

GP02-20 THRU GP02-40

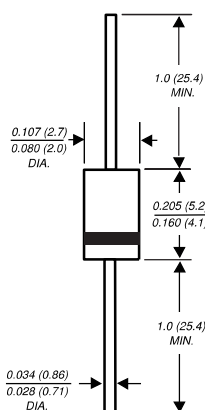
HIGH VOLTAGE GLASS PASSIVATED JUNCTION RECTIFIER

Reverse Voltage - 2000 to 4000 Volts

Forward Current - 0.25 Ampere

DO-204AL

PATENTED *



Dimensions in inches and (millimeters)

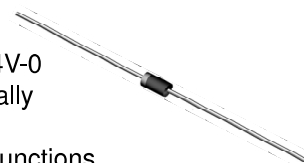
* Glass-plastic encapsulation technique is covered by

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 _{RRM}	2000	2500	3000	3500	4000	Volts
Maximum RMS Voltage	V _{RMS}	1400	1750	2100	2450	2800	Volts
Maximum DC blocking voltage	V _{DC}	2000	2500	3000	3500	4000	Volts
Maximum average forward rectified current 0.375" (9.5mm) lead length at T _A =55°C	I _(AV)	0.25					Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load at: (JEDEC Method) T _A =55°C	I _{FSM}	15.0					Amps
Maximum instantaneous forward voltage at 1.0A	V _F	3.0					Volts
Maximum DC reverse current T _A = 25°C at rated DC blocking voltage T _A =100°C	I _R	5.0 50.0					μA
Typical reverse recovery time (NOTE 1)	t _{rr}	2.0					μs
Typical junction capacitance (NOTE 2)	C _J	3.0					pF
Typical thermal resistance (NOTE 3)	R _{θJA}	130.0					°C/W
Operating junction and storage temperature range	T _J , T _{STG}	-65 to +175					°C

NOTES:

(1) Reverse recovery test conditions: I_F=0.5A, I_R=1.0A, I_{rr}=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

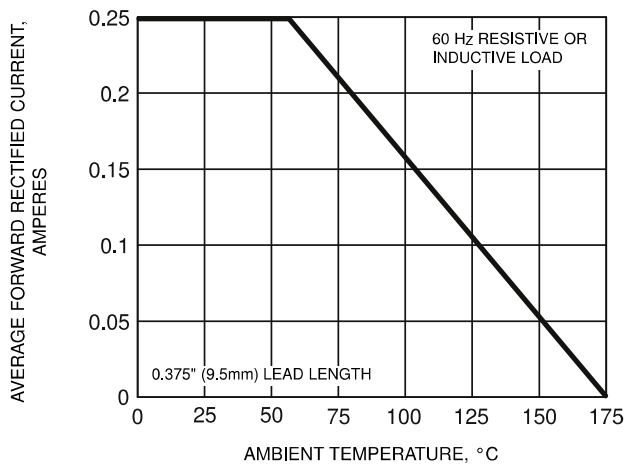


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

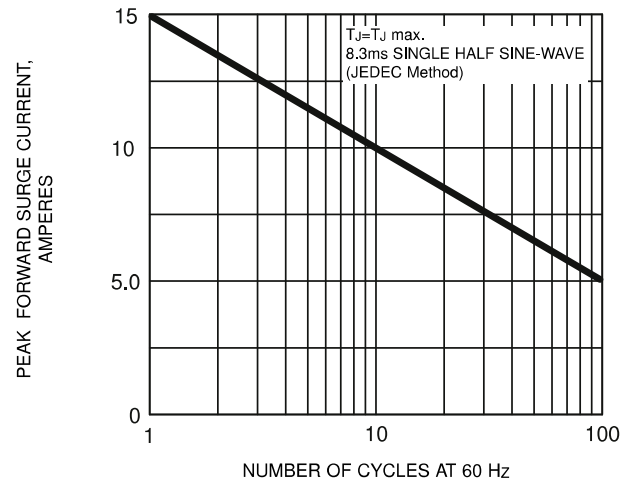


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

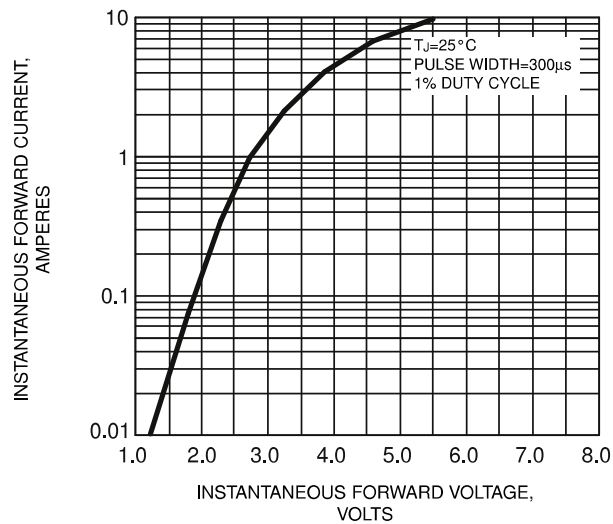


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

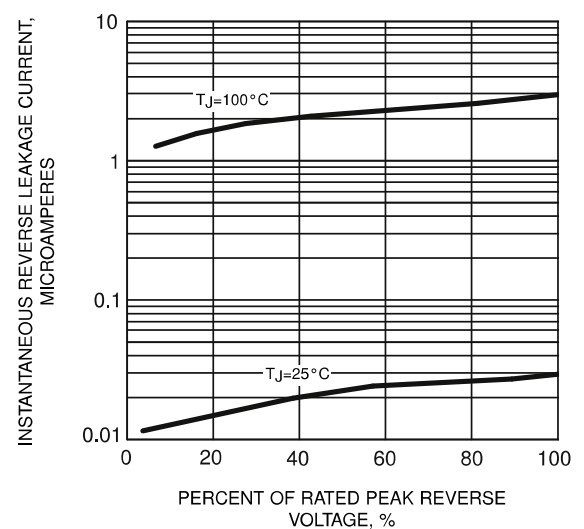
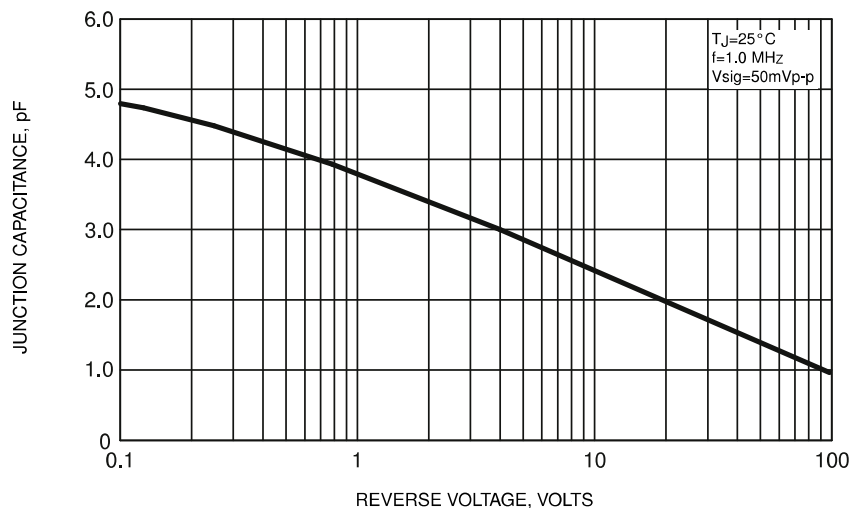


FIG. 5 - TYPICAL JUNCTION CAPACITANCE



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