



# GP02-20H

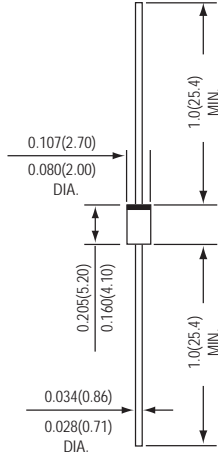
## HIGH VOLTAGE SINTERED GLASS PASSIVATED JUNCTION RECTIFIER

Reverse Voltage - 2000 Volts

Forward Current - 1.0 Ampere

**PATENTED**

DO-204AL



\*Dimensions in inches and (millimeters)

**SUPEREX II**™



### FEATURES

- \* Halogen-free type
- \* GPRC (Glass Passivated Rectifier Chip) inside
- \* Glass passivated cavity-free junction
- \* Capable of meeting environmental standards of MIL-S-19500
- \* 1.0 Ampere operation at  $T_A=75^{\circ}\text{C}$  and  $55^{\circ}\text{C}$  with no thermal runaway
- \* High temperature soldering guaranteed:  $260^{\circ}\text{C}/10$  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-204AL molded plastic over glass body

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

**Polarity :** Color band denotes cathode end

**Weight :** 0.012 ounces , 0.3 gram

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.	SYMBOLS	GP02-20H	UNITS
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	2000	Volts
Maximum RMS voltage	V <sub>RMS</sub>	1400	Volts
Maximum DC blocking voltage	V <sub>DC</sub>	2000	Volts
Maximum average forward rectified current 0.375" (9.5mm) lead length (SEE FIG.1)	I (AV)	1.0	Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	30	Amps
Maximum instantaneous forward voltage at 1.0 A	V <sub>F</sub>	2.0	Volts
Maximum DC reverse current at rated DC blocking voltage	I <sub>R</sub>	5 50	uA
Typical reverse recovery time (NOTE 1)	T <sub>rr</sub>	2.0	uS
Typical junction capacitance (NOTE 2)	C <sub>J</sub>	3.0	pF
Typical thermal resistance (NOTE 3)	R <sub>θJA</sub>	130	°C / W
Operating junction and storage temperature range	T <sub>J</sub> ,T <sub>STG</sub>	-65 to +175	°C

NOTES : (1) Revers recovery test conditions : I<sub>F</sub>=0.5A, I<sub>R</sub>=1.0A, I<sub>rr</sub>=0.25A

(2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts

(3) Thermal resistance from junction to ambient at 0.375" (9.5mm) lead lengths, P.C.B. mounted.

REV. 0

Zowie Technology Corporation

# RATINGS AND CHARACTERISTIC CURVES OF GP02-20H

FIG.1 - FORWARD CURRENT DERATING CURVE

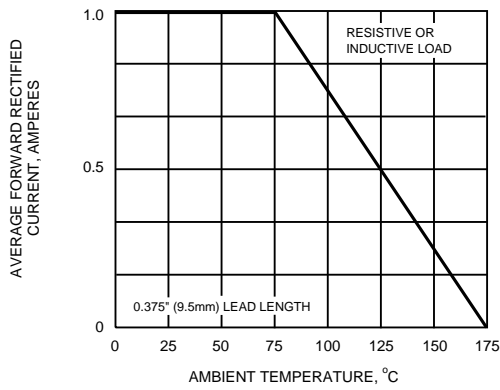


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

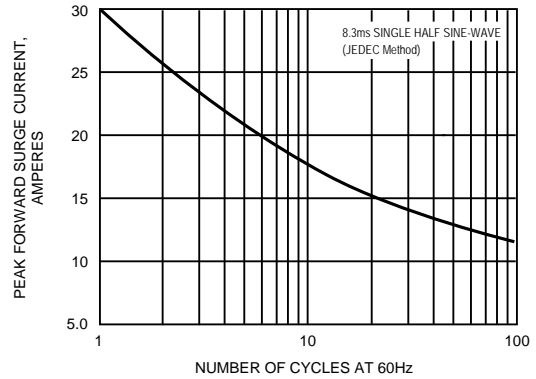


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

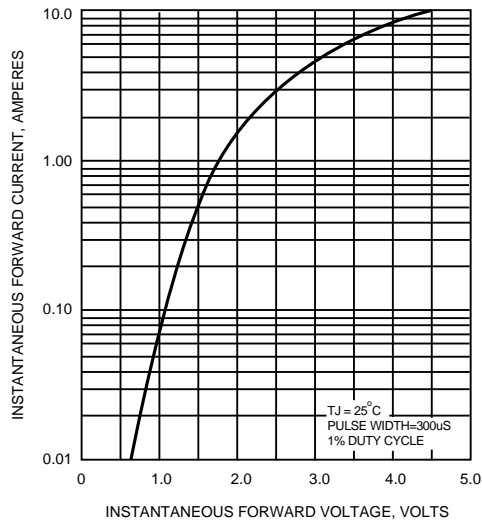


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

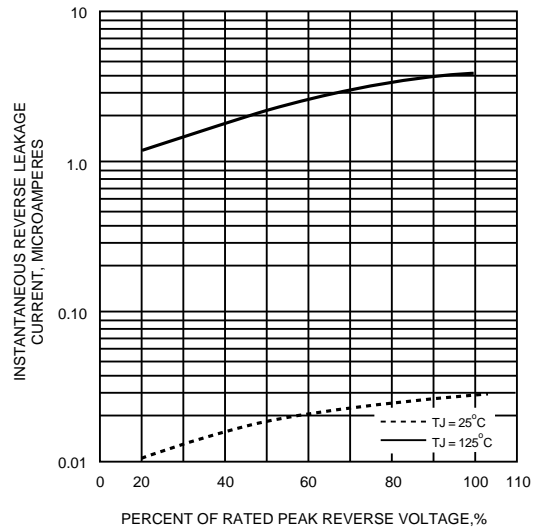


FIG.5 - TYPICAL JUNCTION CAPACITANCE

