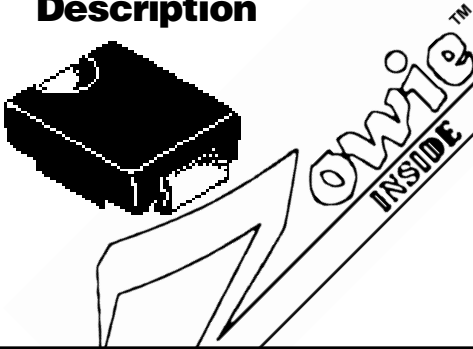




3.0 Amp Glass Passivated Sintered Rectifiers

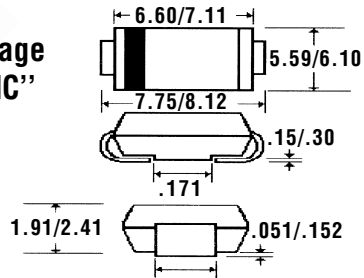
GFZ3A . . . 3M Series

Description



Mechanical Dimensions

Package "SMC"

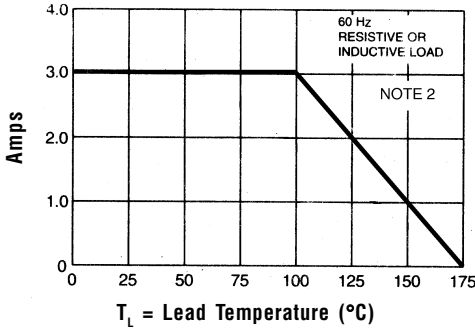


Features

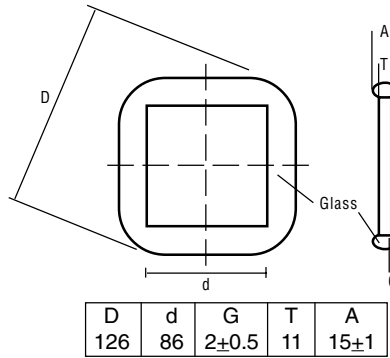
- **LOWEST COST FOR GLASS SINTERED CONSTRUCTION**
- **LOWEST V_F FOR GLASS SINTERED CONSTRUCTION**
- **TYPICAL $I_R < 100$ nAmps**
- **3.0 AMP OPERATION @ $T_A = 100^\circ\text{C}$, WITH NO THERMAL RUNAWAY**
- **SINTERED GLASS CAVITY-FREE JUNCTION**

| Electrical Characteristics @ 25°C. | GFZ3A . . . 3M Series | | | | | | | Units | |
|---|-----------------------|-----|-----|---------------------------------|-----|-----|------|----------------------------------|-------|
| Maximum Ratings | 3A | 3B | 3D | 3G | 3J | 3K | 3M | | |
| 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... $I_{F(av)}$ @ $T_A = 100^\circ\text{C}$ (Note 2) | | | | 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 | < 1.1 > | | | 1.0 | | | > | Volts | |
| Full Load Reverse Current... $I_R(av)$ Full Cycle Average @ $T_A = 100^\circ\text{C}$ | | | | 100 | | | | µAmps | |
| 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 | µAmps |
| Typical Junction Capacitance... C_j (Note 1) | | | | 40 | | | | pF | |
| Typical Thermal Resistance... $R_{\theta JA}$ (Note 2) | | | | 15 | | | | °C/W | |
| Typical Reverse Recovery Time... t_{RR} (Note 3) | | | | 2.0 | | | | µs | |
| Operating & Storage Temperature Range... T_J, T_{STRG} | -65 to 175 | | | | | | | °C | |

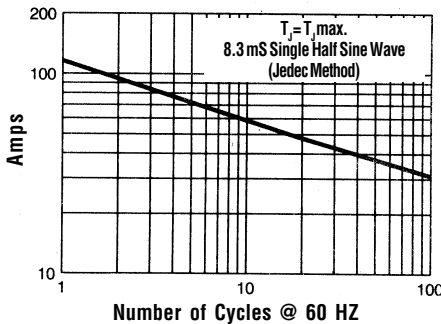
Forward Current Derating Curve



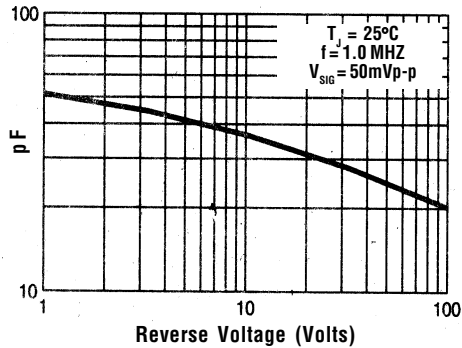
Die Dimension (mils)



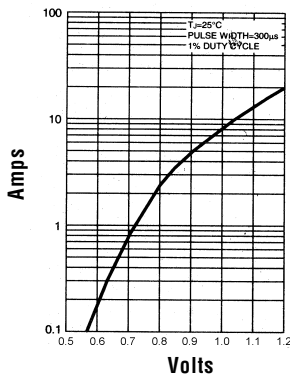
Non-Repetitive Peak Forward Surge Current



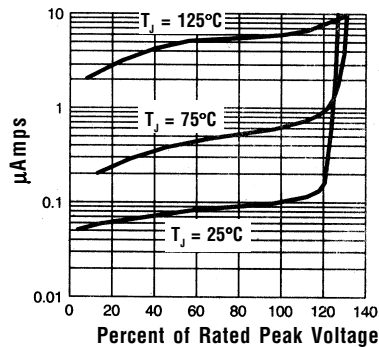
Typical Junction Capacitance



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. 8.0mm² (.013mm thick) land areas.
3. Reverse Recovery Condition $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $I_{RR} = 0.25\text{A}$.