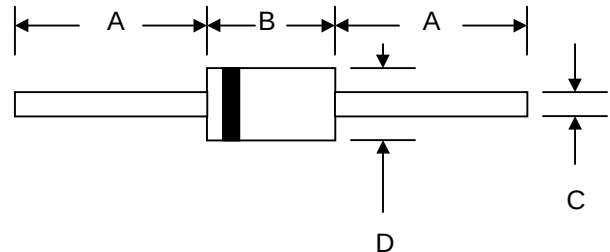


Features

- Diffused Junction
- Low Forward Voltage Drop
- High Current Capability
- High Reliability
- High Surge Current Capability

Mechanical Data

- Case: Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 1.2 grams (approx.)
- Mounting Position: Any
- Marking: Type Number
- **Lead Free: For RoHS / Lead Free Version**



DO-201AD		
Dim	Min	Max
A	28.8	—
B	8.90	9.50
C	1.20	1.30
D	5.00	5.60
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	ER501	ER502	ER503	ER504	ER505	ER506	ER507	ER508	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	VRRM VRWM VR	50	100	150	200	300	400	500	600	V
RMS Reverse Voltage	VR(RMS)	35	70	105	140	210	280	350	420	V
Average Rectified Output Current (Note 1) @TA = 55°C	Io	5.0								A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	150								A
Forward Voltage @IF = 5.0A	VFM	0.975				1.30		1.70		V
Peak Reverse Current @TA = 25°C At Rated DC Blocking Voltage @TA = 100°C	IRM	5.0 100								µA
Reverse Recovery Time (Note 2)	trr	35								nS
Typical Junction Capacitance (Note 3)	Cj	100				60				pF
Operating Temperature Range	Tj	-65 to +150								°C
Storage Temperature Range	TSTG	-65 to +150								°C

*Glass passivated forms are available upon request

Note: 1. Leads maintained at ambient temperature at a distance of 9.5mm from the case

