

# Silicon Diode

## **GI821**

100V / 5A

# DATASHEET

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OEM – General Semiconductor

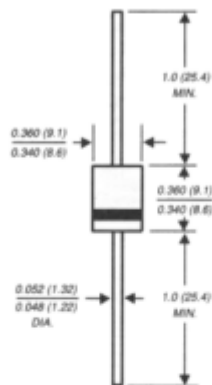
Source: General Semiconductor Databook 1998

# GI820 THRU GI828

## FAST SWITCHING PLASTIC RECTIFIER

Reverse Voltage - 50 to 800 Volts Forward Current - 5.0 Amperes

Case Style P600



Dimensions in inches and (millimeters)

### FEATURES

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



### MECHANICAL DATA

**Case:** Void-free molded plastic body  
**Terminals:** Plated axial leads, solderable per MIL-STD-750, Method 2026  
**Polarity:** Color band denotes cathode end  
**Mounting Position:** Any  
**Weight:** 0.07 ounce, 2.1grams

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	GI820	GI821	GI822	GI824	GI826	GI828	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 non-repetitive peak reverse voltage	V <sub>RSM</sub>	75	150	250	450	650	880	Volts
Maximum average forward rectified current 0.375" (9.5mm) lead length at T <sub>A</sub> =55°C	I <sub>(AV)</sub>	5.0						Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	300.0						Amps
Maximum instantaneous forward voltage at 5.0A T <sub>J</sub> = 25°C at 15.7A T <sub>J</sub> =150°C	V <sub>F</sub>	1.10 1.05						Volts
Maximum 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 1.0						µA mA
Typical junction capacitance (NOTE 1)	C <sub>J</sub>	300.0						pF
Maximum reverse recovery time (NOTE 2)	t <sub>rr</sub>	200.0						ns
Maximum reverse recovery current (NOTE 2)	I <sub>RM(REC)</sub>	2.0						Amps
Typical thermal resistance (NOTE 3)	R <sub>θJA</sub>	10.0						°C/W
Operating junction and storage temperature range	T <sub>J</sub> , T <sub>STG</sub>	-50 to +150						°C

**NOTES:**

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

**RATINGS AND CHARACTERISTIC CURVES GI820 THRU GI828**

