



# GP20A THRU GP20M

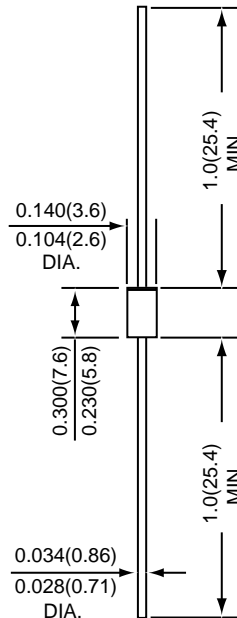
## SINTERED GLASS PASSIVATED JUNCTION RECTIFIER

Reverse Voltage - 50 to 1000 Volts

Forward Current - 2.0 Amperes

**PATENTED**

DO-204AC



\*Dimensions in inches and (millimeters)

**SUPEREX II**<sup>TM</sup>



### FEATURES

- \* GPRC (Glass Passivated Rectifier Chip) inside
- \* Glass passivated cavity-free junction
- \* Capable of meeting environmental standards of MIL-S-19500
- \* 2.0 Amperes operation at TA=55°C with no thermal runaway
- \* Typical IR less than 0.1uA
- \* High temperature soldering guaranteed: 260°C/10 seconds, 0.375" (9.5mm) lead length, 5lbs. (2.3 kg) tension
- \* Plastic package has Underwriters Laboratory Flammability Classification 94V-0

### MECHANICAL DATA

**Case :** JEDEC DO-204AC molded plastic over glass body

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

**Polarity :** Color band denotes cathode end

**Mounting Position :** Any

**Weight :** 0.015 ounces , 0.4 gram

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

| Ratings at 25 °C ambient temperature<br>unless otherwise specified.                                 | SYMBOLS        | GP20          |     |     |     |     |     |      | UNITS  |
|---|----------------|---------------|-----|-----|-----|-----|-----|------|--------|
|   |                | A             | B   | D   | G   | J   | K   | M    |        |
| Maximum repetitive peak reverse voltage   | VRRM           | 50            | 100 | 200 | 400 | 600 | 800 | 1000 | Volts  |
| Maximum RMS voltage   | VRMS           | 35            | 70  | 140 | 280 | 420 | 560 | 700  | Volts  |
| Maximum DC blocking voltage   | VDC            | 50            | 100 | 200 | 400 | 600 | 800 | 1000 | Volts  |
| Maximum average forward rectified current<br>0.375" (9.5mm) lead length at TL=55°C                  | I (AV)         | 2.0           |     |     |     |     |     |      | Amps   |
| Peak forward surge current 8.3ms single half sine-wave<br>superimposed on rated load (JEDEC Method) | IFSM           | 65            |     |     |     |     |     |      | Amps   |
| Maximum instantaneous forward voltage at 2.0 A  | VF             | 1.0           |     |     |     |     |     |      | Volts  |
| Maximum DC reverse current<br>at rated DC blocking voltage<br>TA=25°C<br>TA=125°C<br>TA=150°C       | IR             | 5<br>30<br>80 |     |     |     |     |     |      | uA     |
| Typical junction capacitance (NOTE 1)   | CJ             | 25            |     |     |     |     |     |      | pF     |
| Typical thermal resistance (NOTE 2)   | R θJA<br>R θJL | 25<br>10      |     |     |     |     |     |      | °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) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts.

