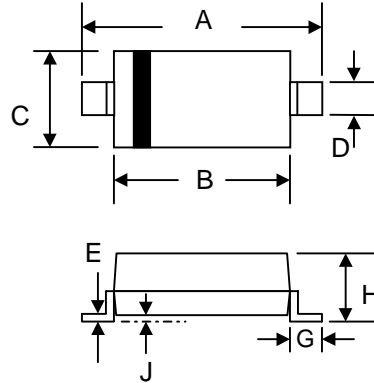


### Features

- 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-123		
Dim	Min	Max
A	3.6	3.9
B	2.5	2.8
C	1.4	1.8
D	0.5	0.7
E	—	0.2
G	0.4	—
H	0.95	1.35
J	—	0.12
All Dimensions in mm		

### Mechanical Data

- Case: SOD-123, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.01 grams (approx.)
- Marking: SD103AW S6  
SD103BW S7  
SD103CW S8
- **Lead Free: For RoHS / Lead Free Version, Add “-LF” Suffix to Part Number, See Page 4**

### Maximum Ratings @T<sub>A</sub>=25°C unless otherwise specified

Characteristic	Symbol	SD103AW	SD103BW	SD103CW	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	40	30	20	V
Forward Continuous Current (Note 1)	I <sub>F</sub>	350			mA
Non-Repetitive Peak Forward Surge Current @ t < 1.0s	I <sub>FSM</sub>	2.0			A
Power Dissipation	P <sub>d</sub>	410			mW
Typical Thermal Resistance, Junction to Ambient Air (Note 1)	R <sub>θJA</sub>	300			°C/W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-65 to +125			°C

### Electrical Characteristics @T<sub>A</sub>=25°C unless otherwise specified

Characteristic	Symbol	All Types	Unit	Test Condition
Forward Voltage Drop	V <sub>FM</sub>	0.37 0.60	V	@ I <sub>F</sub> = 20mA @ I <sub>F</sub> = 200mA
Peak Reverse Leakage Current	I <sub>RM</sub>	5.0	μA	@ Rated DC Blocking Voltage
Typical Junction Capacitance	C <sub>j</sub>	50	pF	V <sub>R</sub> = 0V, f = 1.0MHz
Typical Reverse Recovery Time	t <sub>rr</sub>	10	nS	I <sub>F</sub> = I <sub>R</sub> = 50mA to 200mA I <sub>RR</sub> = 0.1 x I <sub>R</sub> , R <sub>L</sub> = 100Ω