2. Measured with I_F = 0.5A, I_R = 1.0A, I_{RR} = 0.25A. See figure 5.

3. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

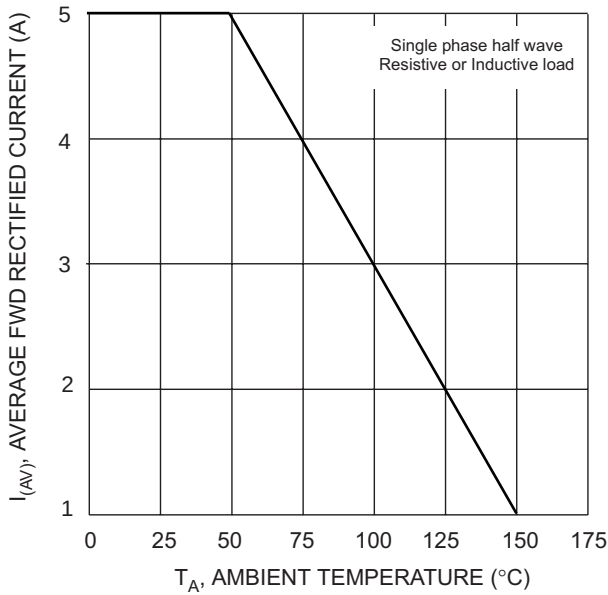


Fig. 1 Forward Current Derating Curve

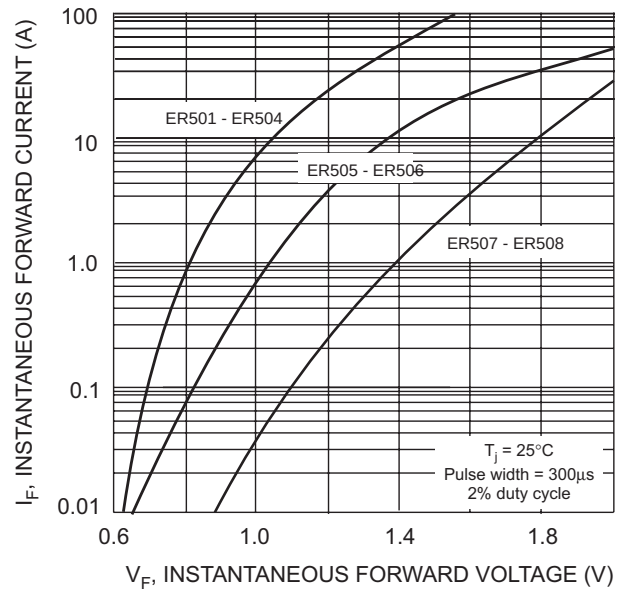


Fig. 2 Typical Forward Characteristics

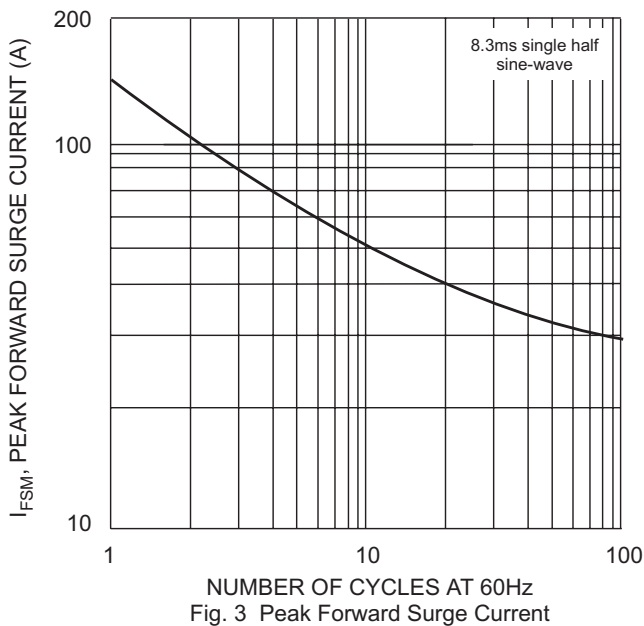


Fig. 3 Peak Forward Surge Current

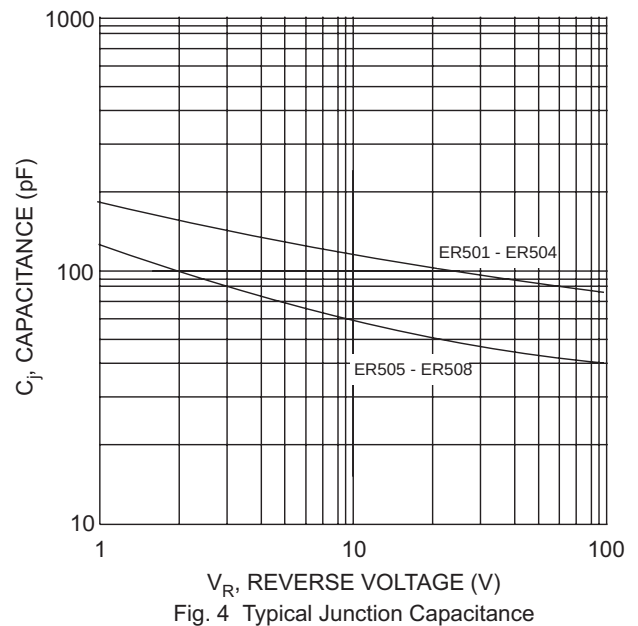
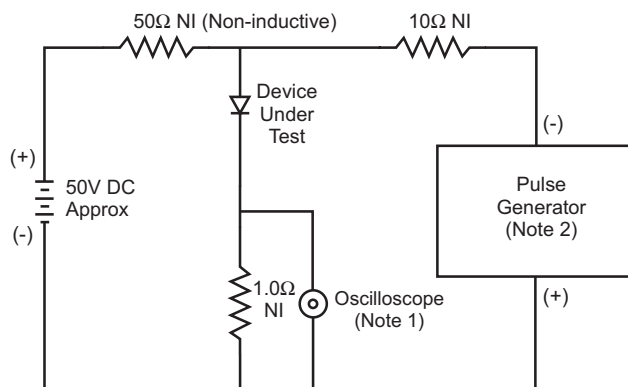
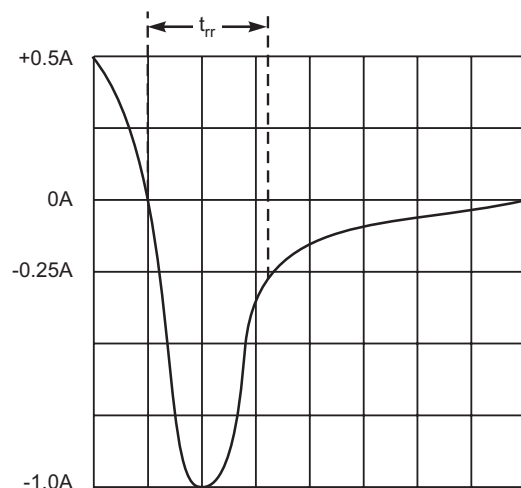


Fig. 4 Typical Junction Capacitance



Notes:

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



Set time base for 5/10ns/cm

Fig. 5 Reverse Recovery Time Characteristic and Test Circuit