# FE5B

## SINTERED GLASS JUNCTION
## SUPERFAST AVALANCHE RECTIFIER

**VOLTAGE：100V** **CURRENT: 5.0A**

GULF SEMI

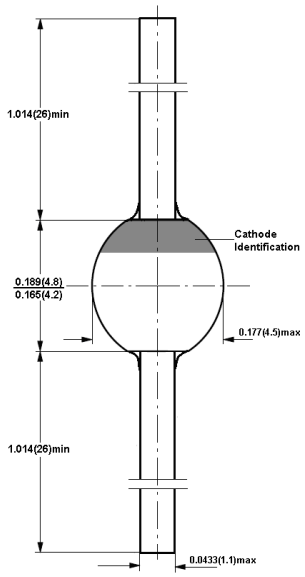
## FEATURE

High temperature metallurgically bonded construction
Glass passivated cavity-free
Super fast recovery time for high efficiency
Low forward voltage, high current capability
Low leakage current
High surge current capability

## MECHANICAL DATA

Case: G-4 sintered glass case
Terminal: Plated axial leads solderable per
MIL-STD 202E, method 208C
Polarity: color band denotes cathode end
Mounting position: any

**G-4**




Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(single-phase, half-wave, 60HZ, resistive or inductive load rating at 25°C, unless otherwise stated)

| | SYMBOL | FE5B | units |
|---|---|---|---|
| Maximum Recurrent Peak Reverse Voltage | $V_{RRM}$ | 100 | V |
| Maximum RMS Voltage | $V_{RMS}$ | 70 | V |
| Maximum DC blocking Voltage | $V_{DC}$ | 100 | V |
| Maximum Average Forward Rectified Current 3/8"lead length at Tl=55℃ | $I_{FAV}$ | 5.0 | A |
| Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load | $I_{FSM}$ | 135 | A |
| Maximum Forward Voltage at rated Forward Current and 25℃ | $V_F$ | 0.95 | V |
| Maximum DC Reverse Current at Ta= 25℃<br>rated DC blocking voltage Ta= 100℃ | $I_R$ | 5.0<br>50.0 | μA |
| Maximum Reverse Recovery Time (Note 1) | Trr | 35 | nS |
| Typical Junction Capacitance (Note 2) | Cj | 100.0 | pF |
| Typical Thermal Resistance (Note 3)<br>(Note4) | Rth(ja)<br>Rth(jl) | 55.0<br>20.0 | ℃ /W |
| Storage and Operating Junction Temperature | Tstg, Tj | -65 to +175 | ℃ |

Note:
1. Reverse Recovery Condition If =0.5A, Ir =1.0A, Irr =0.25A
2. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
3. Thermal Resistance from Junction to Ambient at 0.375"(9.5mm) lead length and mounted on P.C. B.
4. Thermal Resistance from Junction to Leadt at 0.375"(9.5mm) lead length with both leads attached to heatsinks



