



ER201 – ER208



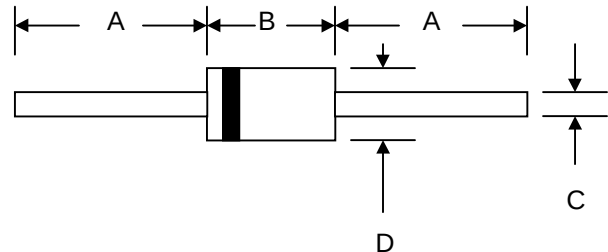
2.0A SUPERFAST RECTIFIER

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: 0.40 grams (approx.)
- Mounting Position: Any
- Marking: Type Number
- **Lead Free: For RoHS / Lead Free Version**



DO-15		
Dim	Min	Max
A	24.5	—
B	5.50	7.62
C	0.60	0.80
D	2.60	3.60
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	ER201	ER202	ER203	ER204	ER205	ER206	ER207	ER208	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM} V _{RWM} V _R	50	100	150	200	300	400	500	600	V
RMS Reverse Voltage	V _{R(RMS)}	35	70	105	140	210	280	350	420	V
Average Rectified Output Current (Note 1) @T _A = 55°C	I _O	2.0								A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	50								A
Forward Voltage @I _F = 2.0A	V _{FM}	0.95				1.30		1.70		V
Peak Reverse Current @T _A = 25°C At Rated DC Blocking Voltage @T _A = 100°C	I _{RM}	5.0 100								μA
Reverse Recovery Time (Note 2)	t _{rr}	35								nS
Typical Junction Capacitance (Note 3)	C _j	40				30				pF
Operating Temperature Range	T _j	-65 to +150								°C
Storage Temperature Range	T _{STG}	-65 to +150								°C

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.

