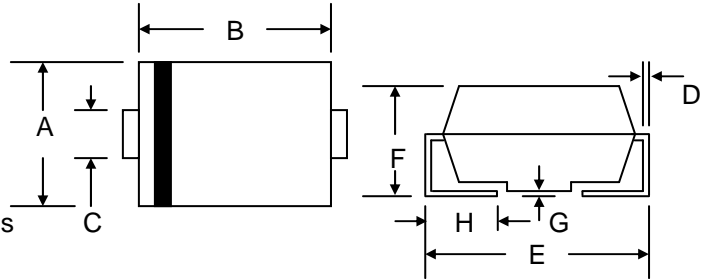


Features

- Glass Passivated Die Construction
- Ideally Suited for Automatic Assembly
- Low Forward Voltage Drop, High Efficiency
- Surge Overload Rating to 30A Peak
- Low Power Loss
- Super-Fast Recovery Time
- Ideally Suited for Use in High Frequency SMPS, Inverters and As Free Wheeling Diodes



Mechanical Data

- Case: SMB/DO-214AA, Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Marking: Type Number
- Weight: 0.093 grams (approx.)
- **Lead Free: For RoHS / Lead Free Version, Add "-LF" Suffix to Part Number, See Page 4**

SMB/DO-214AA		
Dim	Min	Max
A	3.30	3.94
B	4.06	4.70
C	1.91	2.11
D	0.152	0.305
E	5.08	5.59
F	2.13	2.44
G	0.051	0.203
H	0.76	1.27
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	ER1A	ER1B	ER1C	ER1D	ER1E	ER1G	ER1J	Unit	
Peak Repetitive Reverse Voltage	V _{RRM}	50	100	150	200	300	400	600	V	
Working Peak Reverse Voltage	V _{RWM}									
DC Blocking Voltage	V _R									
RMS Reverse Voltage	V _{R(RMS)}	35	70	105	140	210	280	420	V	
Average Rectified Output Current @ _{T_L} = 110°C	I _O	1.0							A	
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I _{FSM}	30							A	
Forward Voltage @ _{I_F} = 1.0A	V _{FM}	0.95				1.25		1.7	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 1)	t _{rr}	35								nS
Typical Junction Capacitance (Note 2)	C _J	10								pF
Thermal Resistance Junction to Ambient (Note 3)	R _{JA}	75								°C/W
Thermal Resistance Junction to Lead (Note 3)	R _{JL}	25								
Operating and Storage Temperature Range	T _J , T _{STG}	-55 to +150							°C	

- Note: 1. Measured with I_F = 0.5A, I_R = 1.0A, I_{RR} = 0.25A.
 2. Measured at 1.0 MHz and applied reverse voltage of 4.0 V DC.
 3. Mounted on PCB with 5.0mm x 5.0mm x 0.013mm thick copper pads.