**RATINGS AND CHARACTERISTIC CURVES FE5B**

**FIG. 1 - MAXIMUM FORWARD CURRENT DERATING CURVE**

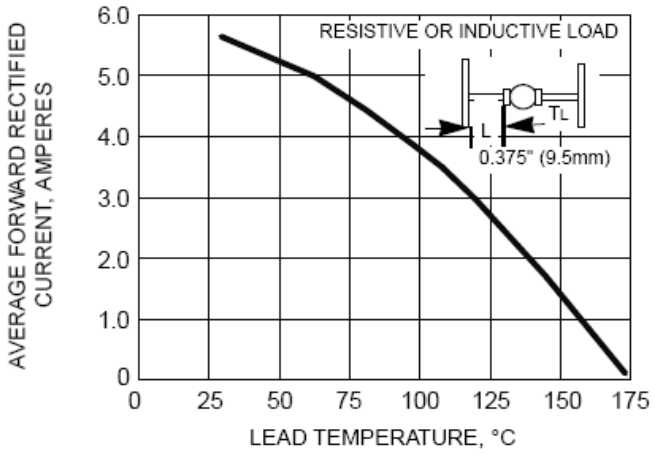



**FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**

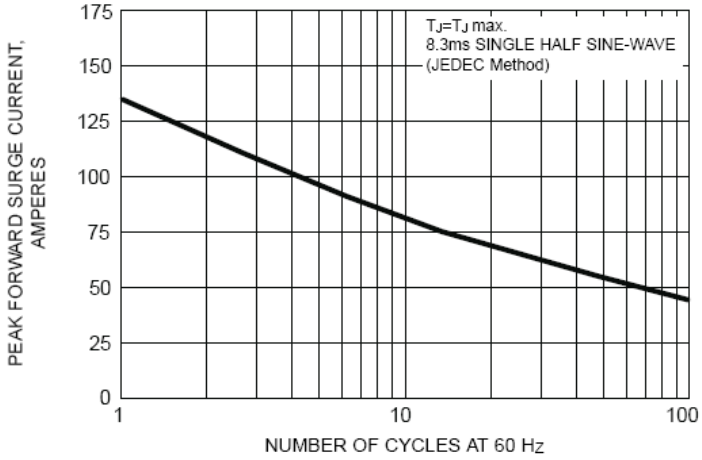



**FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**

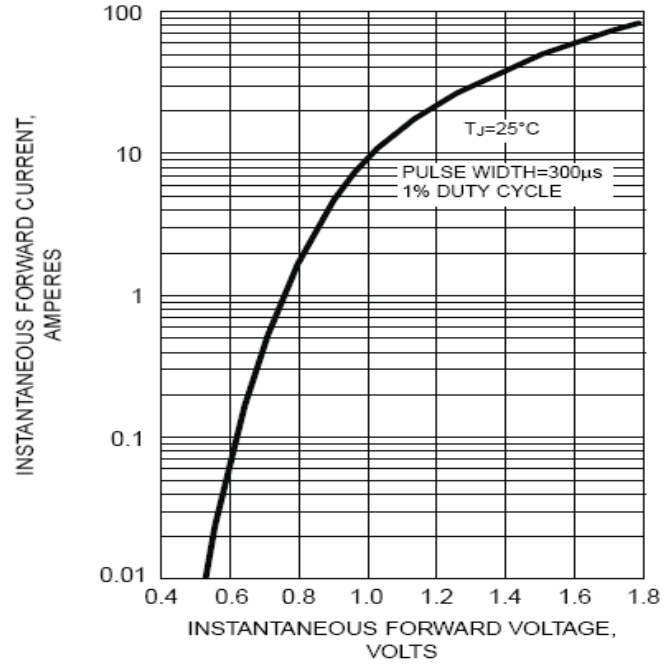



**FIG. 4 - TYPICAL REVERSE LEAKAGE CHARACTERISTICS**

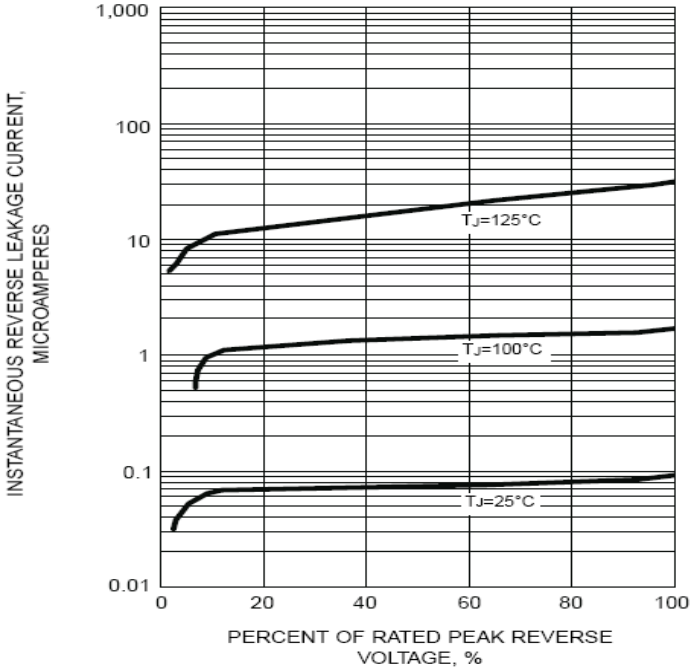



**FIG. 5 - TYPICAL JUNCTION CAPACITANCE**