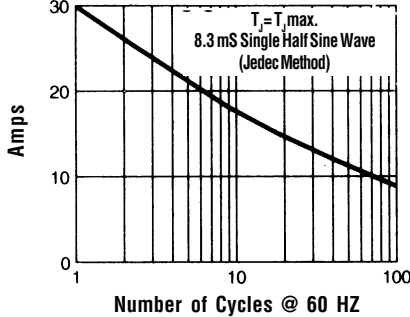


**Die Dimension (mils)**

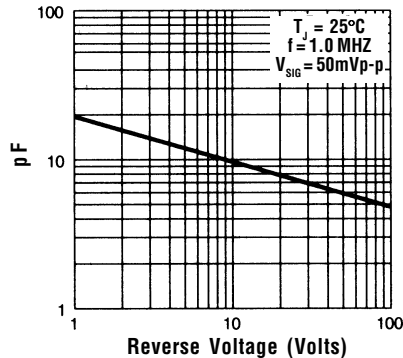


D	d	G	T	A
68	43	2±0.5	11	15±1

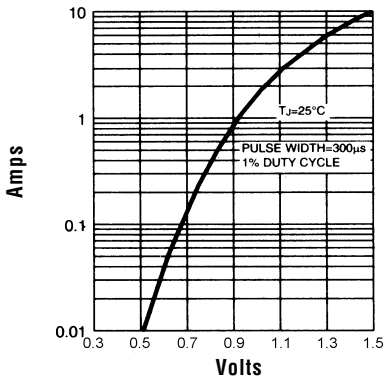
**Non-Repetitive Peak Forward Surge Current**



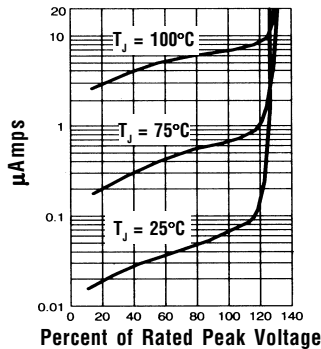
**Typical Junction Capacitance**



**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. Thermal Resistance from Junction to Ambient at 3/8" Lead Length, P.C. Board Mounted.
  3. Reverse Recovery Condition  $I_F = 0.5A$ ,  $I_R = 1.0A$ ,  $I_{RR} = 0.25A$ .