

Silicon Diode

GI824

400V / 5A

DATASHEET

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OEM – General Semiconductor

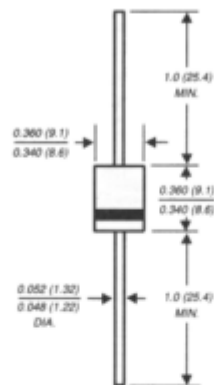
Source: General Semiconductor Databook 1998

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_{RRM}	50	100	200	400	600	800	Volts
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	Volts
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	Volts
Maximum non-repetitive peak reverse voltage	V_{RSM}	75	150	250	450	650	880	Volts
Maximum average forward rectified current 0.375" (9.5mm) lead length at $T_A=55^\circ C$	$I_{(AV)}$	5.0						Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	300.0						Amps
Maximum instantaneous forward voltage at 5.0A $T_J=25^\circ C$ at 15.7A $T_J=150^\circ C$	V_F	1.10 1.05						Volts
Maximum reverse current at rated DC blocking voltage $T_A=25^\circ C$ $T_A=100^\circ C$	I_R	10.0 1.0						μA mA
Typical junction capacitance (NOTE 1)	C_J	300.0						pF
Maximum reverse recovery time (NOTE 2)	t_{rr}	200.0						ns
Maximum reverse recovery current (NOTE 2)	$I_{RM(REC)}$	2.0						Amps
Typical thermal resistance (NOTE 3)	$R_{\theta JA}$	10.0						°C/W
Operating junction and storage temperature range	T_J, T_{STG}	-50 to +150						°C

NOTES:

- (1) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts
- (2) Reverse recovery test conditions: $I_F=1.0A, V_R=30V, di/dt=50A/\mu s,$ and $I_{rr}=10\% I_{FM}$ for measurement of t_{rr}
- (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

