

VOLTAGE RANGE: 50 - 600V

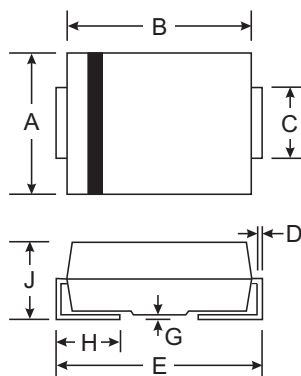
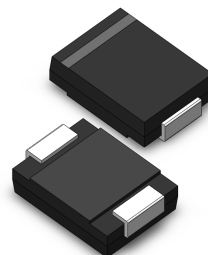
CURRENT: 3.0 A

Features

- Glass Passivated Die Construction
- Ideally Suited for Automatic Assembly
- Low Forward Voltage Drop, High Efficiency
- Low Power Loss
- Super-Fast Recovery Time
- Plastic Case Material has UL Flammability Classification Rating 94V-O

Mechanical Data

- Case: SMC/DO-214AB, Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Marking: Type Number
- Weight: 0.21 grams (approx.)



SMC/DO-214AB		
Dim	Min	Max
A	5.59	6.22
B	6.60	7.11
C	2.75	3.18
D	0.15	0.31
E	7.75	8.13
G	0.10	0.20
H	0.76	1.52
J	2.00	2.62
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	ER3A	ER3B	ER3C	ER3D	ER3E	ER3G	ER3J	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	VRRM VRWM VR	50	100	150	200	300	400	600	V
RMS Reverse Voltage	VR(RMS)	35	70	105	140	210	280	420	V
Average Rectified Output Current @T _L = 75°C	IO	3.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	100							A
Forward Voltage @IF = 3.0A	VFM	0.95				1.25		1.7	V
Peak Reverse Current @TA = 25°C At Rated DC Blocking Voltage @TA = 100°C	IRM	5.0 500							μA
Reverse Recovery Time (Note 1)	trr	35							nS
Typical Junction Capacitance (Note 2)	Cj	45							pF
Typical Thermal Resistance (Note 3)	RθJL	16							°C/W
Operating and Storage Temperature Range	Tj, TSTG	-65 to +150							°C

Note: 1. Measured with I_F = 0.5A, I_R = 1.0A, I_{rr} = 0.25A. See figure 5.
 2. Measured at 1.0 MHz and applied reverse voltage of 4.0 V DC.
 3. Mounted on P.C. Board with 8.0mm² land area.

