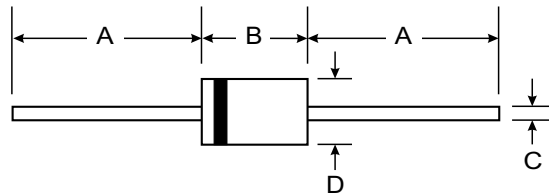


Features

- Diffused Junction
- Fast Switching for High Efficiency
- High Current Capability and Low Forward Voltage Drop
- Surge Overload Rating to 150 A Peak
- Low Reverse Leakage Current
- Plastic Material: UL Flammability Classification Rating 94V-0



Mechanical Data

- Case: Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Marking: Type Number
- Weight: 1.12 grams (approx.)

DO-201AD		
Dim	Min	Max
A	25.40	—
B	7.20	9.50
C	1.20	1.30
D	4.80	5.30
All Dimensions in mm		

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	PR 3001	PR 3002	PR 3003	PR 3004	PR 3005	Unit
Peak Repetitive Reverse Voltage	V _{RRM}	50	100	200	400	600	V
Working Peak Reverse Voltage	V _{RWM}						
DC Blocking Voltage	V _R						
RMS Reverse Voltage	V _{R(RMS)}	35	70	140	280	420	V
Average Rectified Output Current (Note 1)	I _O	3.0					A
@ T _A = 90°C							
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave Superimposed on Rated Load (JEDEC Method)	I _{FSM}	150					A
Forward Voltage	V _{FM}	1.2					V
@ I _F = 3.0A							
Peak Reverse Current	I _{RM}	5.0					μA
@ T _A = 25°C							
@ T _A = 100°C							
Reverse Recovery Time (Note 3)	t _{rr}	150				250	ns
Typical Junction Capacitance (Note 2)	C _j	50					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 maintained 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.
 3. Measured with I_F = 0.5A, I_R = 1.0A, I_{rr} = 0.25A. See figure 5.

