

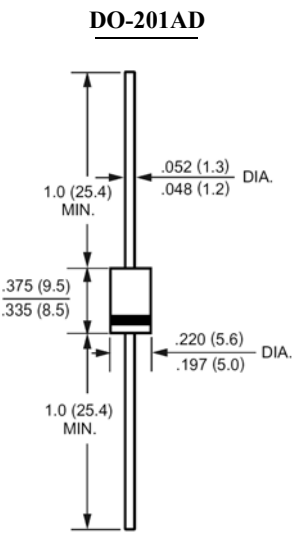
REVERSE VOLTAGE: 50 to 1000 VOLTS
FORWARD CURRENT: 3.0 AMPERE

FEATURES

- High current capability
- High reliability
- Low forward voltage drop
- Low leakage
- High switching capability

MECHANICAL DATA

Case: Molded plastic, DO-201AD
Epoxy: UL 94V-O rate flame retardant
Lead: Axial leads, solderable per MIL-STD-202 method 208 guaranteed
Polarity: Color band denotes cathode end
Mounting position: Any
Weight: 0.04ounce, 1.1gram



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

	Symbols	FR301	FR302	FR303	FR304	FR305	FR306	FR307	Units
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V _{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current .375"(9.5mm) Lead Length at T _A =55℃	I _(AV)	3.0							Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	150							Amp
Maximum Forward Voltage at 3.0A DC and 25℃	V _F	1.3							Volts
Maximum Reverse Current at T _A =25℃ at Rated DC Blocking Voltage T _A =100℃	I _R	10.0 150							uAmp
Typical Junction Capacitance (Note 1)	C _J	60							pF
Typical Thermal Resistance (Note 2)	R _{θJA}	20							℃/W
Maximum Reverse Recovery Time (Note 3)	T _{RR}	150				250	500		nS
Operating and Storage Temperature Range	T _J , T _{stg}	-65 to +150							℃

NOTES:

- 1- Measured at 1 MHz and applied reverse voltage of 4.0 VDC.
- 2- Thermal Resistance From Junction to Ambient 0.375"(9.5mm) lead length P.C.B. Mounted.
- 3- Reverse Recovery Test Conditions: I_F=.5A, I_R=1A, I_{RR}=.25A.

