

GP02-20 THRU GP02-40

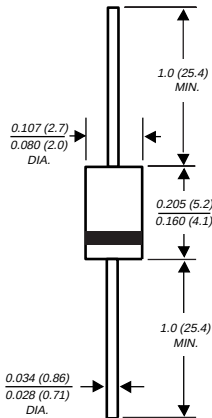
HIGH VOLTAGE GLASS PASSIVATED JUNCTION RECTIFIER

Reverse Voltage - 2000 to 4000 Volts

Forward Current - 0.25 Ampere

PATENTED *

DO-204AL



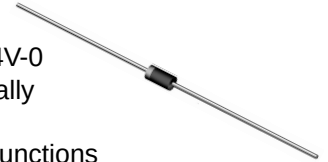
Dimensions in inches and (millimeters)

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

SUPERRECTIFIER®

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

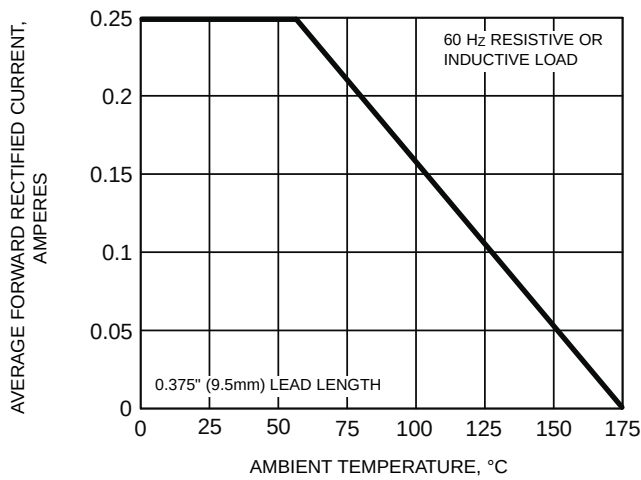


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

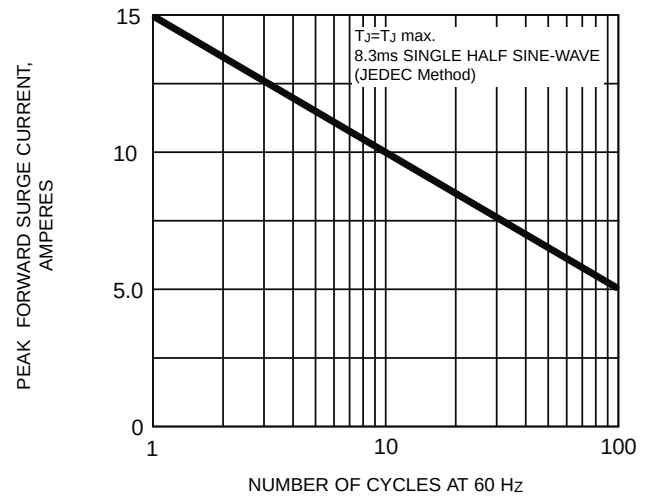


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

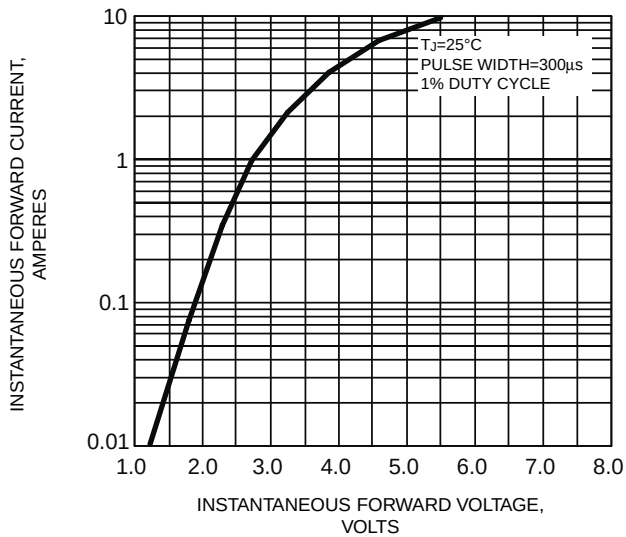


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

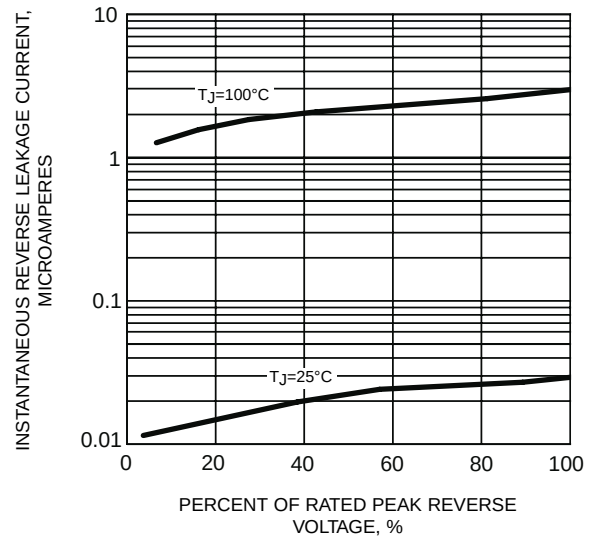


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