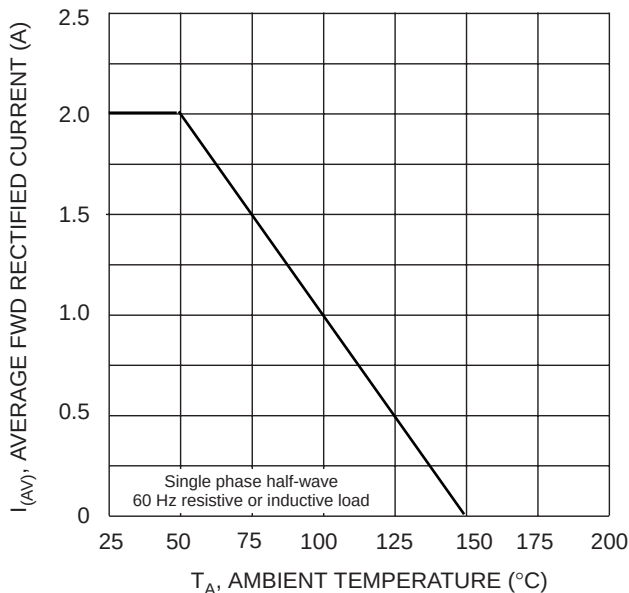


Fig. 1 Forward Current Derating Curve

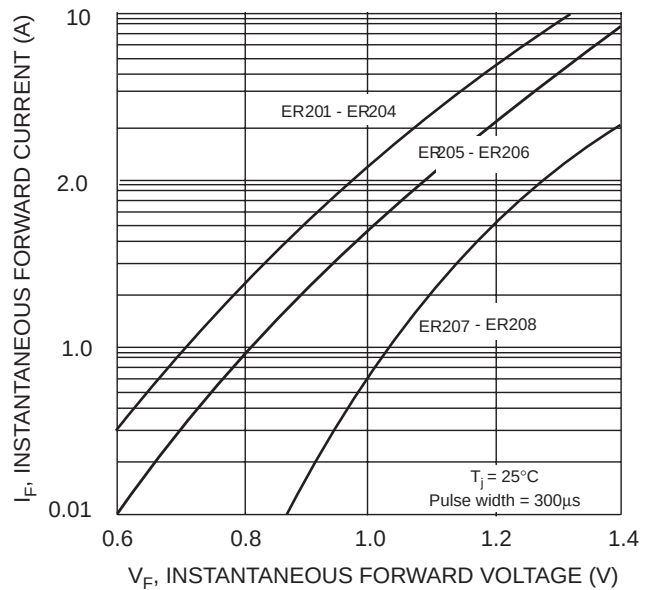


Fig. 2 Typical Forward Characteristics

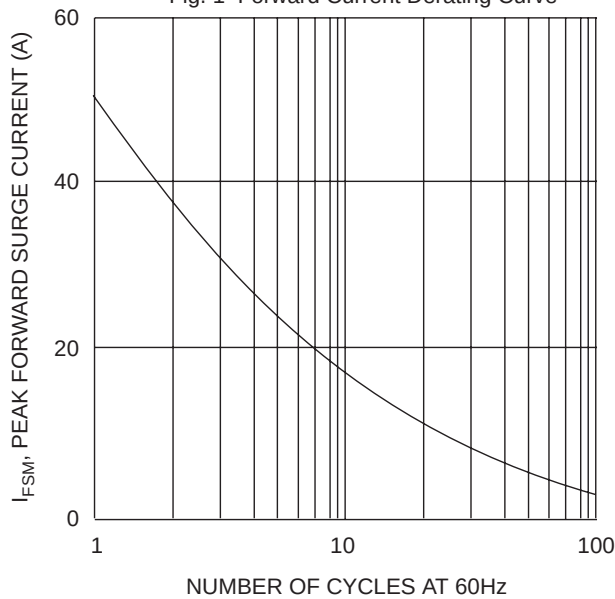


Fig. 3 Peak Forward Surge Current

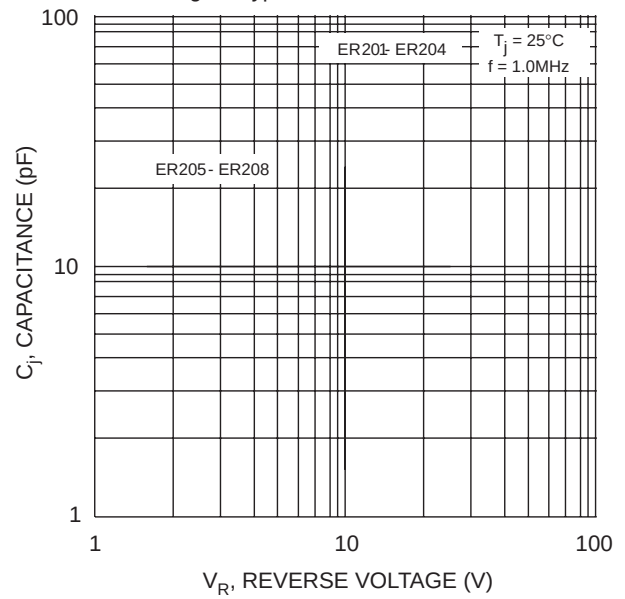
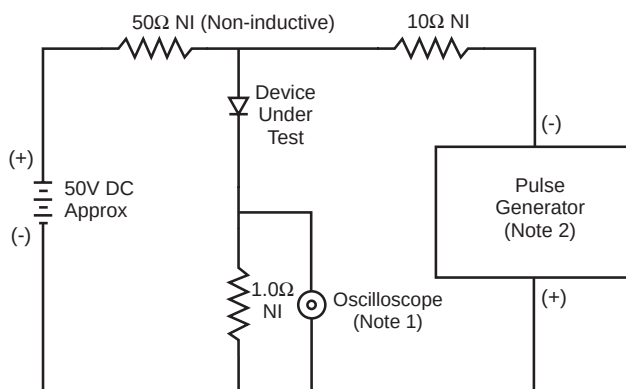


Fig. 4 Typical Junction Capacitance



Notes:

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

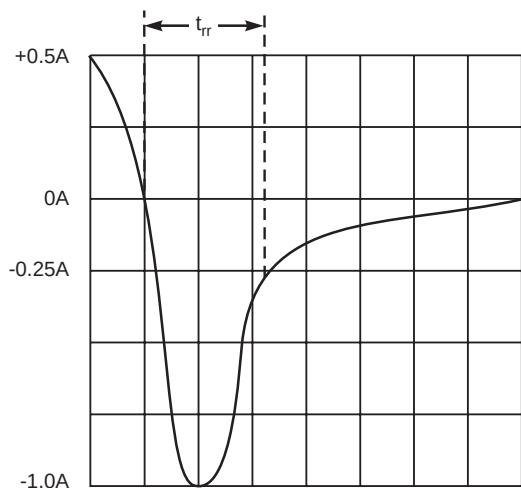


Fig. 5 Reverse Recovery Time Characteristic and Test Circuit