

# Silicon Diode

## **GI850**

50V / 3A

# DATASHEET

from

[www.web-bcs.com](http://www.web-bcs.com)

OEM – General Semiconductor

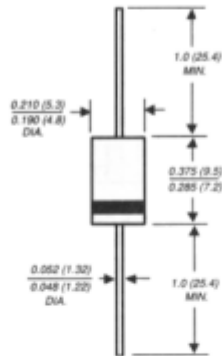
Source: General Semiconductor Databook 1998

# GI850 THRU GI858

## FAST 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
- ◆ Fast switching for high efficiency
- ◆ Construction utilizes void-free molded plastic technique
- ◆ High forward current operation
- ◆ 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	GI850	GI851	GI852	GI854	GI856	GI858	UNITS
Maximum repetitive peak reverse voltage	VRRM	50	100	200	400	600	800	Volts
Maximum RMS voltage	VRMS	35	70	140	280	420	510	Volts
Maximum DC blocking voltage	VDC	50	100	200	400	600	800	Volts
Maximum non-repetitive peak reverse voltage	VRSM	75	150	250	450	650	880	Volts
Maximum average forward rectified current 0.375" (9.5mm) lead length at TA=90°C	IAV	3.0						Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	100.0						Amps
Maximum instantaneous forward voltage at: 3.0A 9.4A, TJ=175°C	VF	1.25 1.10						Volts
Maximum DC reverse current at rated DC blocking voltage TA=25°C TA=100°C	IR	150	150	200	250	300	500	µA
Typical junction capacitance (NOTE 1)	CJ	28.0						pF
Maximum reverse recovery time (NOTE 2)	trr	200.0						ns
Maximum reverse recovery current (NOTE 2)	IRM(REC)	2.0						Amps
Typical thermal resistance (NOTE 3)	REJA REJL	22.0 8.0						°C/W
Operating junction and storage temperature range	TJ, TSTG	-50 to +150						°C

**NOTES:**

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

**RATINGS AND CHARACTERISTIC CURVES GI850 THRU GI858**