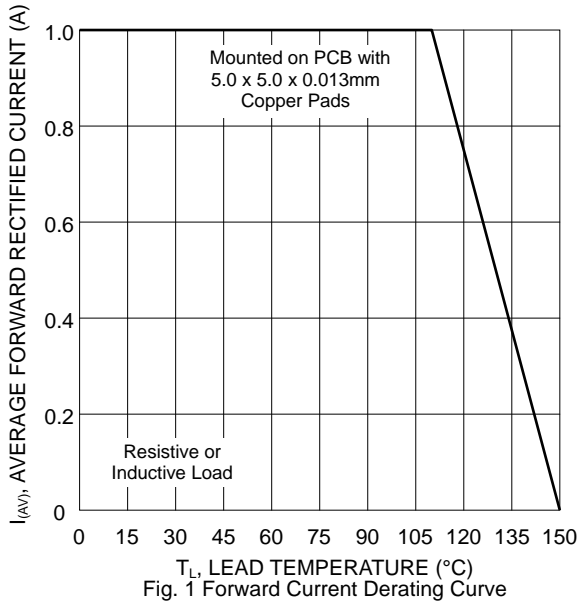


Fig. 1 Forward Current Derating Curve

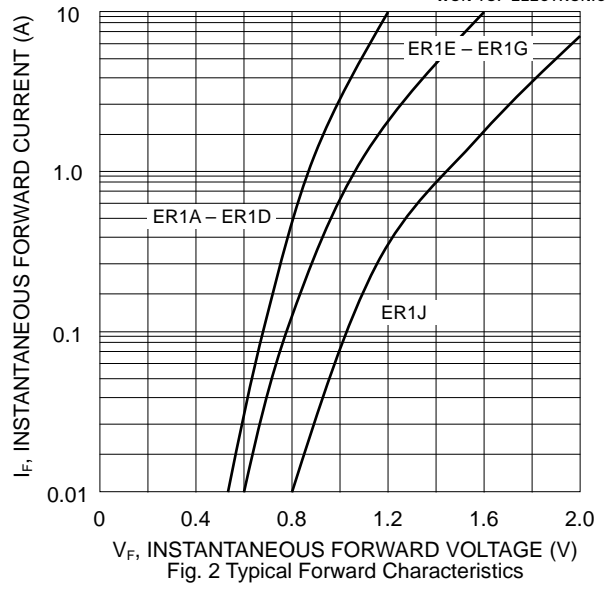


Fig. 2 Typical Forward Characteristics

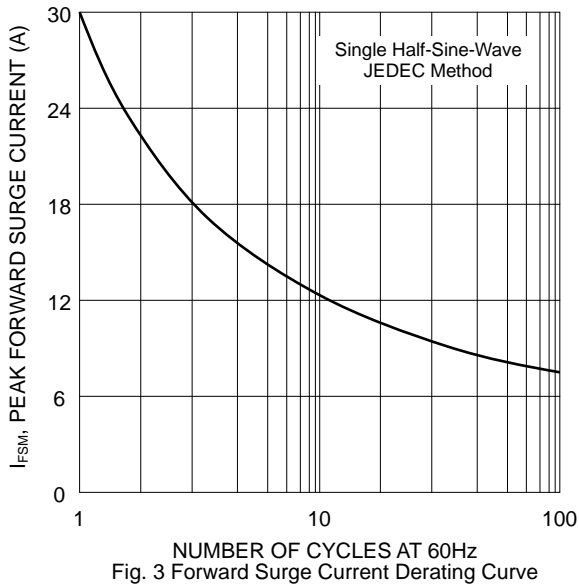


Fig. 3 Forward Surge Current Derating Curve

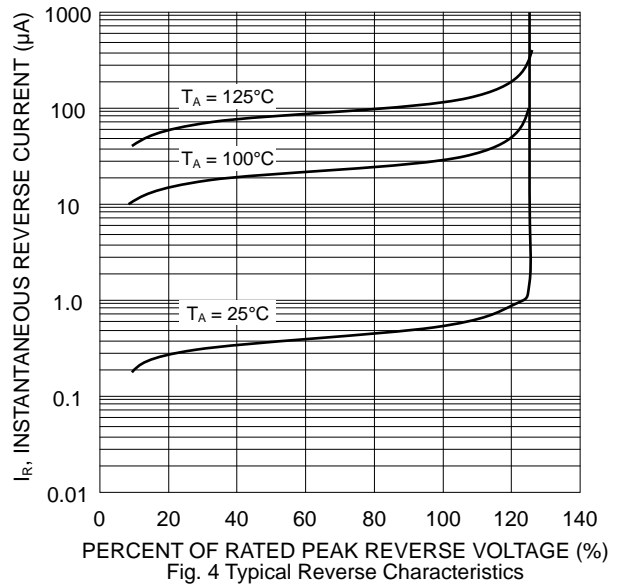


Fig. 4 Typical Reverse Characteristics

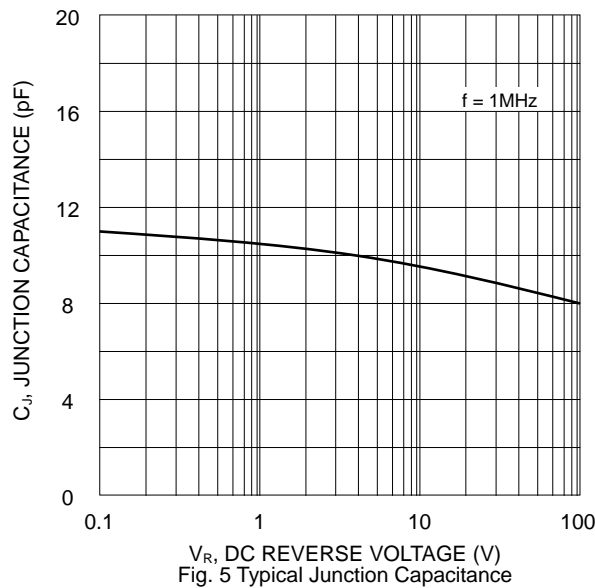
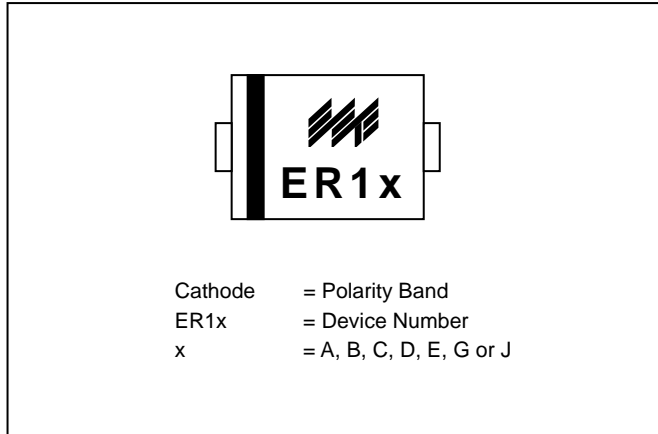
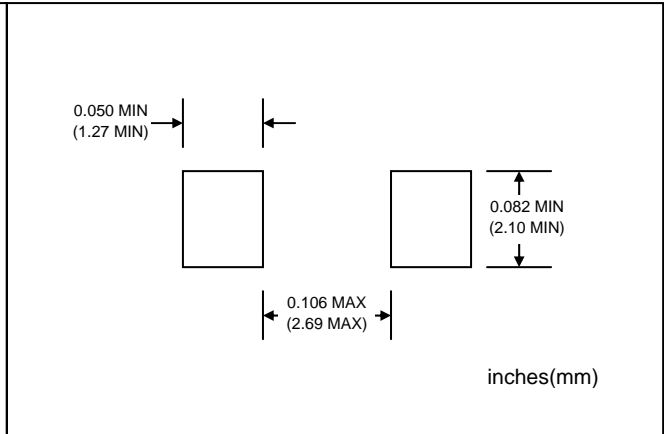


Fig. 5 Typical Junction Capacitance

MARKING INFORMATION

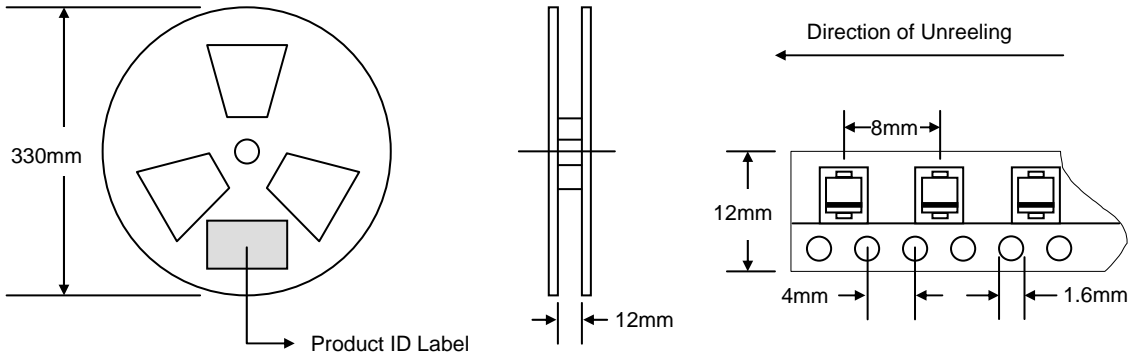


RECOMMENDED FOOTPRINT



PACKAGING INFORMATION

TAPE & REEL




Reel Diameter (mm)	Quantity (PCS)	Inner Box Size L x W x H (mm)	Quantity (PCS)	Carton Size L x W x H (mm)	Quantity (PCS)	Approx. Gross Weight (KG)
330	3,000	340 x 337 x 45	6,000	370 x 370 x 420	48,000	14.0

Note: 1. Paper reel, white or gray color.
2. Components are packed in accordance with EIA standard 481-1 and 481-2.

ORDERING INFORMATION

Product No.	Package Type	Shipping Quantity
ER1A-T3	SMB	3000/Tape & Reel
ER1B-T3	SMB	3000/Tape & Reel
ER1C-T3	SMB	3000/Tape & Reel
ER1D-T3	SMB	3000/Tape & Reel
ER1E-T3	SMB	3000/Tape & Reel
ER1G-T3	SMB	3000/Tape & Reel
ER1J-T3	SMB	3000/Tape & Reel

1. Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.
2. **To order RoHS / Lead Free version (with Lead Free finish), add "-LF" suffix to part number above. For example, ER1A-T3-LF.**

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