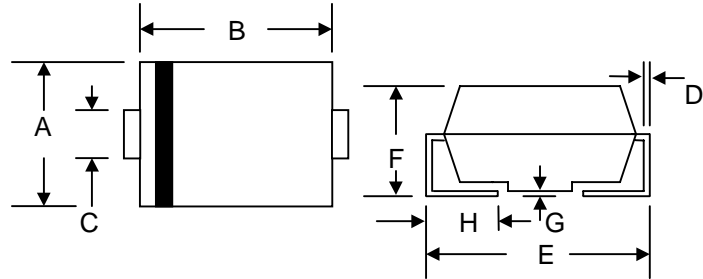


1.0A SURFACE MOUNT SCHOTTKY BARRIER DIODE

Features

- Schottky Barrier Chip
- Ideally Suited for Automatic Assembly
- Low Power Loss, High Efficiency
- Surge Overload Rating to 30A Peak
- For Use in Low Voltage Application
- Guard Ring Die Construction
- Plastic Case Material has UL Flammability Classification Rating 94V-O



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 @ $T_A=25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	SK12	SK13	SK14	SK15	SK16	SK18	SK19	S110	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	20	30	40	50	60	80	90	100	V
Working Peak Reverse Voltage	V_{RWM}									
DC Blocking Voltage	V_R									
RMS Reverse Voltage	$V_{R(RMS)}$	14	21	28	35	42	56	64	71	V
Average Rectified Output Current @ $T_L = 75^\circ\text{C}$	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 @ $I_F = 1.0\text{A}$	V_{FM}	0.50		0.70		0.85				V
Peak Reverse Current @ $T_A = 25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_A = 100^\circ\text{C}$	I_{RM}					0.5				mA
						20				
Typical Thermal Resistance (Note 1)	$R_{\theta JL}$ $R_{\theta JA}$					30				$^\circ\text{C/W}$
						95				
Operating Temperature Range	T_j					-65 to +125				$^\circ\text{C}$
Storage Temperature Range	T_{STG}					-65 to +150				$^\circ\text{C}$

Note: 1. Mounted on P.C. Board with 5.0mm² copper pad area.

