

## Fast Switching Plastic Rectifier

Reverse Voltage 50 to 800 V

Forward Current 3.0 A

### Features

- Plastic package has Underwriters Laboratories 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

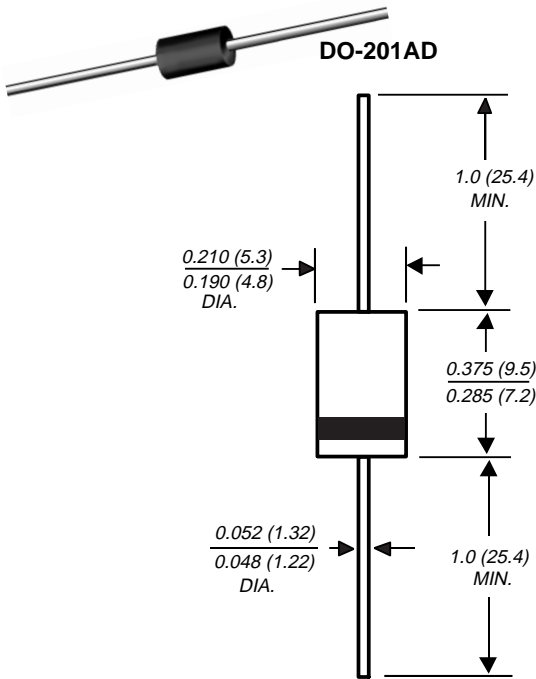
**Case:** JEDEC DO-201AD, molded plastic body

**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



Dimensions in inches and (millimeters)

## Maximum Ratings & Thermal Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	GI850	GI851	GI852	GI854	GI856	GI858	UNITS
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	50	100	200	400	600	800	V
Maximum RMS voltage	V <sub>RMS</sub>	35	70	140	280	420	510	V
Maximum DC blocking voltage	V <sub>DC</sub>	50	100	200	400	600	800	V
Maximum non-repetitive peak reverse voltage	V <sub>RSM</sub>	75	150	250	450	650	880	V
Maximum average forward rectified current 0.375" (9.5mm) lead length at T <sub>A</sub> =90°C	I <sub>F(AV)</sub>	3.0						A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	100						A
Typical thermal resistance (NOTE 1)	R <sub>θJA</sub> R <sub>θJL</sub>	22 8.0						°C/W
Operating junction and storage temperature range	T <sub>J</sub> , T <sub>STG</sub>	-50 to +150						°C

## Electrical Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	GI850	GI851	GI852	GI854	GI856	GI858	UNITS
Maximum instantaneous forward voltage at: 3.0A 9.4A, T <sub>J</sub> =175°C	V <sub>F</sub>	1.25 1.10						V
Maximum DC reverse current at rated DC blocking voltage T <sub>A</sub> =25°C T <sub>A</sub> =100°C	I <sub>R</sub>	10 150   150   200   250   300   500						μA
Typical junction capacitance at 4.0V, 1MHz	C <sub>J</sub>	28						pF
Maximum reverse recovery time at I <sub>F</sub> =1.0A, V <sub>R</sub> =30V, di/dt=50A/μs, I <sub>rr</sub> =10% I <sub>RM</sub>	t <sub>rr</sub>	200						ns
Maximum reverse recovery current at I <sub>F</sub> =1.0A, V <sub>R</sub> =30V, di/dt=50A/μs, I <sub>rr</sub> =10% I <sub>RM</sub>	I <sub>RM(REC)</sub>	2.0						A

### NOTES:

(1) 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** ( $T_A = 25^\circ\text{C}$  unless otherwise noted)