# RATINGS AND CHARACTERISTIC CURVES GP20A THRU GP20M

FIG.1 - FORWARD CURRENT DERATING CURVE

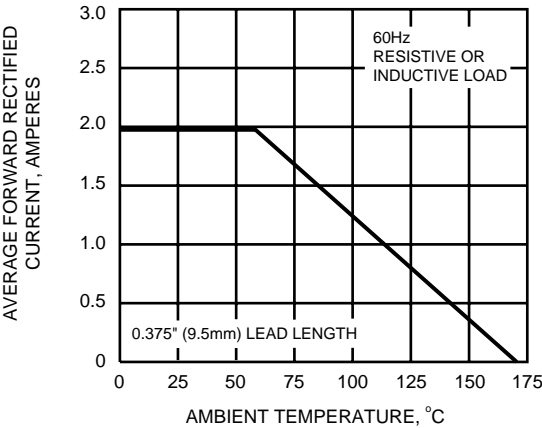


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

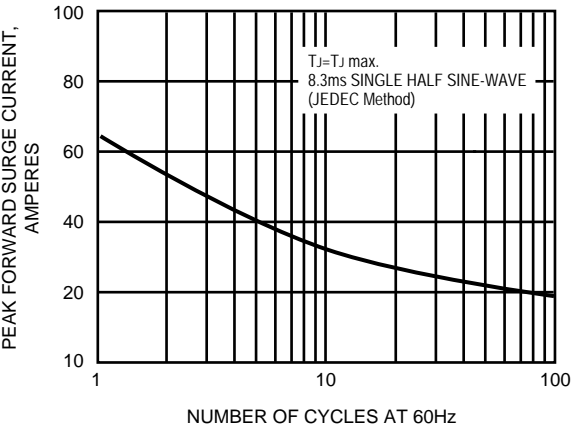


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

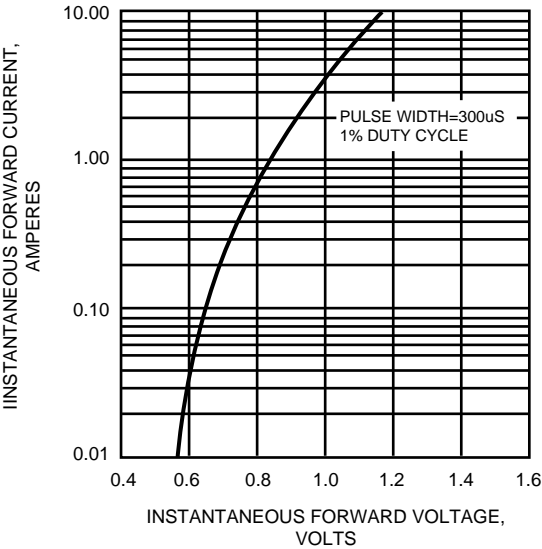


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

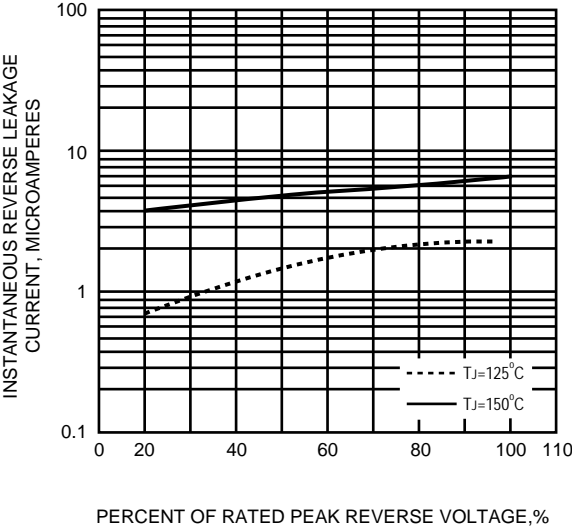


FIG.5 - TYPICAL JUNCTION CAPACITANCE

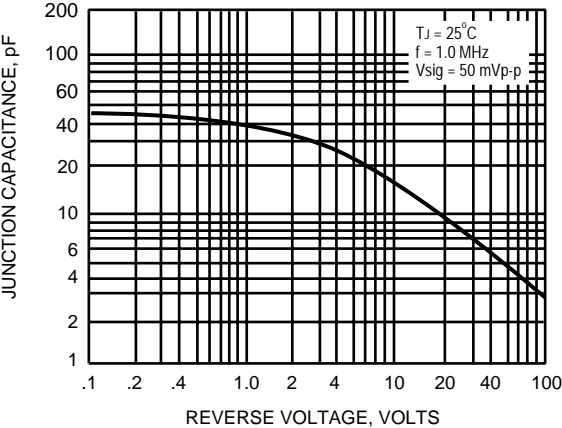


FIG.6 - TYPICAL TRANSIENT THERMAL IMPEDANCE

