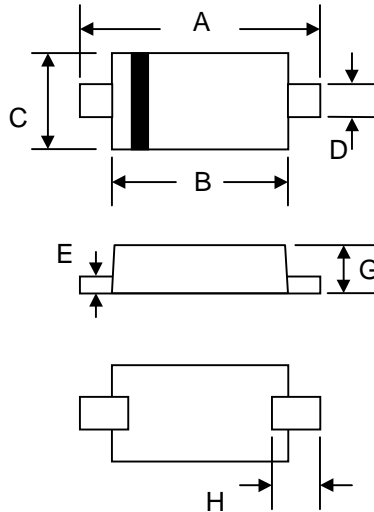


## SURFACE MOUNT SCHOTTKY BARRIER DIODE

### Features

- Low Turn-on Voltage
- Fast Switching
- PN Junction Guard Ring for Transient and ESD Protection
- Designed for Surface Mount Application
- Plastic Material – UL Recognition Flammability Classification 94V-O



SOD-323		
Dim	Min	Max
A	2.30	2.70
B	1.75	1.95
C	1.15	1.35
D	0.25	0.35
E	0.05	0.15
G	0.70	0.95
H	0.30	—
All Dimensions in mm		

### Mechanical Data

- Case: SOD-323, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.004 grams (approx.)
- Marking: SD103AWS S6  
SD103BWS S7  
SD103CWS S8
- **Lead Free: For RoHS / Lead Free Version, Add "-LF" Suffix to Part Number, See Page 4**

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

Characteristic	Symbol	SD103AWS	SD103BWS	SD103CWS	Unit
Peak Repetitive Reverse Voltage	$V_{RRM}$	40	30	20	V
Working Peak Reverse Voltage	$V_{RWM}$				
DC Blocking Voltage	$V_R$				
Forward Continuous Current (Note 1)	$I_F$	350			mA
Non-Repetitive Peak Forward Surge Current @ $t < 1.0\text{s}$	$I_{FSM}$	2.0			A
Power Dissipation (Note 1)	$P_d$	200			mW
Typical Thermal Resistance, Junction to Ambient Air (Note 1)	$R_{\theta JA}$	625			$^\circ\text{C/W}$
Operating and Storage Temperature Range	$T_j, T_{STG}$	-55 to +125			$^\circ\text{C}$

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

Characteristic	Symbol	All Types	Unit	Test Condition
Reverse Breakdown Voltage	$V_{(BR)R}$	40 30 20	V	@ $I_R = 10\mu\text{A}$ , $t_p < 300\mu\text{s}$
Forward Voltage Drop	$V_{FM}$	0.37 0.60	V	@ $I_F = 20\text{mA}$ @ $I_F = 200\text{mA}$
Peak Reverse Leakage Current	$I_{RM}$	5.0	$\mu\text{A}$	@ Rated DC Blocking Voltage
Typical Junction Capacitance	$C_j$	50	pF	$V_R = 0\text{V}$ , $f = 1.0\text{MHz}$
Typical Reverse Recovery Time	$t_{rr}$	10	nS	$I_F = I_R = 200\text{mA}$ $I_{RR} = 0.1 \times I_R$ , $R_L = 100\Omega$

Note: 1. Valid provided that terminals are kept at ambient temperature.

