

# 3.0A Rectifier

## 1N5400 thru 1N5408

Reverse Voltage: 50 to 1000V

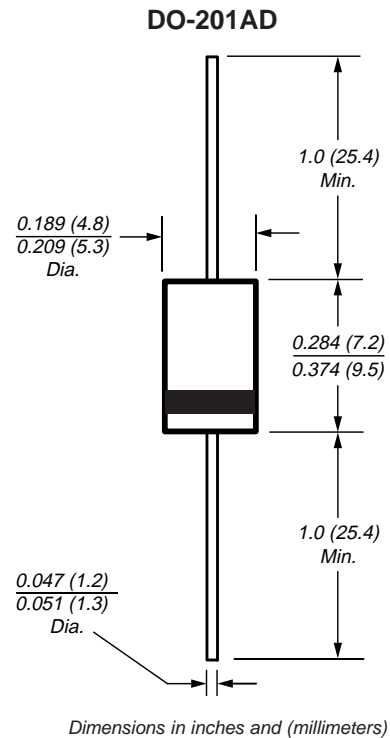
Forward Current: 3.0A

### 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.)



### Maximum Ratings and Electrical Characteristics @ T<sub>A</sub> = 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 <sub>RRM</sub>	50	100	200	400	600	800	1000	V	
Working Peak Reverse Voltage	V <sub>RWM</sub>									
DC Blocking Voltage	V <sub>R</sub>									
RMS Reverse Voltage	V <sub>R(RMS)</sub>	35	70	140	280	420	560	700	V	
Average Rectified Output Current @ T <sub>A</sub> = 105°C (Note 1)	I <sub>O</sub>	3.0							A	
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	200							A	
Forward Voltage @ I <sub>F</sub> = 3.0A	V <sub>FM</sub>	1.0							V	
Peak Reverse Current @ T <sub>A</sub> = 25°C at Rated DC Blocking Voltage @ T <sub>A</sub> = 150°C	I <sub>RM</sub>	10 100							μA	
Typical Junction Capacitance (Note 2)	C <sub>j</sub>	50				25				pF
Typical Thermal Resistance Junction to Ambient	R <sub>θJA</sub>	15							K/W	
Operating and Storage Temperature Range	T <sub>j</sub> , T <sub>STG</sub>	-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)**

