

3.0A Rectifier

1N5400 thru 1N5408

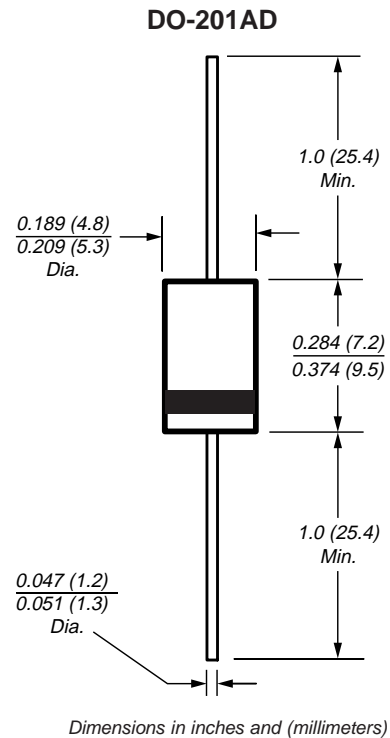
Reverse Voltage: 50 to 1000V
Forward Current: 3.0A

Features

- Diffused Junction
- High Current Capability and Low Forward Voltage Drop
- Surge Overload Rating to 200A Peak
- Low Reverse Leakage Current
- Plastic Material: UL Flammability Classification Rating 94V-0

Mechanical Data

- Case: DO-201AD, Molded Plastic
- Terminals: Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 1.1 grams (approx.)



Datasheet.Directory

Maximum Ratings and Electrical Characteristics @ T_A = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

Characteristic	Symbol	1N 5400	1N 5401	1N 5402	1N 5404	1N 5406	1N 5407	1N 5408	Unit
Peak Repetitive Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	V
Working Peak Reverse Voltage	V _{RWM}								
DC Blocking Voltage	V _R								
RMS Reverse Voltage	V _{R(RMS)}	35	70	140	280	420	560	700	V
Average Rectified Output Current @ T _A = 105°C (Note 1)	I _O	3.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	200							A
Forward Voltage @ I _F = 3.0A	V _{FM}	1.0							V
Peak Reverse Current @ T _A = 25°C at Rated DC Blocking Voltage @ T _A = 150°C	I _{RM}	10 100							μA
Typical Junction Capacitance (Note 2)	C _j	50				25			pF
Typical Thermal Resistance Junction to Ambient	R _{θJA}	15							K/W
Operating and Storage Temperature Range	T _j , T _{STG}	-65 to +150							°C

- Notes: 1. Valid provided that leads are kept at ambient temperature at a distance of 9.5mm from the case.
2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

Ratings and Characteristic Curves (TA = 25°C unless otherwise noted)