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

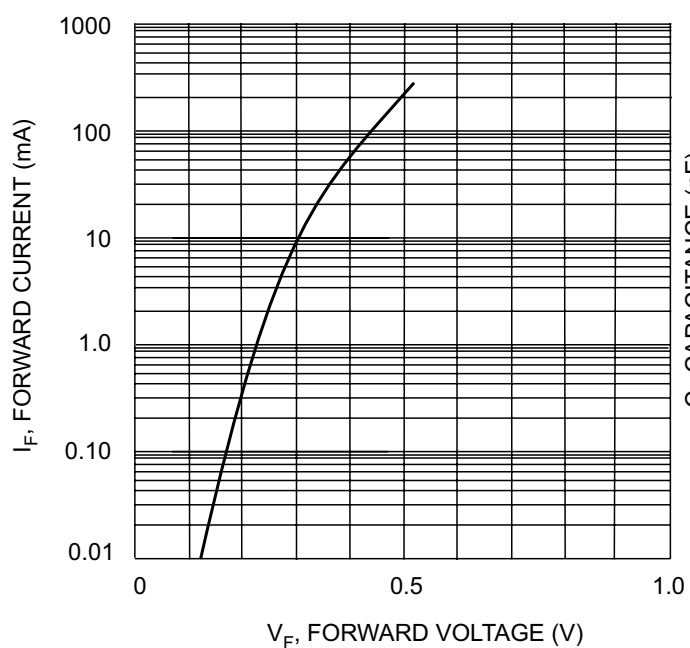


Fig. 1 Typical Forward Characteristics

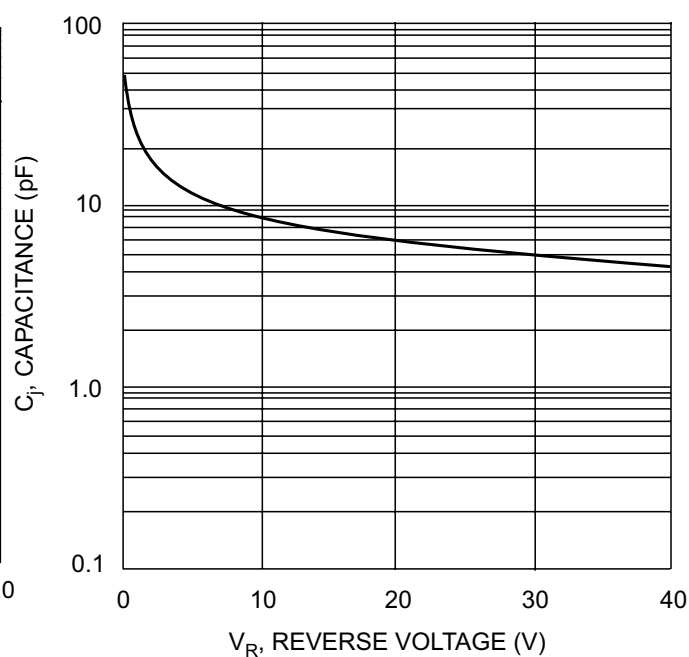


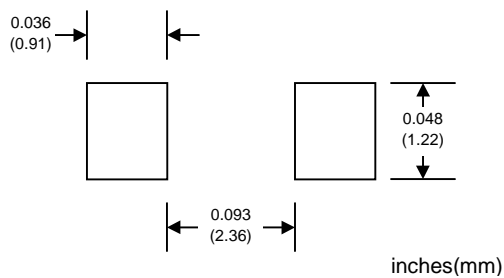
Fig. 2 Typ. Junction Capacitance vs Reverse Voltage

## MARKING INFORMATION



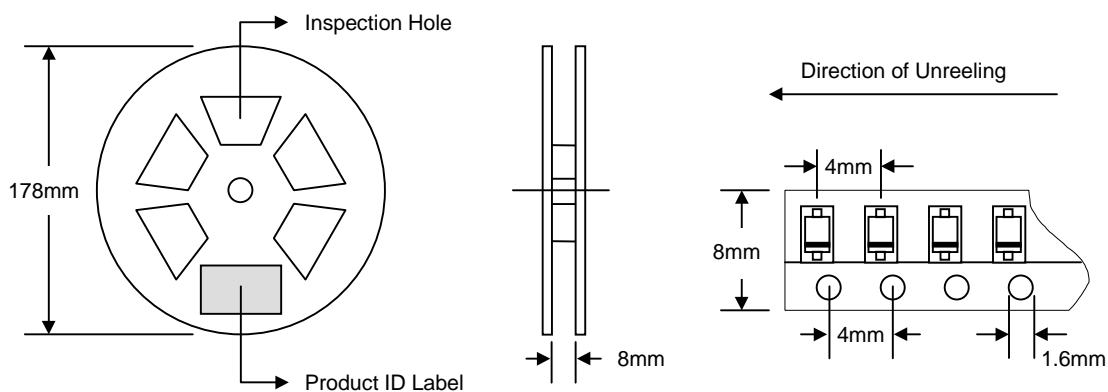
Cathode = Polarity Band  
 Sx = Device Code  
 x = 6 (SD103AW)  
       7 (SD103BW)  
       8 (SD103CW)

## 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	3,000	187 x 187 x 65	15,000	390 x 240 x 420	150,000	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
SD103AW-T1	SOD-123	3000/Tape & Reel
SD103BW-T1	SOD-123	3000/Tape & Reel
SD103CW-T1	SOD-123	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, SD103AW-T1-LF.**

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