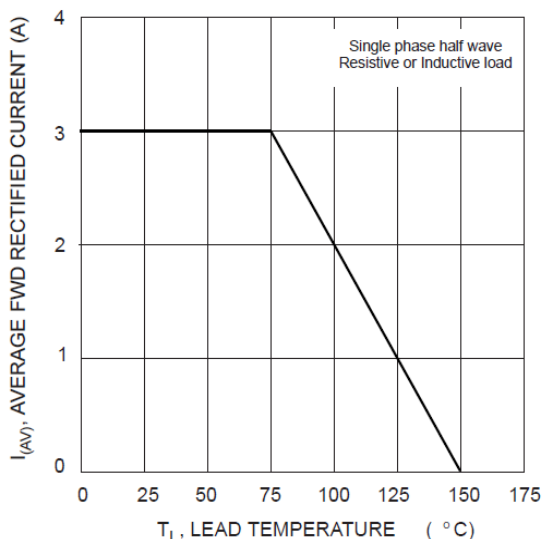


Fig. 1 Forward Current Derating Curve

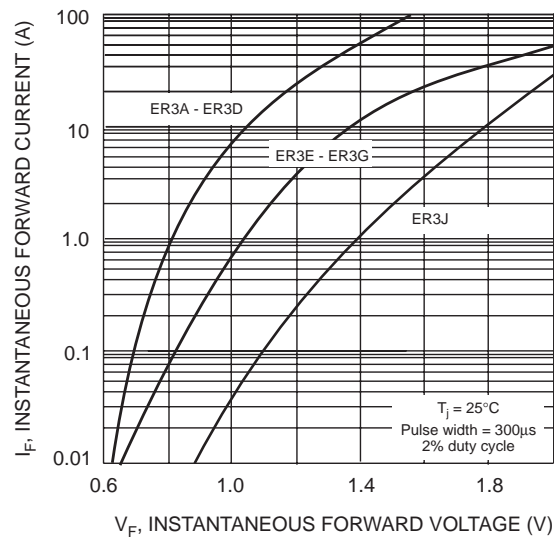


Fig. 2 Typical Forward Characteristics

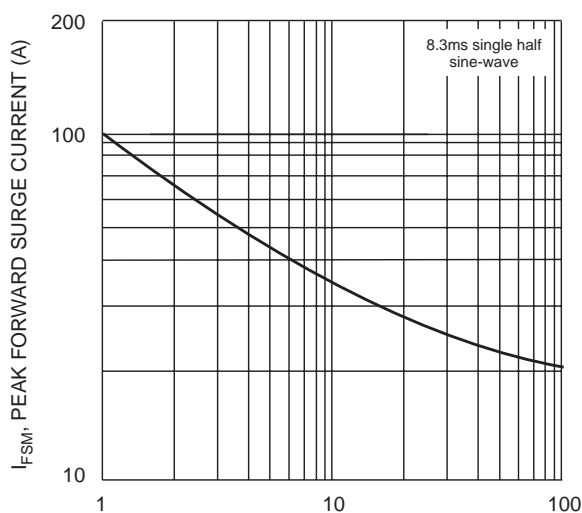


Fig. 3 Peak Forward Surge Current

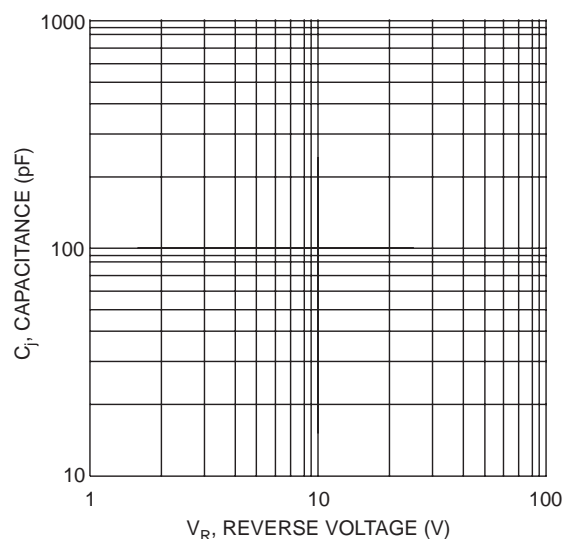
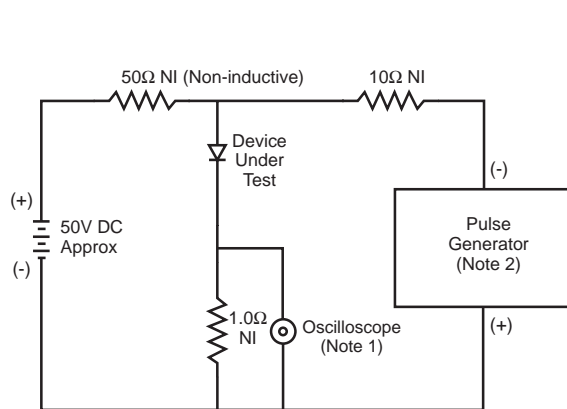


Fig. 4 Typical Junction Capacitance



Notes:

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

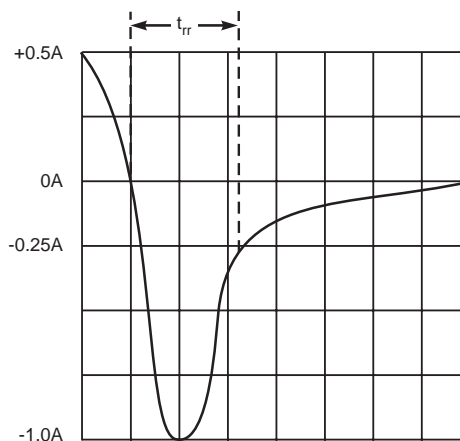


Fig. 5 Reverse Recovery Time Characteristic and Test Circuit