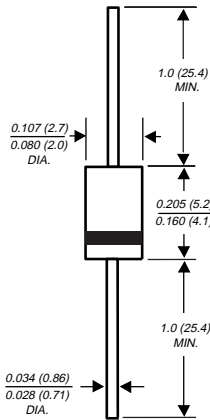


# GP02-20 THRU GP02-40

**HIGH VOLTAGE GLASS PASSIVATED JUNCTION RECTIFIER**  
*Reverse Voltage - 2000 to 4000 Volts      Forward Current - 0.25 Ampere*

**PATENTED \***

DO-204AL



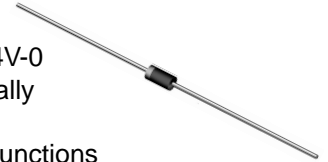
Dimensions in inches and (millimeters)

\* Glass-plastic encapsulation technique is covered by Patent No. 3,996,602 and brazed-lead assembly by Patent No. 3,930,306



## FEATURES

- ◆ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ◆ High temperature metallurgically bonded construction
- ◆ Glass passivated cavity-free junctions
- ◆ Capable of meeting environmental standards of MIL-S-19500
- ◆ High temperature soldering guaranteed: 350°C/10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension



## MECHANICAL DATA

**Case:** JEDEC DO-204AL 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:** 0.012 ounce, 0.3 gram

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	GP02 -20	GP02 -25	GP02 -30	GP02 -35	GP02 -40	UNITS
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	2000	2500	3000	3500	4000	Volts
Maximum RMS Voltage	V <sub>RMS</sub>	1400	1750	2100	2450	2800	Volts
Maximum DC blocking voltage	V <sub>DC</sub>	2000	2500	3000	3500	4000	Volts
Maximum average forward rectified current 0.375" (9.5mm) lead length at T <sub>A</sub> =55°C	I <sub>(AV)</sub>	0.25					Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load at: (JEDEC Method) T <sub>A</sub> =55°C	I <sub>FSM</sub>	15.0					Amps
Maximum instantaneous forward voltage at 1.0A	V <sub>F</sub>	3.0					Volts
Maximum DC reverse current at rated DC blocking voltage	I <sub>R</sub>	5.0 50.0					μA
Typical reverse recovery time (NOTE 1)	t <sub>rr</sub>	2.0					μs
Typical junction capacitance (NOTE 2)	C <sub>J</sub>	3.0					pF
Typical thermal resistance (NOTE 3)	R <sub>θJA</sub>	130.0					°C/W
Operating junction and storage temperature range	T <sub>J</sub> , T <sub>STG</sub>	-65 to +175					°C

