

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

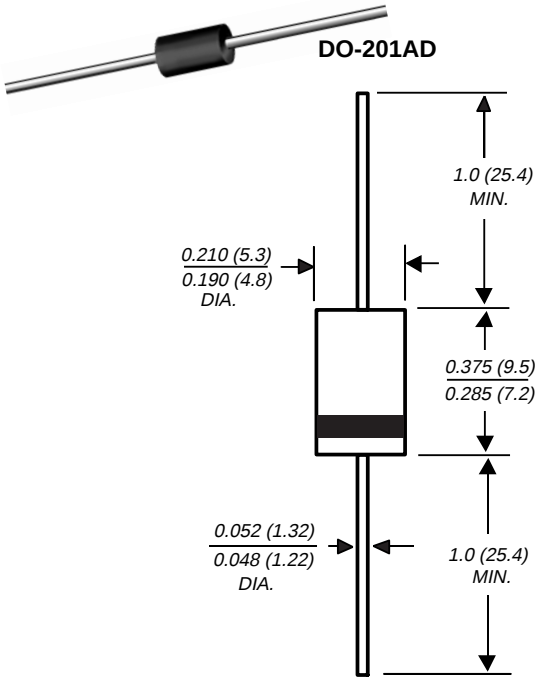
Case: JEDEC DO-201AD, molded plastic body

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 _{RRM}	50	100	200	400	600	800	V
Maximum RMS voltage	V _{RMS}	35	70	140	280	420	510	V
Maximum DC blocking voltage	V _{DC}	50	100	200	400	600	800	V
Maximum non-repetitive peak reverse voltage	V _{RSM}	75	150	250	450	650	880	V
Maximum average forward rectified current 0.375" (9.5mm) lead length at T _A =90°C	I _{F(AV)}	3.0						A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	100						A
Typical thermal resistance (NOTE 1)	R _{θJA} R _{θJL}	22 8.0						°C/W
Operating junction and storage temperature range	T _J , T _{STG}	-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 _J =175°C	V _F	1.25 1.10						V
Maximum DC reverse current at rated DC blocking voltage T _A =25°C T _A =100°C	I _R	10 150 150 200 250 300 500						μA
Typical junction capacitance at 4.0V, 1MHz	C _J	28						pF
Maximum reverse recovery time at I _F =1.0A, V _R =30V, di/dt=50A/μs, I _{rr} =10% I _{RM}	t _{rr}	200						ns
Maximum reverse recovery current at I _F =1.0A, V _R =30V, di/dt=50A/μs, I _{rr} =10% I _{RM}	I _{RM(REC)}	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)

FIG. 1 - FORWARD CURRENT DERATING CURVE

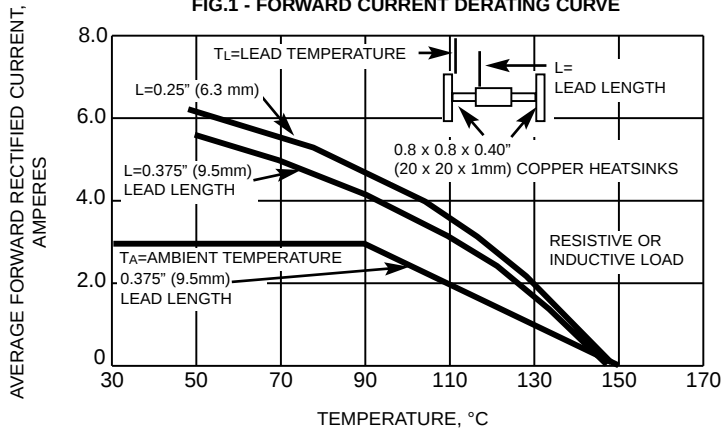


FIG. 2 - MAXIMUM PEAK FORWARD SURGE CURRENT

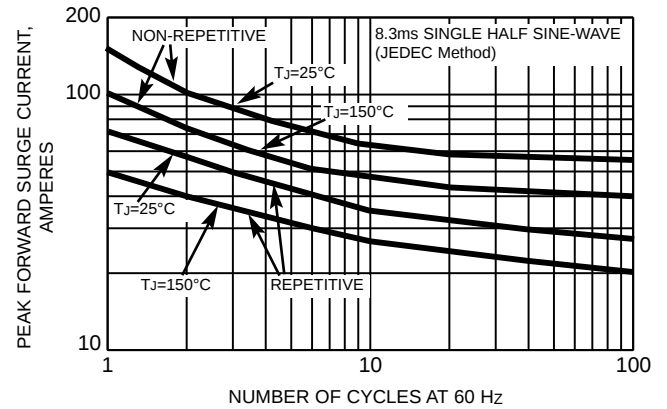


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

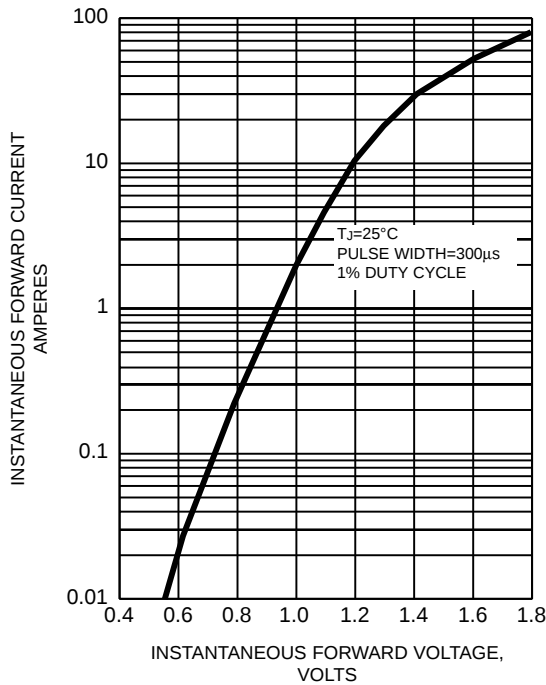


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

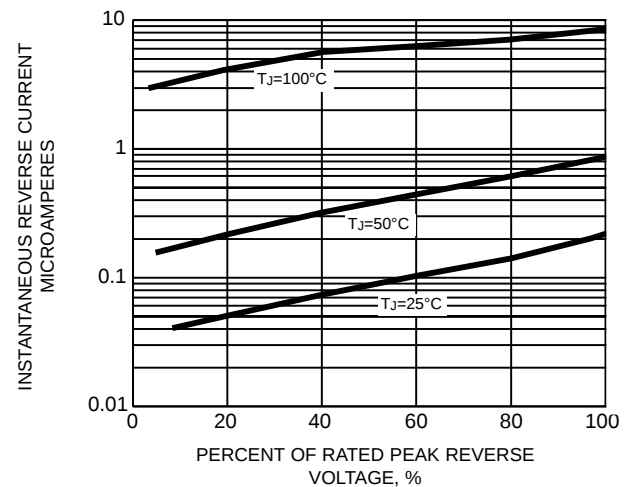


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