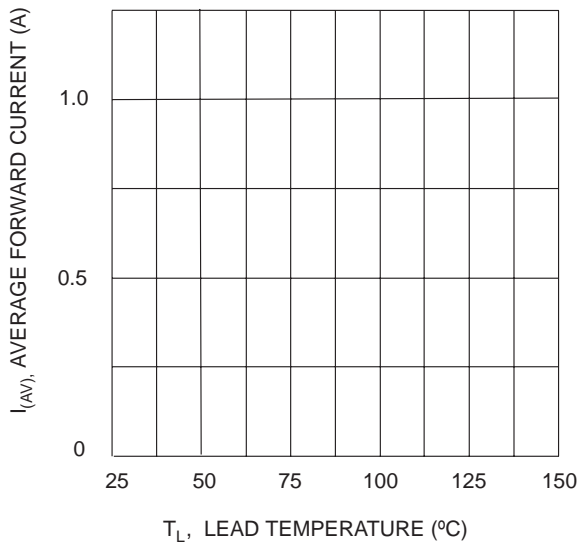


Fig. 1 Forward Current Derating Curve

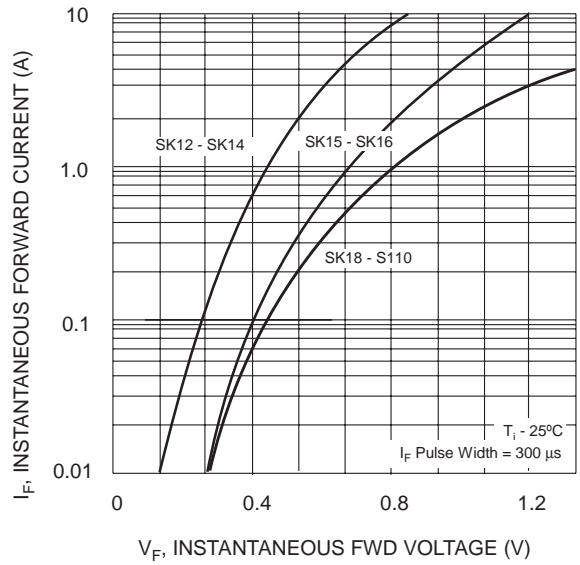


Fig. 2 Typ. Forward Characteristics

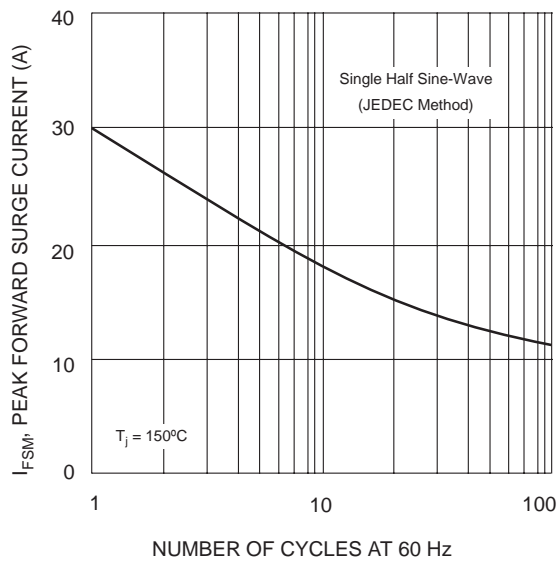


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

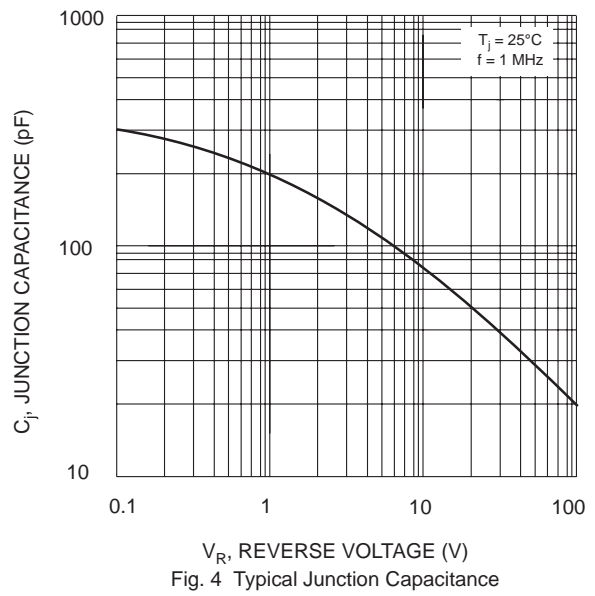


Fig. 4 Typical Junction Capacitance

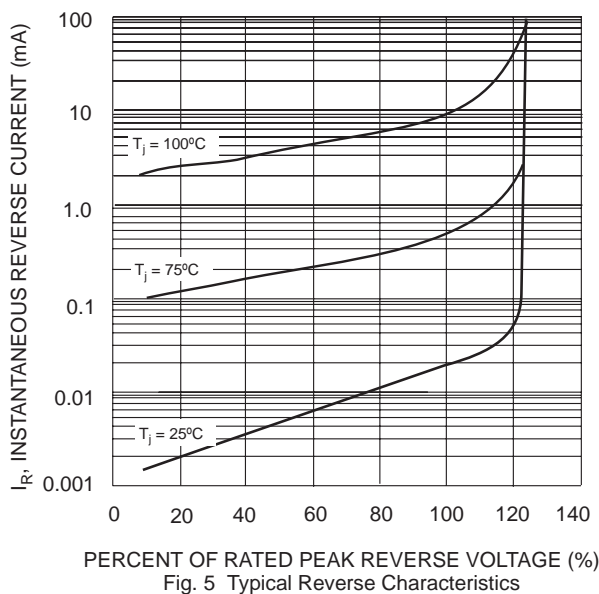


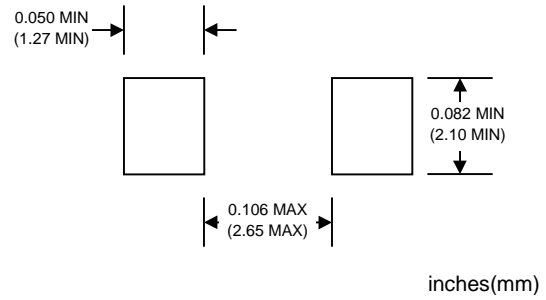
Fig. 5 Typical Reverse Characteristics

MARKING INFORMATION



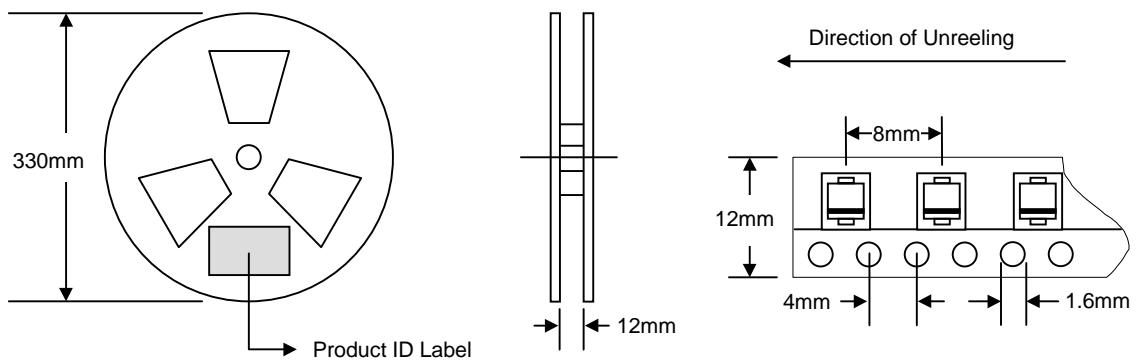
Cathode = Polarity Band
 WTE = Manufacturer's Logo
 SK1x = Device Number Except S110
 x = 2, 3, 4, 5, 6, 8 or 9

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
SK12-T3	SMB	3000/Tape & Reel
SK13-T3	SMB	3000/Tape & Reel
SK14-T3	SMB	3000/Tape & Reel
SK15-T3	SMB	3000/Tape & Reel
SK16-T3	SMB	3000/Tape & Reel
SK18-T3	SMB	3000/Tape & Reel
SK19-T3	SMB	3000/Tape & Reel
S110-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, SK12-T3-LF.**

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WARNING: DO NOT USE IN LIFE SUPPORT EQUIPMENT. WTE power semiconductor products are not authorized for use as critical components in life support devices or systems without the express written approval.

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