



## GF02-20

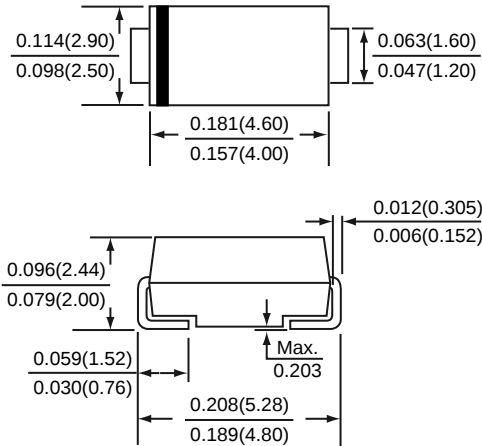
### HIGH VOLTAGE SINTERED GLASS PASSIVATED JUNCTION RECTIFIER

Reverse Voltage - 2000 Volts

Forward Current - 1.0 Ampere

**PATENTED**

SMA/DO-214AC



\*Dimensions in inches and (millimeters)

**SUPEREX II**™



#### FEATURES

- \* GPRC (Glass Passivated Rectifier Chip) inside
- \* Glass passivated cavity-free junction
- \* High temperature soldering guaranteed: 260°C/10 seconds, at terminals
- \* Plastic package has Underwriters Laboratory Flammability Classification 94V-0

#### MECHANICAL DATA

**Case :** JEDEC DO-214AC molded plastic over glass body

**Terminals :** Tin Plated, solderable per MIL-STD-750, Method 2026

**Polarity :** Color band denotes cathode end

**Weight :** 0.002 ounces , 0.064 gram

#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

| Ratings at 25 °C ambient temperature unless otherwise specified.                                 | SYMBOLS        | GF02-20     | UNITS  |
|--------------------------------------------------------------------------------------------------|----------------|-------------|--------|
| Maximum repetitive peak reverse voltage                                                          | VRRM           | 2000        | Volts  |
| Maximum RMS voltage                                                                              | VRMS           | 1400        | Volts  |
| Maximum DC blocking voltage                                                                      | VDC            | 2000        | Volts  |
| Maximum average forward rectified current (SEE FIG.1)                                            | I (AV)         | 1.0         | Amps   |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) | IFSM           | 30          | Amps   |
| Maximum instantaneous forward voltage at 1.0 A                                                   | VF             | 2.00        | Volts  |
| Maximum DC reverse current<br>TA=25°C<br>at rated DC blocking voltage<br>TA=125°C                | IR             | 5<br>50     | uA     |
| Typical junction capacitance (NOTE 1)                                                            | CJ             | 12          | pF     |
| Typical thermal resistance (NOTE 2)                                                              | R θJA<br>R θJL | 75<br>27    | °C / W |
| Operating junction and storage temperature range                                                 | TJ,TSTG        | -65 to +175 | °C     |

NOTES : (1) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts

(2) Thermal resistance from junction to ambient and from junction to lead P.C.B. mounted on 0.2 x 0.2" (5.0 x 5.0mm) copper pad areas

# RATINGS AND CHARACTERISTIC CURVES OF GF02-20

FIG.1 - FORWARD CURRENT DERATING CURVE

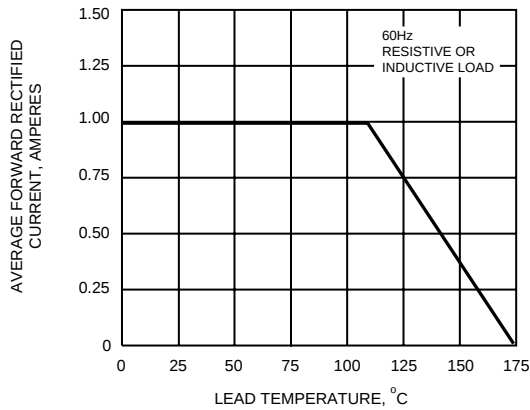


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

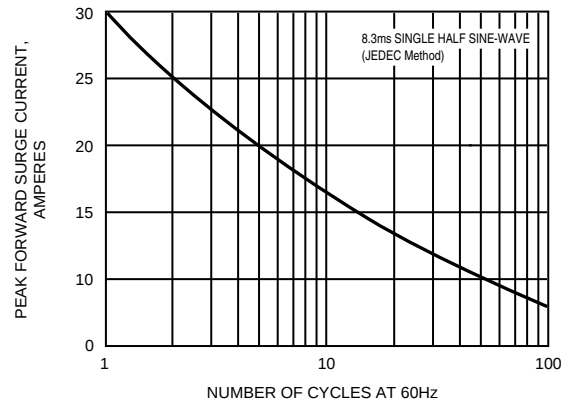


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

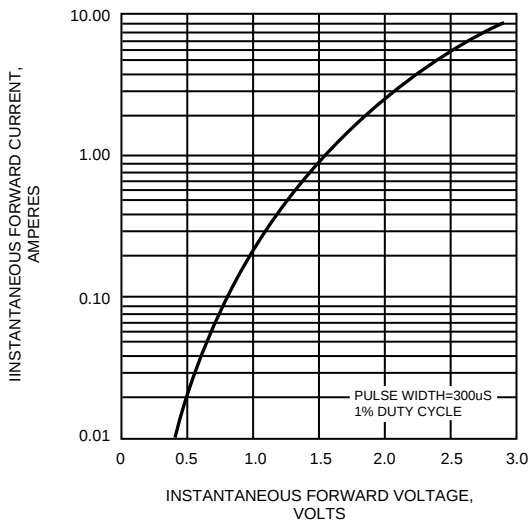


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

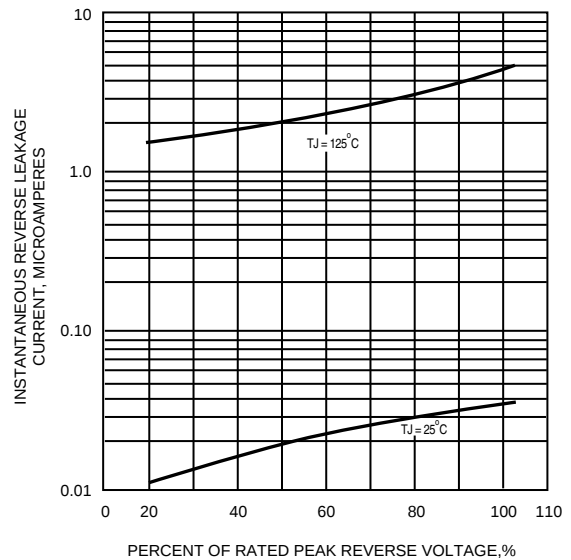


FIG.5 - TYPICAL JUNCTION CAPACITANCE

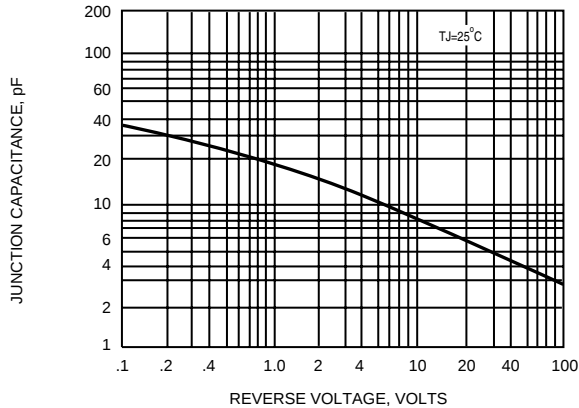


FIG.6 - TYPICAL TRANSIENT THERMAL IMPEDANCE

