

# Silicon Diode

## **GI910**

50V / 3A

# DATASHEET

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OEM – General Semiconductor

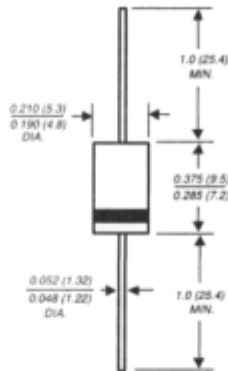
Source: General Semiconductor Databook 1998

# GI910 THRU GI917

## MEDIUM-SWITCHING PLASTIC RECTIFIER

Reverse Voltage - 50 to 800 Volts    Forward Current - 3.0 Amperes

DO-201AD



Dimensions in inches and (millimeters)

### FEATURES

- ◆ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ◆ High surge current capability
- ◆ Construction utilizes void-free molded plastic technique
- ◆ High forward current operation
- ◆ Fast switching for high efficiency
- ◆ High temperature soldering guaranteed: 250°C/10 seconds, 0.375 (9.5mm) lead length, 5 lbs. (2.3kg) tension

### MECHANICAL DATA

**Case:** JEDEC DO-201AD molded plastic body  
**Terminals:** Plated axial leads solderable per MIL-STD-750, Method 2026  
**Polarity:** Color band denotes cathode end  
**Mounting Position:** Any  
**Weight:** 0.04 ounce, 1.1 grams

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	GI910	GI911	GI912	GI914	GI916	GI917	UNITS
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	50	100	200	400	600	800	Volts
Maximum RMS voltage	V <sub>RMS</sub>	35	70	140	280	420	560	Volts
Maximum DC blocking voltage	V <sub>DC</sub>	50	100	200	400	600	800	Volts
Maximum average forward rectified current 0.375" (9.5mm) lead length at T <sub>A</sub> =90°C	I <sub>(AV)</sub>	3.0						Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	100.0						Amps
Maximum instantaneous forward voltage at: 3.0A 9.4A, T <sub>J</sub> =175°C	V <sub>F</sub>	1.25 1.10						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>	10.0 300.0						µA
Typical junction capacitance (NOTE 1)	C <sub>J</sub>	28.0						pF
Maximum reverse recovery time (NOTE 2)	t <sub>rr</sub>	750						ns
Maximum reverse recovery current	I <sub>RM(REC)</sub>	2.0						Amps
Typical thermal resistance (NOTE 3)	R <sub>θJA</sub> R <sub>θJL</sub>	22.0 8.0						°C/W
Operating junction and storage temperature range	T <sub>J</sub> , T <sub>STG</sub>	-50 to +150						°C

**NOTES:**

- (1) Measured at 1 MHz and applied reverse voltage of 4.0 Volts
- (2) Reverse recovery test conditions: I<sub>F</sub>=1.0A, V<sub>R</sub>=30V, di/dt=50A/µs, and I<sub>R</sub>=10% I<sub>SM</sub> for measurement of t<sub>rr</sub>
- (3) Thermal resistance from junction to ambient and from junction to lead at 0.375" (9.5mm) lead length, both leads equally heat sink

**RATINGS AND CHARACTERISTIC CURVES GI910 THRU GI917**