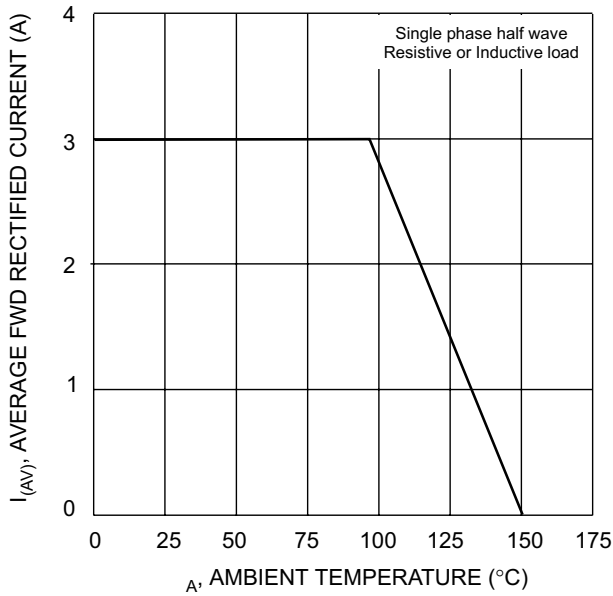


Fig. 1 Forward Derating Curve

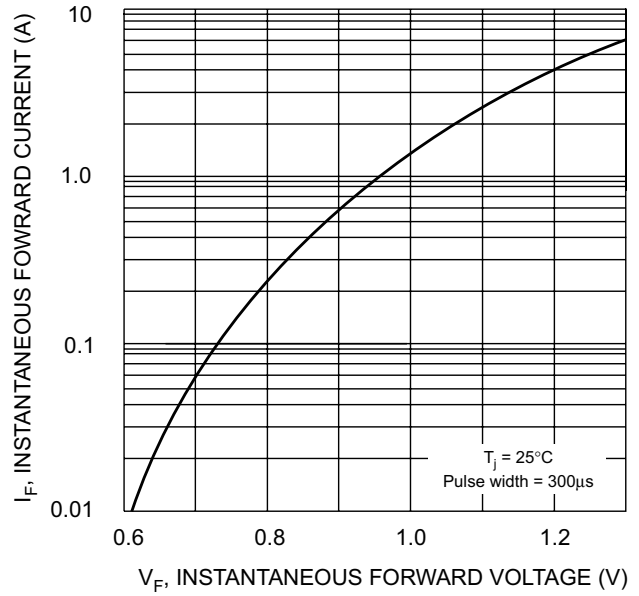


Fig. 2 Typical Forward Characteristics

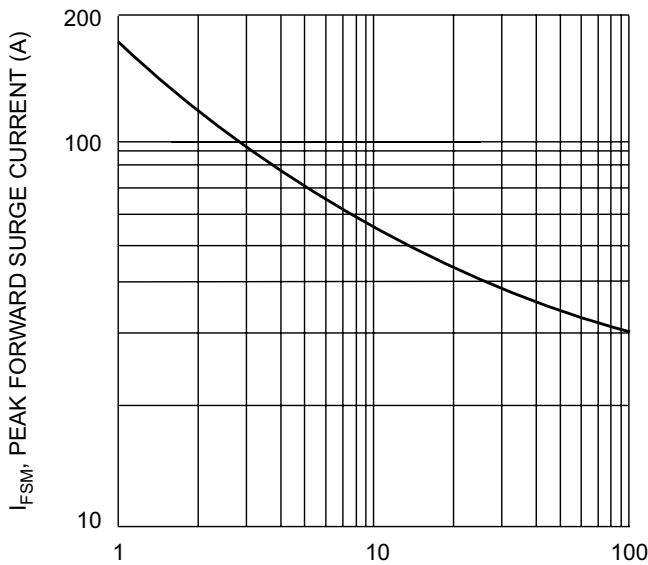


Fig. 3 Peak Forward Surge Current

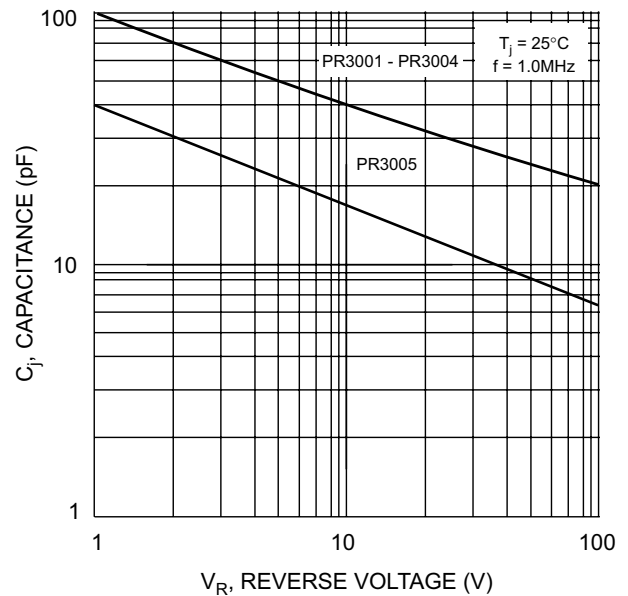
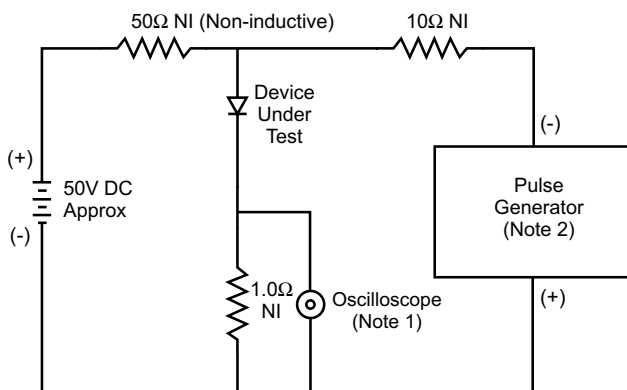


Fig. 4 Typical Junction Capacitance



Notes:

1. Rise Time = 7.0ns max. Input Impedance = 1.0MΩ, 22pF.
2. Rise Time = 10ns max. Input Impedance = 50Ω.

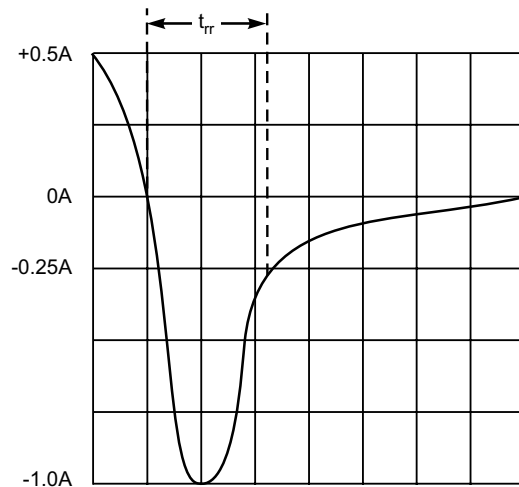


Fig. 5 Reverse Recovery Time Characteristic and Test Circuit