**NOTES:**

- (1) Reverse 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

# RATINGS AND CHARACTERISTIC CURVES GP02-20 THRU GP02-40

FIG. 1 - FORWARD CURRENT DERATING

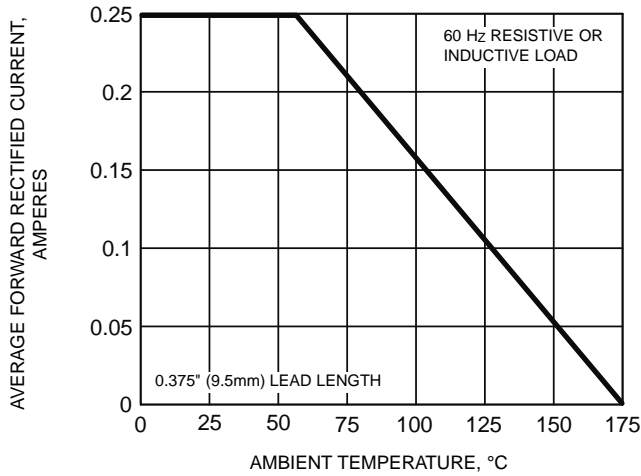


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

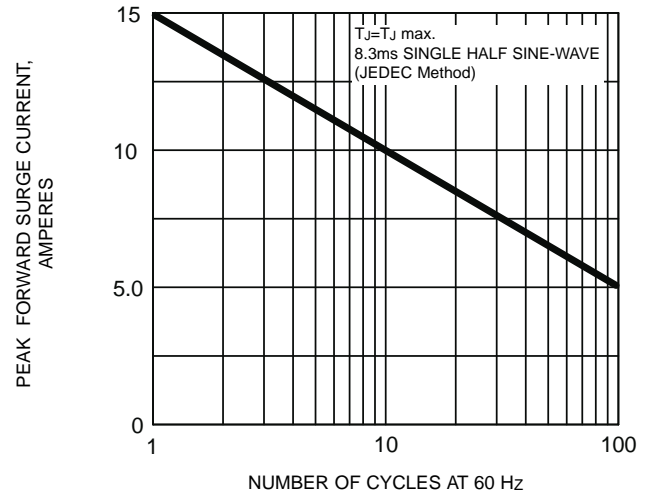


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

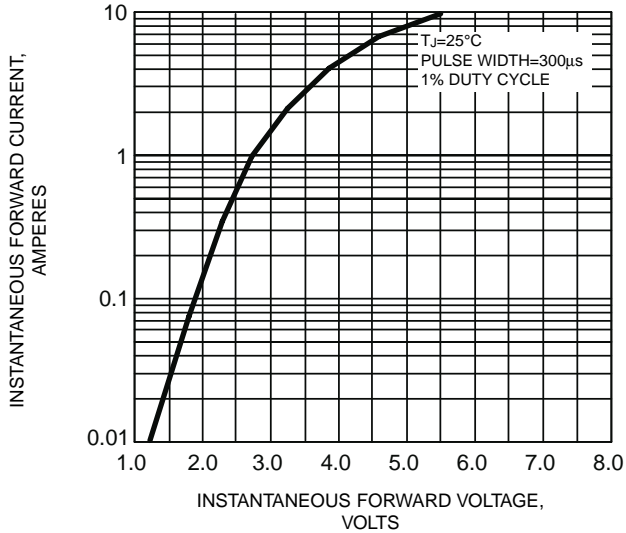


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

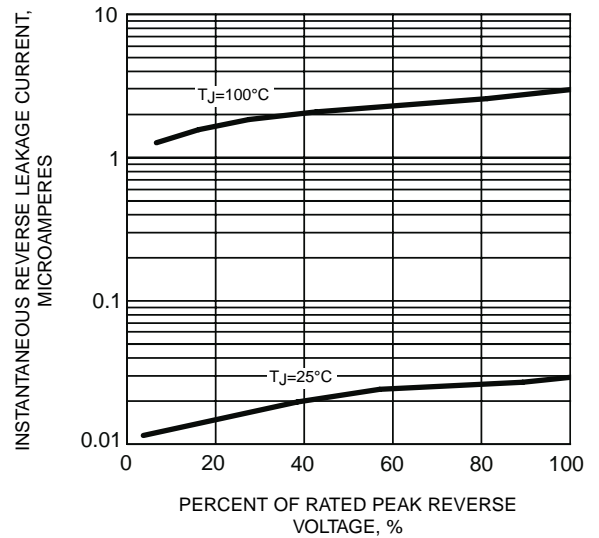
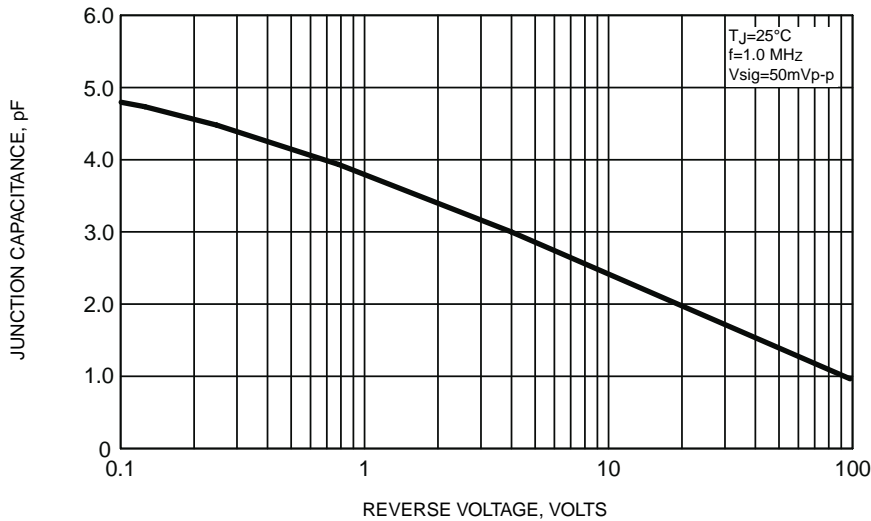


FIG. 5 - TYPICAL JUNCTION CAPACITANCE





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