

# Silicon Diode

## **GI1404**

200V / 8A

# DATASHEET

from

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OEM – General Semiconductor

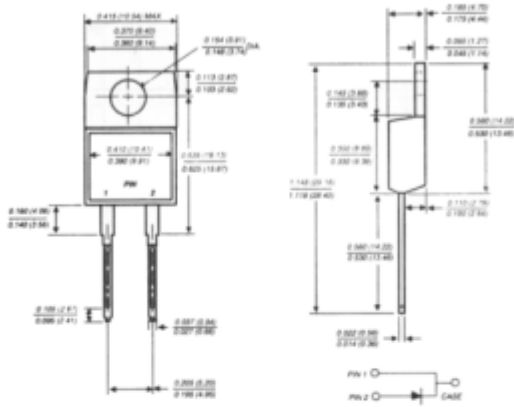
Source: General Semiconductor Databook 1998

# GI1401 THRU GI1404

## FAST EFFICIENT PLASTIC RECTIFIER

Reverse Voltage - 50 to 200 Volts    Forward Current - 8.0 Amperes

### TO-220AC



Dimensions in inches and (millimeters)

### FEATURES

- ◆ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ◆ Glass passivated chip junction
- ◆ Low power loss
- ◆ Low leakage current
- ◆ High surge capability
- ◆ Superfast recovery time for high efficiency
- ◆ High temperature soldering guaranteed: 250°C, 0.16" (4.06mm) from case for 10 seconds



### MECHANICAL DATA

**Case:** JEDEC TO-220AC molded plastic body over passivated chip

**Terminals:** Lead solderable per MIL-STD-750, Method 2026

**Polarity:** As marked

**Mounting Position:** Any

**Weight:** 0.064 ounce, 1.81 grams

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	GI1401	GI1402	GI1403	GI1404	UNITS
Maximum recurrent peak reverse voltage	VRRM	50	100	150	200	Volts
Maximum RMS voltage	VRMS	35	70	105	140	Volts
Maximum DC blocking voltage	VDC	50	100	150	200	Volts
Maximum average forward rectified current at T <sub>C</sub> =125°C	I <sub>F(AV)</sub>	8.0				Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) at T <sub>C</sub> =125°C	I <sub>FSM</sub>	125.0				Amps
Maximum instantaneous forward voltage at: I <sub>F</sub> =4A, T <sub>J</sub> =100°C I <sub>F</sub> =8A, T <sub>J</sub> =100°C I <sub>F</sub> =4A, T <sub>J</sub> =25°C I <sub>F</sub> =8A, T <sub>J</sub> =25°C	V <sub>F</sub>	0.800 0.895 0.900 0.975				Volts
Maximum DC reverse current at rated DC blocking voltage T <sub>C</sub> =25°C T <sub>C</sub> =100°C	I <sub>R</sub>	5.0 150.0				µA
Maximum reverse recovery time (NOTE 1)	t <sub>rr</sub>	35.0				ns
Typical junction capacitance (NOTE 2)	C <sub>J</sub>	85.0				pF
Typical thermal resistance (NOTE 3)	R <sub>θJA</sub>	15.0				°C/W
(NOTE 4)	R <sub>θJC</sub>	2.2				
Operating and storage temperature range	T <sub>J</sub> , T <sub>STG</sub>	-65 to +150				°C

**NOTES:**

- (1) Reverse recovery test conditions: I<sub>R</sub>=0.5A, I<sub>R</sub>=1.0A, I<sub>F</sub>=0.25A
- (2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts
- (3) Thermal resistance from junction to ambient in free air, no heatsink
- (4) Thermal resistance from junction to case mounted on heatsink

**RATINGS AND CHARACTERISTIC CURVES GI1401 THRU GI1404**