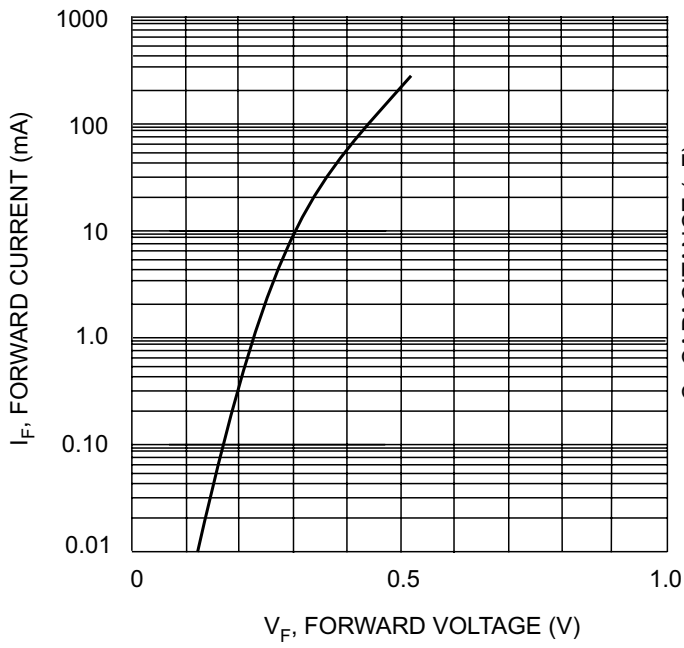


Fig. 1 Typical Forward Characteristics

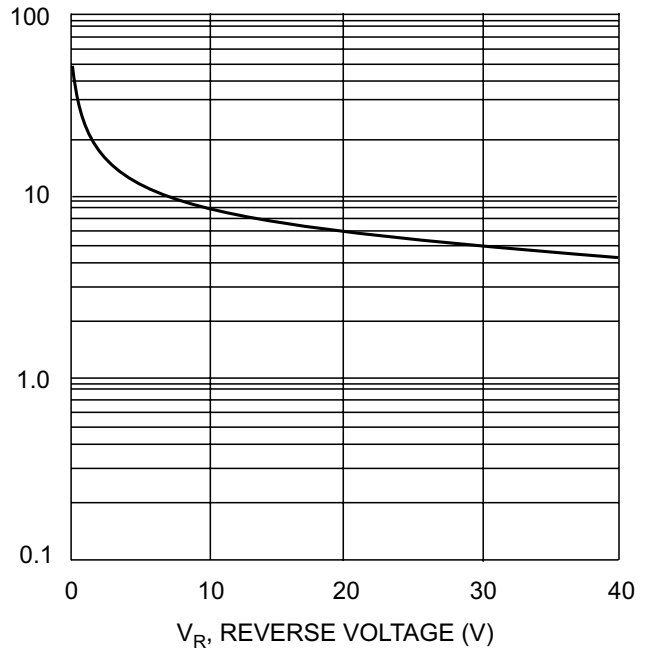


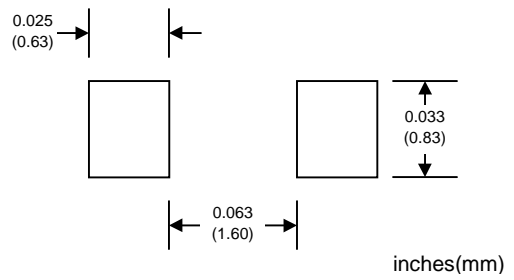
Fig. 2 Typ. Junction Capacitance vs Reverse Voltage

## MARKING INFORMATION



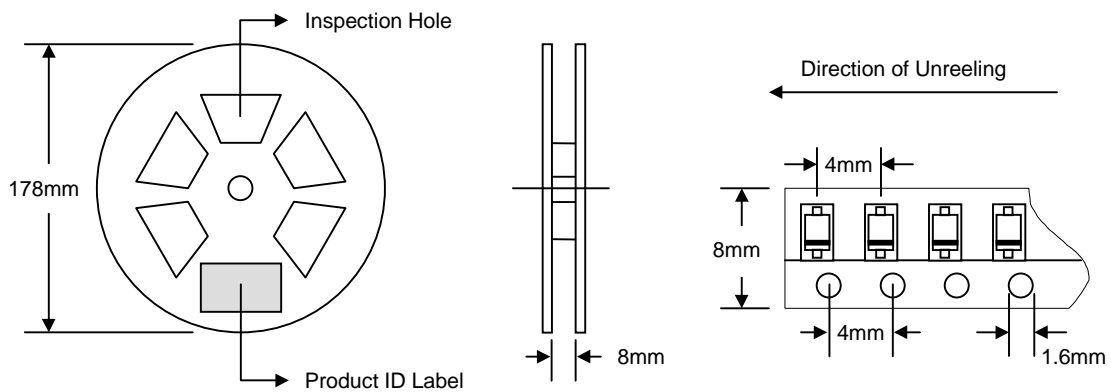
Cathode = Polarity Band  
 Sx = Device Code  
 x = 6 (SD103AWS)  
       7 (SD103BWS)  
       8 (SD103CWS)

## 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)
178	5,000	187 x 187 x 65	25,000	390 x 240 x 420	250,000	10.0

**Note:** 1. Anti-static plastic reel, white, water clear or blue color. Inspection hole might be varied in different alignment.  
 2. Components are packed in accordance with EIA standard 481-1 and 481-2.

## ORDERING INFORMATION

Product No.	Package Type	Shipping Quantity
SD103AWS-T1	SOD-323	5000/Tape & Reel
SD103BWS-T1	SOD-323	5000/Tape & Reel
SD103CWS-T1	SOD-323	5000/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, SD103AWS-T1-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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