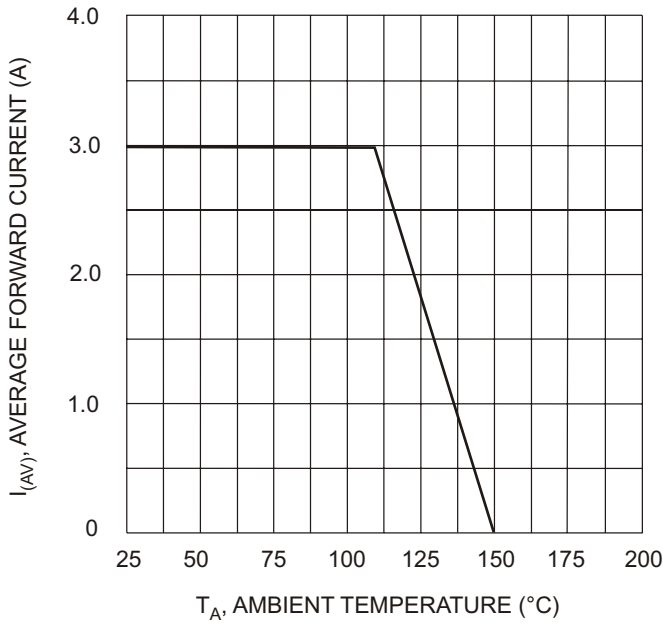


Fig. 1 Forward Current Derating Curve

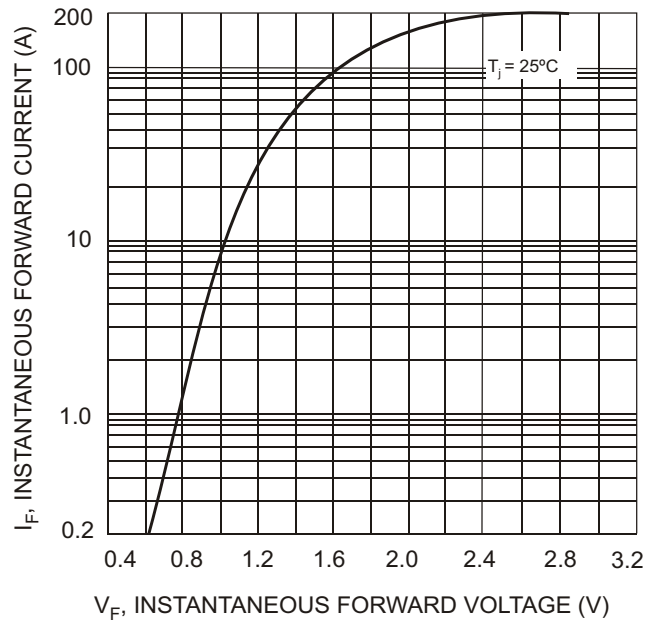


Fig. 2 Typical Forward Characteristics

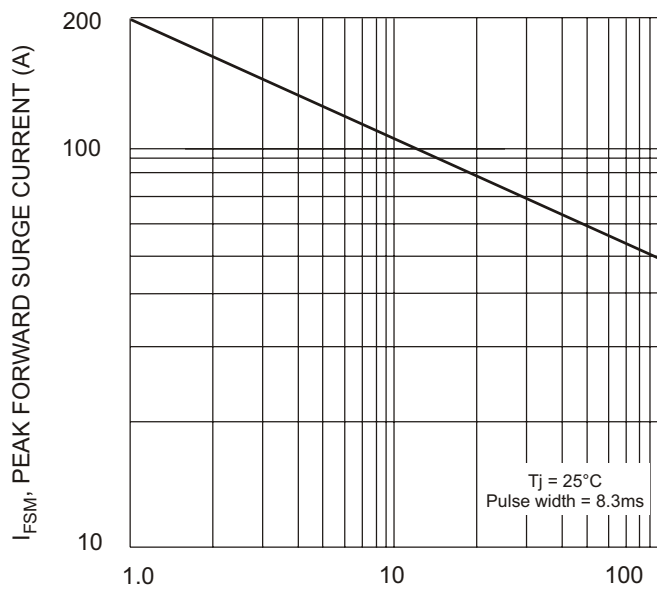


Fig. 3 Maximum Non-Repetitive Surge Current

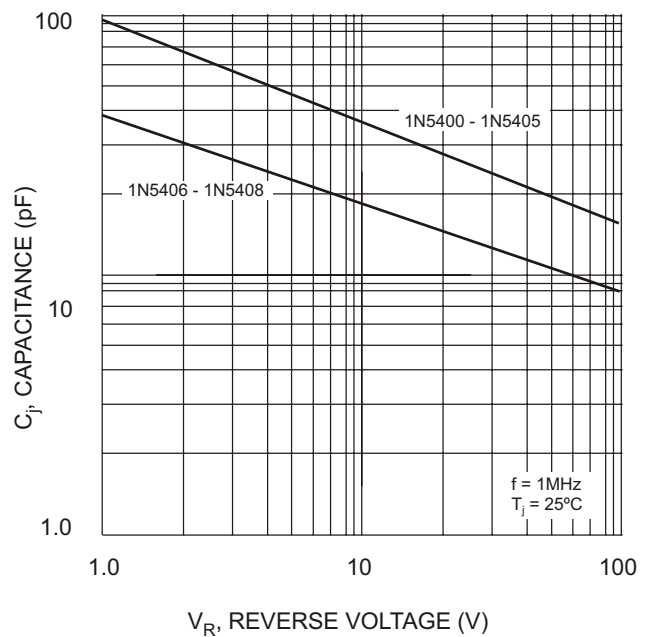


Fig. 4 Typical Junction Capacitance