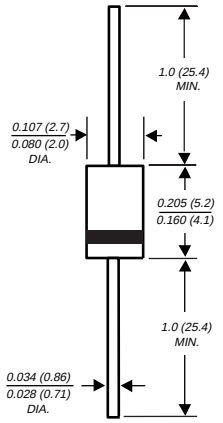
GP02-20 THRU GP02-40

HIGH VOLTAGE GLASS PASSIVATED JUNCTION RECTIFIER

***Reverse Voltage** - 2000 to 4000 Volts* ***Forward Current** - 0.25 Ampere*

PATENTED*

DO-204AL

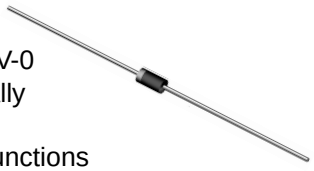


Dimensions in inches and (millimeters)

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

SUPERECTIFIER®

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)	$R_{\Theta JA}$	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

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RATINGS AND CHARACTERISTIC CURVES GP02-20 THRU GP02-40

FIG. 1 - FORWARD CURRENT DERATING

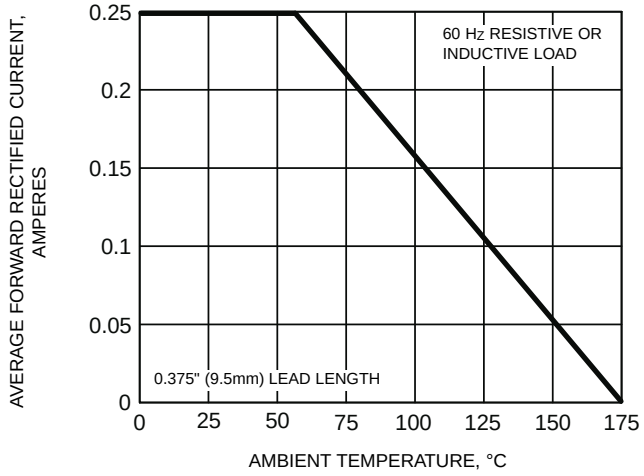


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

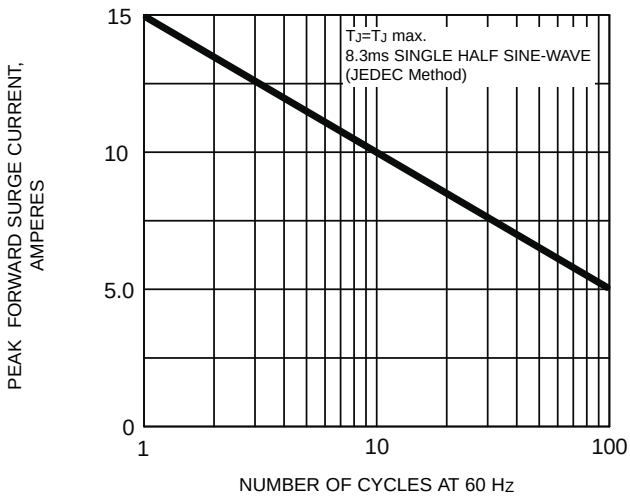


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

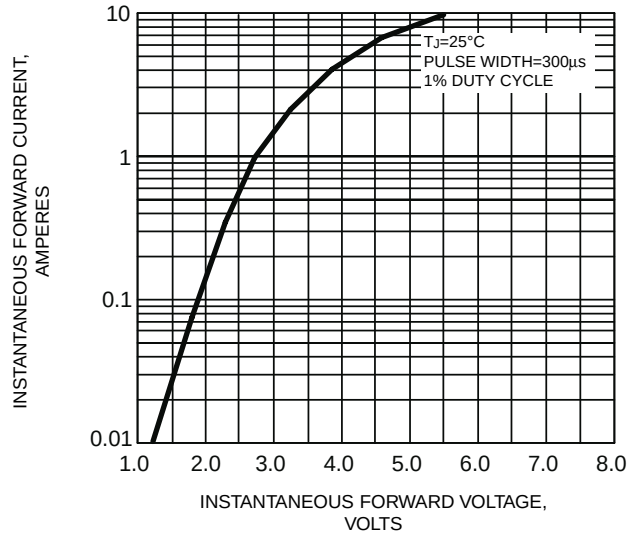


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

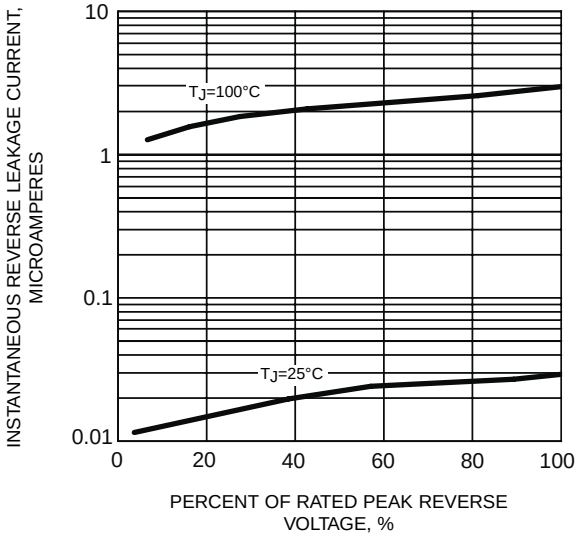
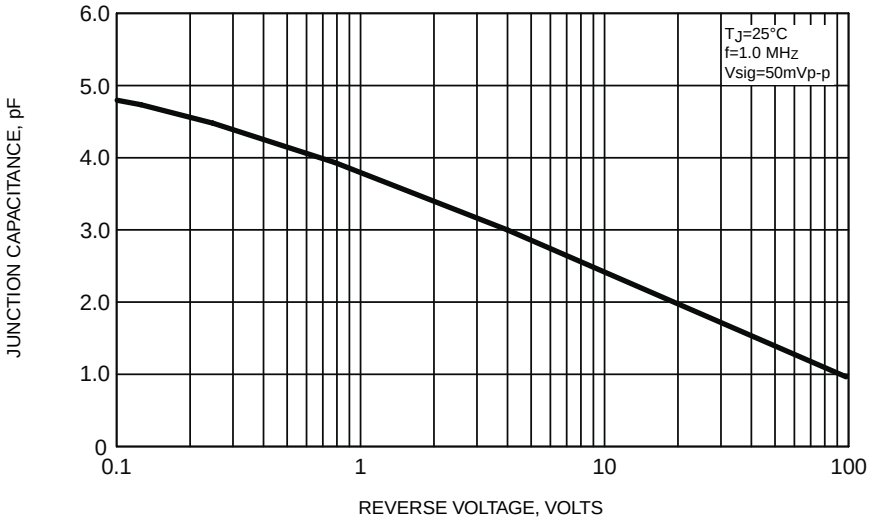


FIG. 5 - TYPICAL JUNCTION CAPACITANCE



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