FCI Semiconductor

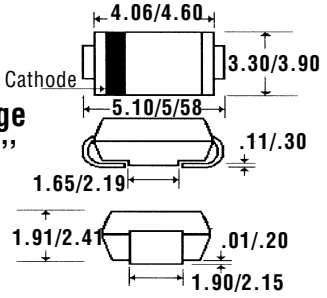
*Preliminary Data Sheet*

# 2.0 Amp Glass Passivated Sintered Rectifiers

**GFZ20A . . . 20M Series**

## Description

## Mechanical Dimensions




### Features

- **LOWEST COST FOR GLASS SINTERED CONSTRUCTION**
- **LOWEST $V_F$ FOR GLASS SINTERED CONSTRUCTION**
- **TYPICAL $I_R$ < 100 nAmps**
- **2.0 AMP OPERATION @ $T_A$ = 125°C, WITH NO THERMAL RUNAWAY**
- **SINTERED GLASS CAVITY-FREE JUNCTION**

| **Electrical Characteristics @ 25°C.** | ***GFZ20A . . . 20M Series*** | | | | | | | **Units** |
|---|---|---|---|---|---|---|---|---|
| **Maximum Ratings** | **20A** | **20B** | **20D** | **20G** | **20J** | **20K** | **20M** | |
| 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...$I_{F(av)}$ @ $T_L$ = 125°C *(Note 2)* | ..... 2.0 ..... | | | | | | | Amps |
| Non-Repetitive Peak Forward Surge Current...$I_{FSM}$ 8.3mS, ½ Sine Wave Superimposed on Rated Load | ..... 65 ..... | | | | | | | Amps |
| Forward Voltage @ 2.0A...$V_F$ | < ..... 1.1 ..... > | | | | < ..... 1.2 .... > | | | 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 | ..... 100 ..... | | | | | | | µAmps |
| Typical Junction Capacitance...$C_J$ *(Note 1)* | ..... 20 ..... | | | | | | | pF |
| Typical Thermal Resistance...$R_{\theta JA}$ *(Note 2)* | ..... 16 ..... | | | | | | | °C/W |
| Typical Reverse Recovery Time...$t_{RR}$ *(Note 3)* | ..... 2.5 ..... | | | | | | | µS |
| Operating & Storage Temperature Range...$T_J$, $T_{STRG}$ | ..... -65 to 175 ..... | | | | | | | °C |

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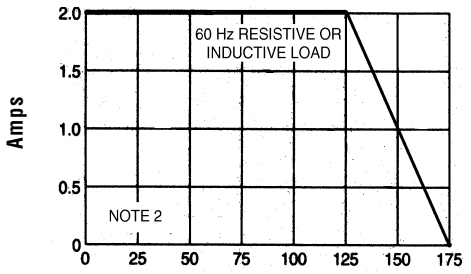
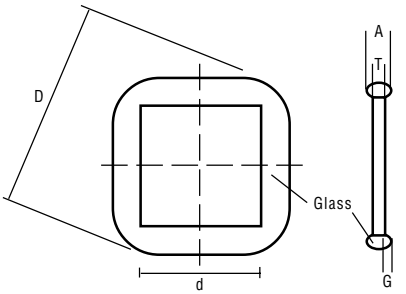
### Forward Current Derating Curve

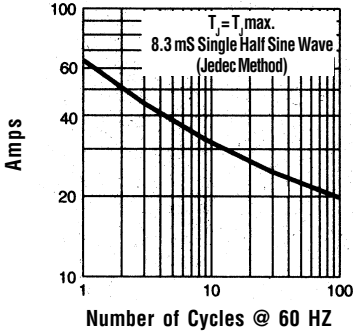



### Die Dimension (mils)

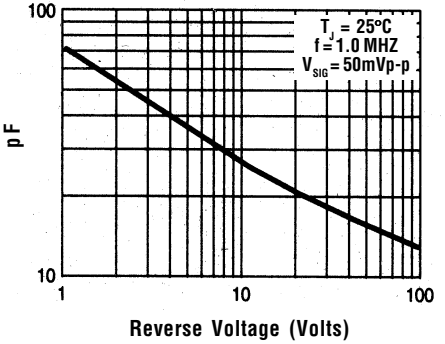



| D | d | G | T | A |
|---|---|---|---|---|
| 96 | 64 | 2±0.5 | 11 | 15±1 |

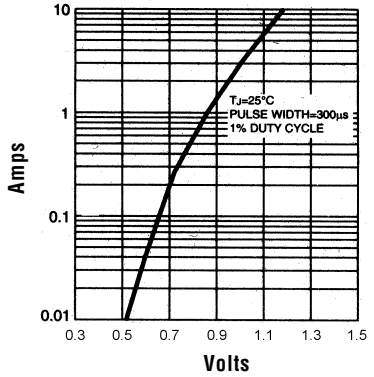
### Non-Repetitive Peak Forward Surge Current



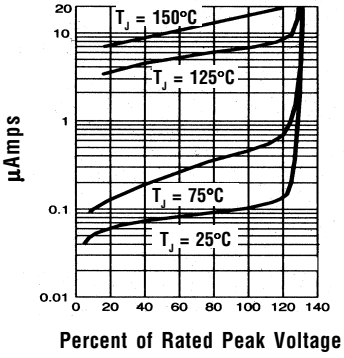

### Typical Junction Capacitance




### 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.