

# Silicon Diode

## **GI1002**

100V / 1A

# DATASHEET

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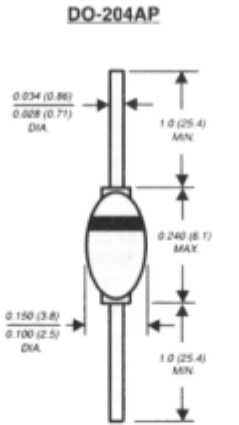
OEM – General Semiconductor

Source: General Semiconductor Databook 1998

# GI1001 THRU GI1004

**GLASS PASSIVATED FAST EFFICIENT RECTIFIER**  
**Reverse Voltage - 50 to 200 Volts      Forward Current - 1.0 Ampere**

**PATENTED \***



Dimensions in inches and (millimeters)

\* Brazed lead assembly is covered by Patent No. 3,930,30

## FEATURES

- ◆ High temperature metallurgically bonded construction
- ◆ Glass passivated cavity-free junction
- ◆ Superfast recovery time for high efficiency
- ◆ Low forward voltage, high current capability
- ◆ Capable of meeting environmental standards of MIL-S-19500
- ◆ Hermetically sealed package
- ◆ Low leakage current
- ◆ High surge capability
- ◆ High temperature soldering guaranteed:  
350°C/10 seconds, 0.375" (9.5mm) lead length,  
5 lbs. (2.3kg) tension

## MECHANICAL DATA

**Case:** JEDEC DO-204AP solid glass body  
**Terminals:** Plated axial leads, solderable per MIL-STD-750, Method 2026  
**Polarity:** Color band denotes cathode end  
**Mounting Position:** Any  
**Weight:** 0.02 ounce, 0.56 gram

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	GI1001	GI1002	GI1003	GI1004	UNITS
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	50	100	150	200	Volts
Maximum RMS voltage	V <sub>RMS</sub>	35	70	105	140	Volts
Maximum DC blocking voltage	V <sub>DC</sub>	50	100	150	200	Volts
Maximum average forward rectified current 0.375" (9.5mm) lead length at T <sub>L</sub> =75°C	I <sub(av)< sub=""></sub(av)<>	1.0				Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) at T <sub>L</sub> =75°C	I <sub>FSM</sub>	30.0				Amps
Maximum instantaneous forward voltage at 1.0A	V <sub>F</sub>	0.975				Volts
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>	2.0 50.0				μA
Maximum reverse recovery time (NOTE 1)	t <sub>rr</sub>	25.0				ns
Typical junction capacitance (NOTE 2)	C <sub>J</sub>	45.0				pF
Typical thermal resistance (NOTE 3) (NOTE 4)	R <sub>θJA</sub> R <sub>θJL</sub>	65.0 20.0				°C/W
Operating junction and storage temperature range	T <sub>J</sub> , T <sub>STG</sub>	-65 to +175				°C

**NOTES:**

- (1) Reverse recovery test conditions: I<sub>F</sub>=0.5A, I<sub>R</sub>=1.0A, I<sub>T</sub>=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 length and mounted on P.C.B. with 0.5 x 0.5" (12 x 12mm)
- (4) Thermal resistance from junction to lead at 0.375" (9.5mm) lead length with both leads attached to heatsinks

**RATINGS AND CHARACTERISTIC CURVES G11001 THRU G11004**

