

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

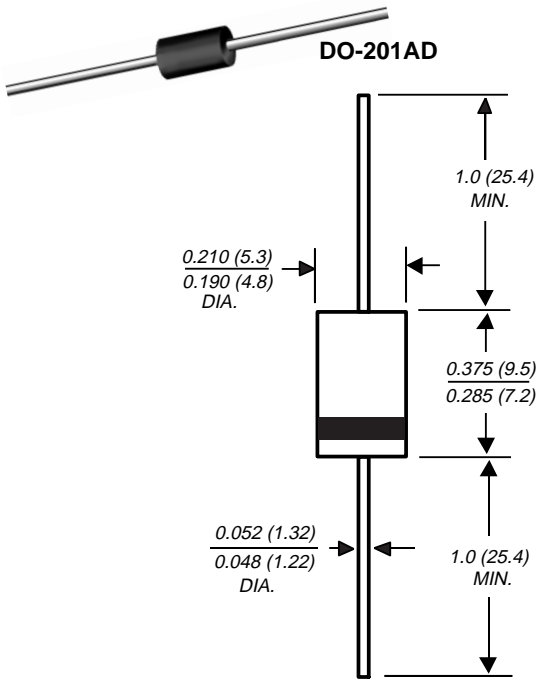
Case: JEDEC DO-201AD, molded plastic body

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)

