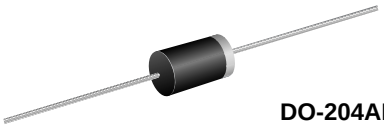
GENERAL SEMICONDUCTOR®

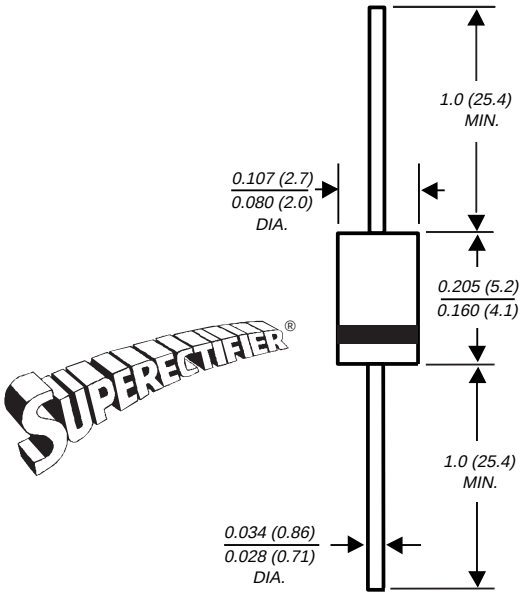
GI250-1 thru GI250-4

High Voltage Glass Passivated Junction Rectifier

Reverse Voltage 1000 to 4000V
Forward Current 0.25A



DO-204AL (DO-41)



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*

Patented*

Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- High temperature metallurgically bonded construction
- Cavity-free glass passivated junction
- 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 & Thermal Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOL	GI250-1	GI250-2	GI250-3	GI250-4	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	1000	2000	3000	4000	V
Maximum RMS voltage	V_{RMS}	700	1400	2100	2800	V
Maximum DC blocking voltage	V_{DC}	1000	2000	3000	4000	V
Maximum average forward rectified current 0.375" (9.5mm) lead length at T_A=75°C	$I_{F(AV)}$	0.25				A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load at T_A = 75°C (JEDEC Method)	I_{FSM}	15				A
Typical thermal resistance (NOTE 1)	$R_{\Theta JA}$	130				°C/W
Operating junction and storage temperature range	T_J, T_{STG}	–65 to +175				°C

Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOL	GI250-1	GI250-2	GI250-3	GI250-4	UNIT
Maximum instantaneous forward voltage at 0.25A	V_F	3.5				V
Maximum DC reverse current T_A = 25°C at rated DC blocking voltage T_A = 100°C	I_R	5.0 50				µA
Typical reverse recovery time at I_F = 0.5A, I_R = 1.0A, I_{rr} = 0.25A	t_{rr}	2.0				µs
Typical junction capacitance at 4.0V, 1MHz	C_J	3.0				pF

NOTES:
(1) Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted

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Ratings and Characteristic Curves (T_A = 25°C unless otherwise noted)

FIG. 1 - FORWARD CURRENT DERATING CURVE

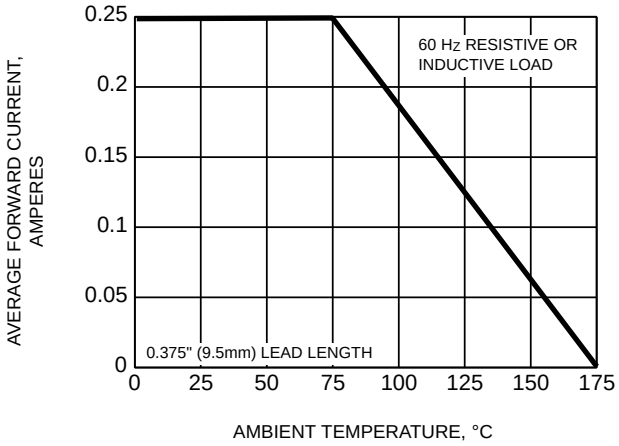

FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

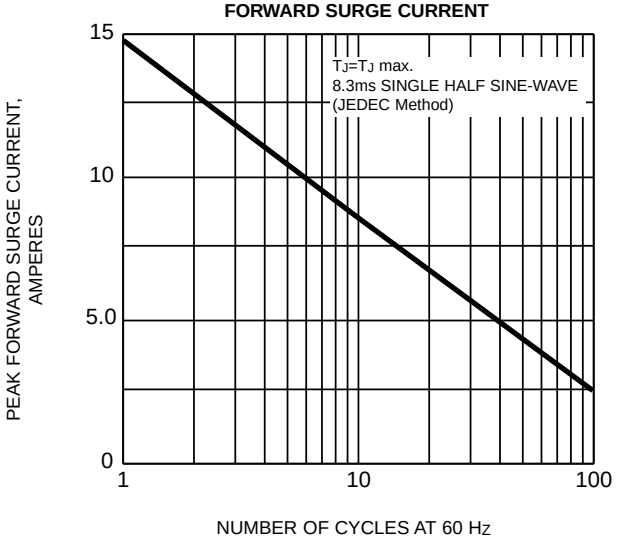

FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

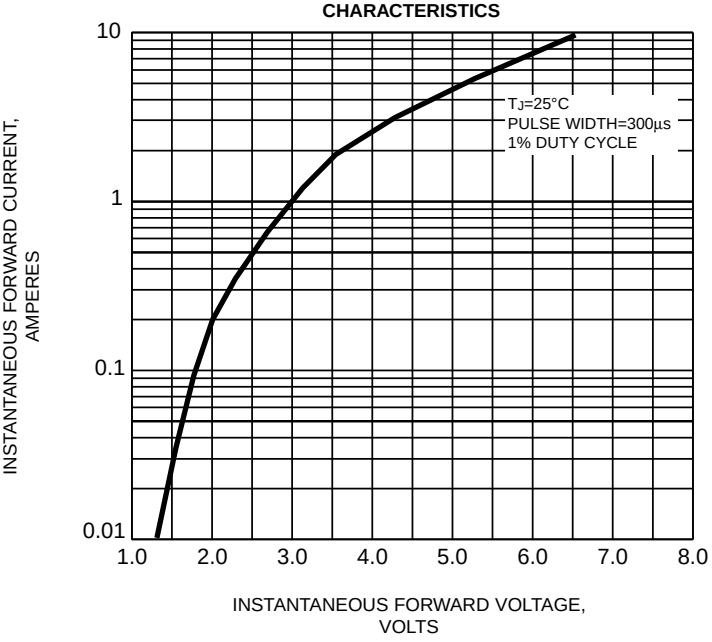

FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

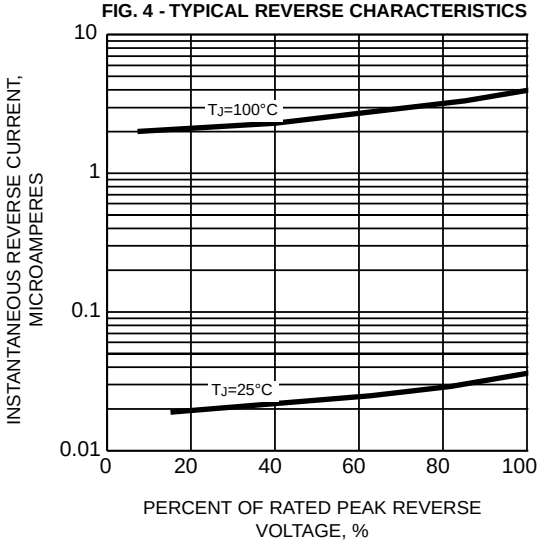

FIG. 5 - TYPICAL JUNCTION CAPACITANCE