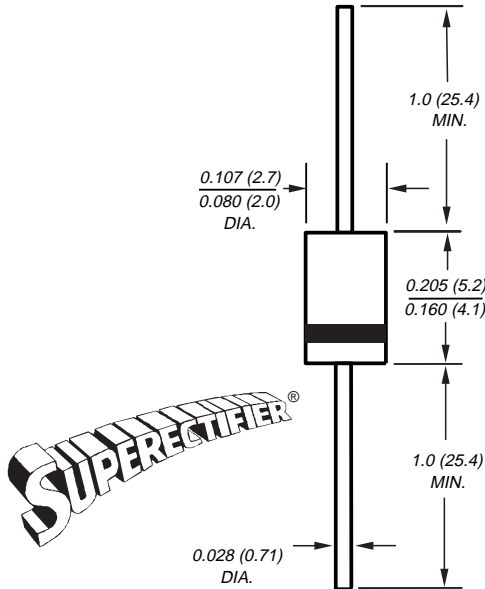


## High Voltage Glass Passivated Junction Rectifier

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 oz., 0.3 g

## 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 <sub>RRM</sub>	1000	2000	3000	4000	V
Maximum RMS voltage	V <sub>RMS</sub>	700	1400	2100	2800	V
Maximum DC blocking voltage	V <sub>DC</sub>	1000	2000	3000	4000	V
Maximum average forward rectified current 0.375" (9.5mm) lead length at T <sub>A</sub> =75°C	I <sub>F(AV)</sub>	0.25				A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load at T <sub>A</sub> = 75°C (JEDEC Method)	I <sub>FSM</sub>	15				A
Typical thermal resistance <sup>(1)</sup>	R <sub>θJA</sub>	130				°C/W
Operating junction and storage temperature range	T <sub>J</sub> , T <sub>STG</sub>	-65 to +175				°C

## Electrical Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

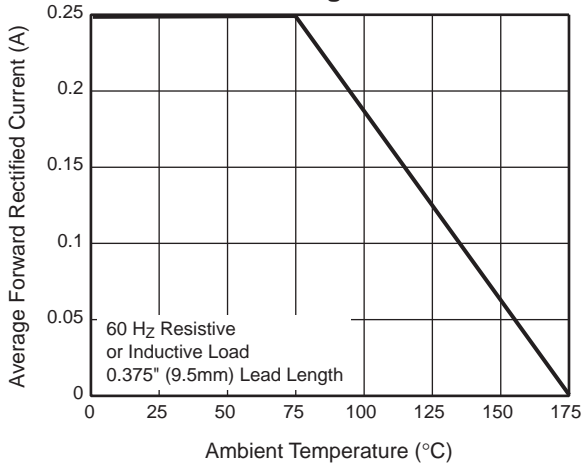
	Symbol	GI250-1	GI250-2	GI250-3	GI250-4	Unit
Maximum instantaneous forward voltage at 0.25A	V <sub>F</sub>	3.5				V
Maximum DC reverse current at rated DC blocking voltage T <sub>A</sub> = 25°C T <sub>A</sub> = 100°C	I <sub>R</sub>	5.0 50				μA
Typical reverse recovery time at I <sub>F</sub> = 0.5A, I <sub>R</sub> = 1.0A, I <sub>rr</sub> = 0.25A	t <sub>rr</sub>	2.0				μs
Typical junction capacitance at 4.0V, 1MHz	C <sub>J</sub>	3.0				pF

### Notes:

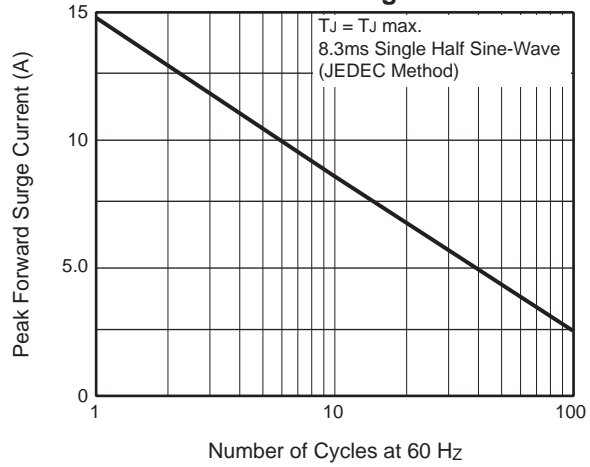
(1) Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted

## Ratings and Characteristic Curves ( $T_A = 25^\circ\text{C}$ unless otherwise noted)

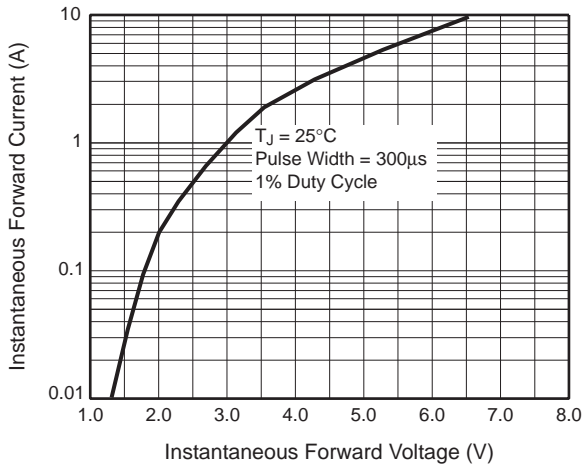
**Fig. 1 – Forward Current Derating Curve**



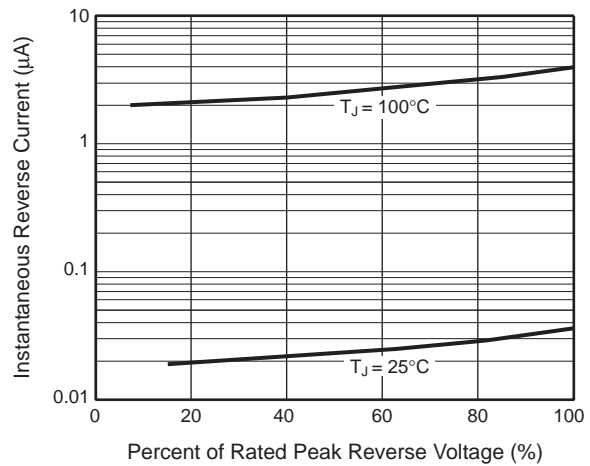
**Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current**



**Fig. 3 – Typical Instantaneous Forward Characteristics**



**Fig. 4 – Typical Reverse Characteristics**



**Fig. 5 – Typical Junction Capacitance**