RATINGS AND CHARACTERISTIC CURVES

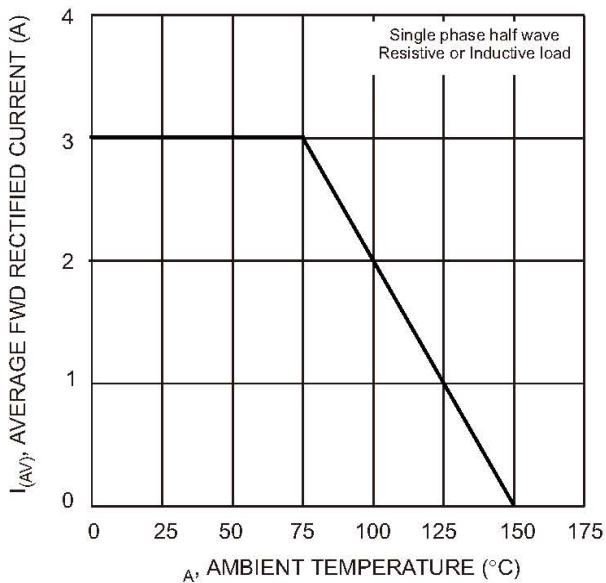


Fig. 1 Forward Derating Curve

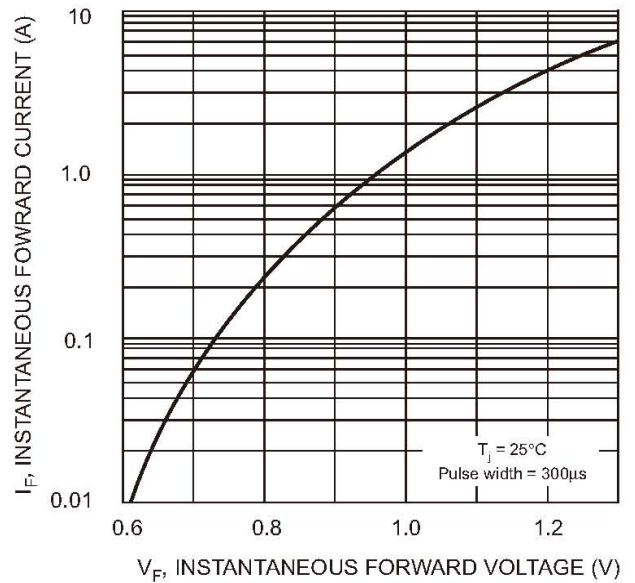


Fig. 2 Typical Forward Characteristics

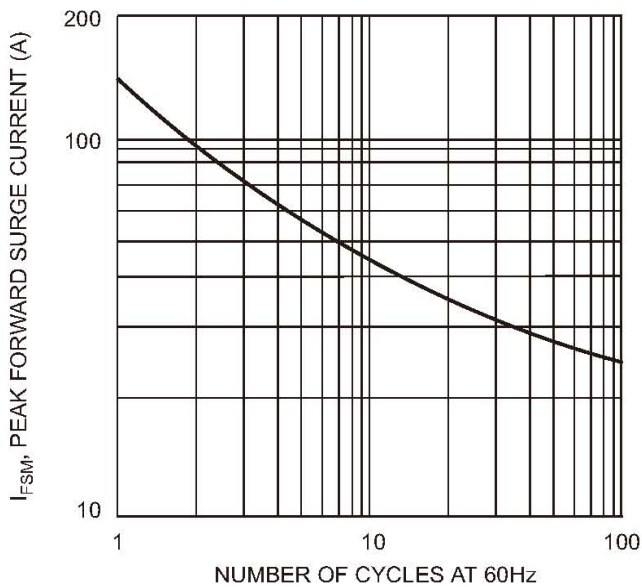


Fig. 3 Peak Forward Surge Current

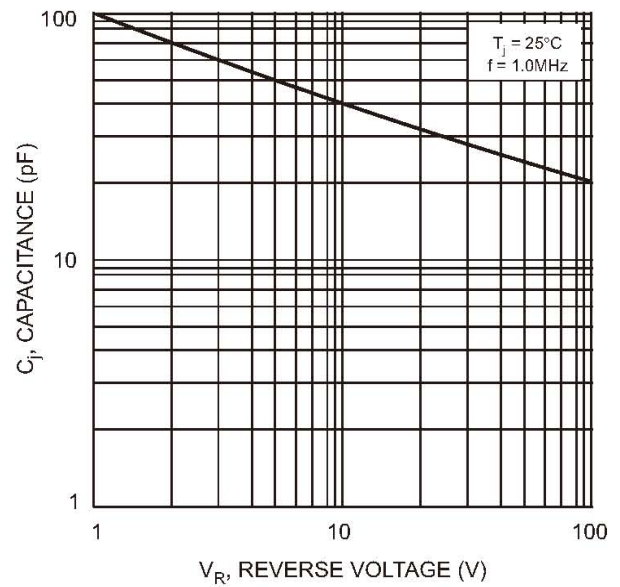
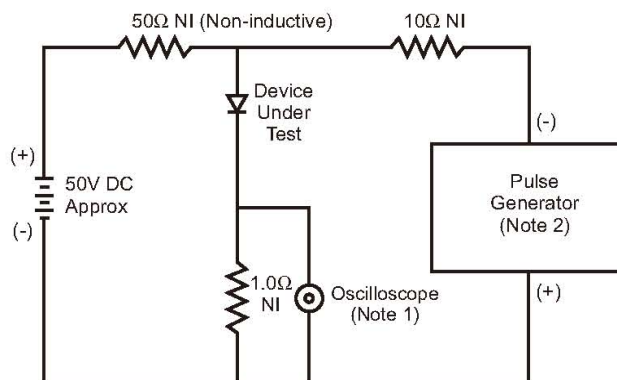


Fig. 4 Typical Junction Capacitance



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

