

# Silicon Diode

## **GI2402**

100V / 16A

# DATASHEET

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OEM – General Semiconductor

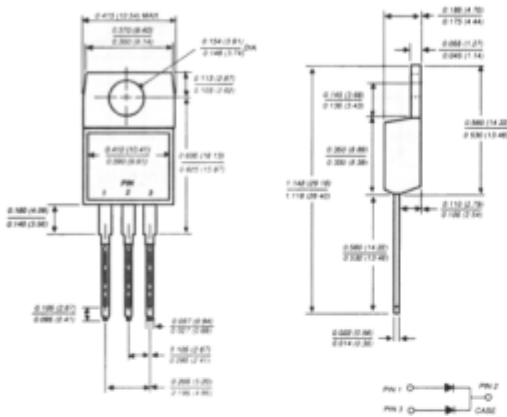
Source: General Semiconductor Databook 1998

# GI2401 THRU GI2404

## GLASS PASSIVATED PLASTIC RECTIFIER

Reverse Voltage - 50 to 200 Volts      Forward Current - 16.0 Amperes

### TO-220AB



Dimensions in inches and (millimeters)

### FEATURES

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



### MECHANICAL DATA

**Case:** JEDEC TO-220AB molded plastic body over passivated chips  
**Terminals:** Plated lead solderable per MIL-STD-750, Method 2026  
**Polarity:** As marked  
**Mounting Position:** Any  
**Mounting Torque:** 5 in. - lbs. max.  
**Weight:** 0.08 ounce, 2.24 grams

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	GI2401	GI2402	GI2403	GI2404	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(AV)	16.0				Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) at T <sub>C</sub> =125°C	IFSM	125.0				Amps
Maximum instantaneous forward voltage per leg at: IF=4A, T <sub>J</sub> =25°C IF=8A, T <sub>J</sub> =25°C IF=4A, T <sub>J</sub> =100°C IF=8A, T <sub>J</sub> =100°C	V <sub>F</sub>	0.975 0.900 0.800 0.895				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>	50.0 150.0		5.0 500.0		μA
Maximum reverse recovery time per leg (NOTE 1)	t <sub>rr</sub>	35.0				ns
Typical junction capacitance per leg (NOTE 2)	C <sub>J</sub>	85.0				pF
Typical thermal resistance per leg (NOTE 3)	R <sub>θJA</sub> R <sub>θJC</sub>	16.0 2.2				°C/W
Operating junction and storage temperature range	T <sub>J</sub> , T <sub>STG</sub>	-65 to +150				°C

**NOTES:**

- (1) Reverse recovery test conditions: I<sub>F</sub>=0.5A, I<sub>R</sub>=1.0A, I<sub>s</sub>=0.25A
- (2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts
- (3) Thermal resistance from junction to case and from junction to ambient per leg mounted on heatsink

**RATINGS AND CHARACTERISTICS CURVES GI2401 THRU GI2404**