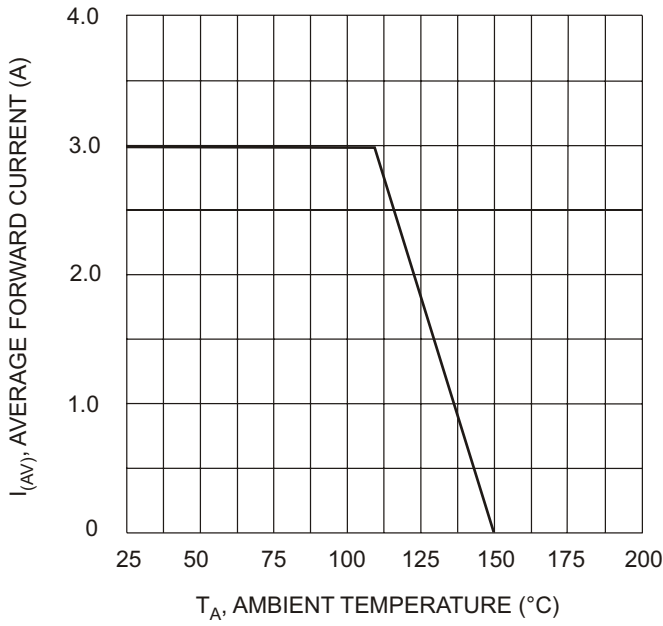


Fig. 1 Forward Current Derating Curve

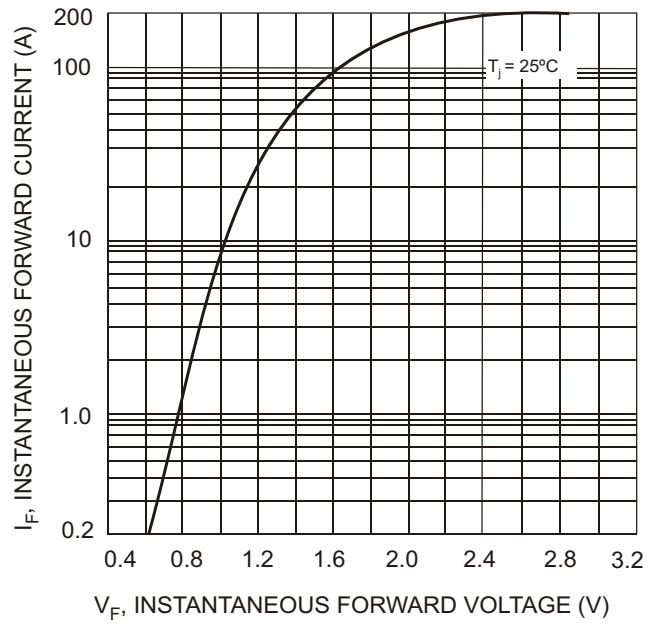


Fig. 2 Typical Forward Characteristics

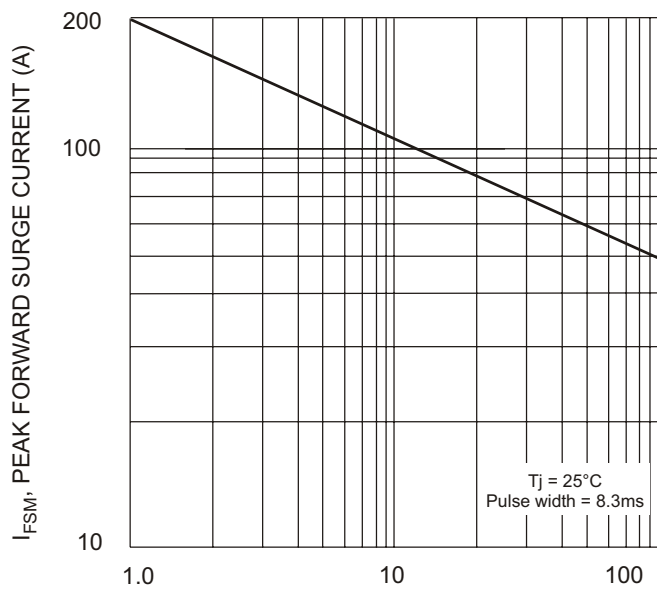


Fig. 3 Maximum Non-Repetitive Surge Current

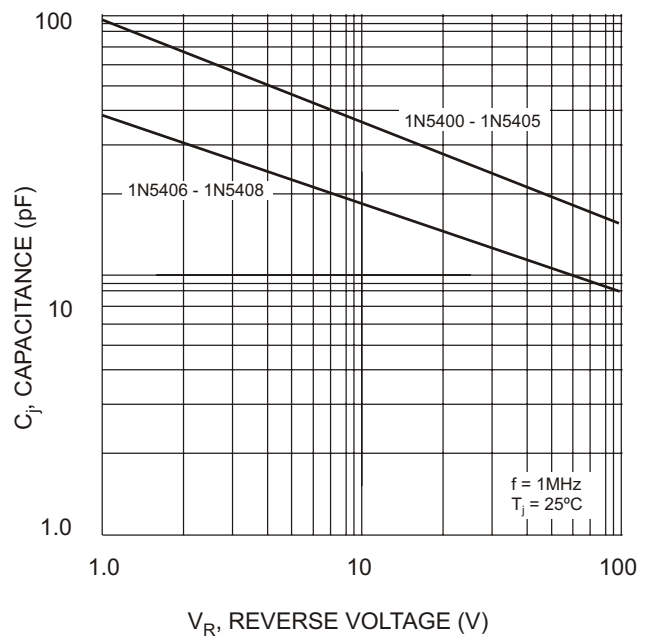


Fig. 4 Typical Junction Capacitance