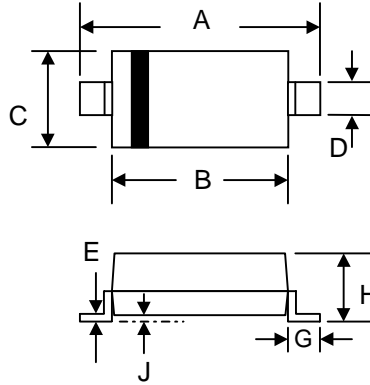


Features

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

Characteristic	Symbol	SD103AW	SD103BW	SD103CW	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	P_d	410			mW
Typical Thermal Resistance, Junction to Ambient Air (Note 1)	$R_{\theta JA}$	300			$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_j, T_{STG}	-65 to +125			$^\circ\text{C}$

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

Characteristic	Symbol	All Types	Unit	Test Condition
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	μA	@ 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	$I_F = I_R = 50\text{mA to } 200\text{mA}$ $I_{RR} = 0.1 \times I_R, R_L = 100\Omega$

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

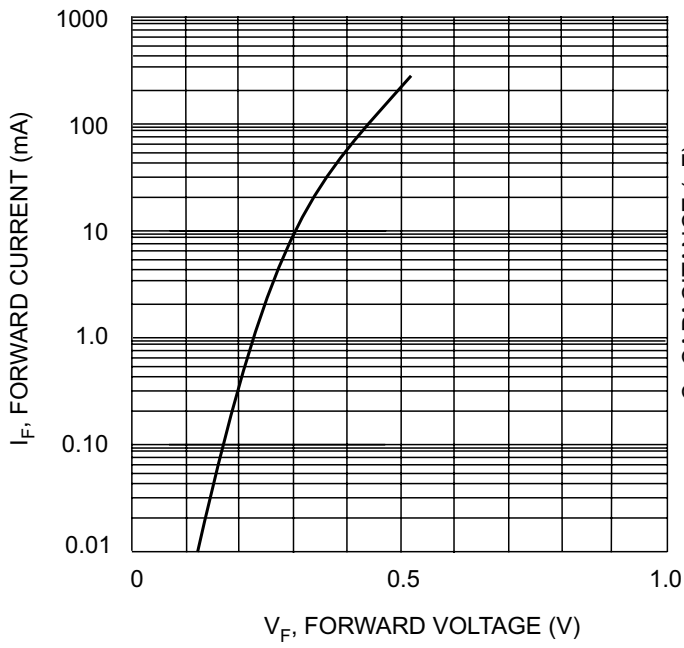


Fig. 1 Typical Forward Characteristics

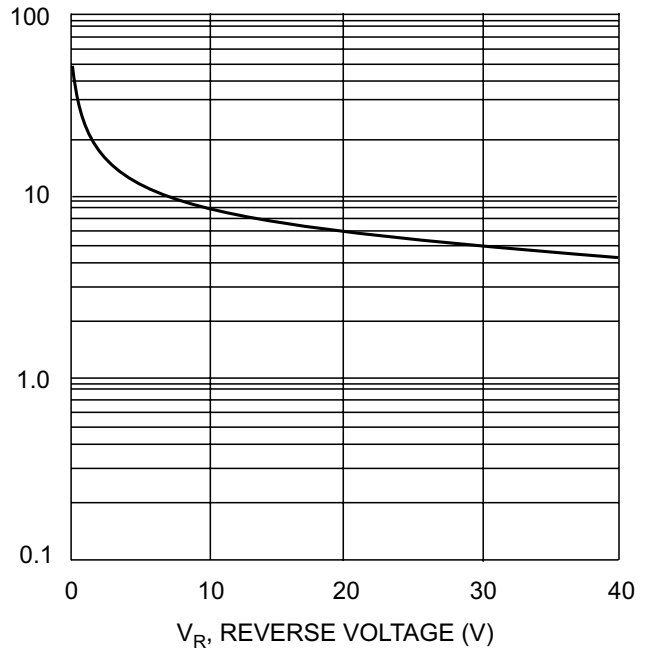


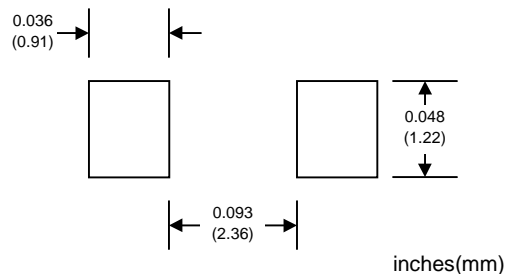
Fig. 2 Typ. Junction Capacitance vs Reverse Voltage

MARKING INFORMATION



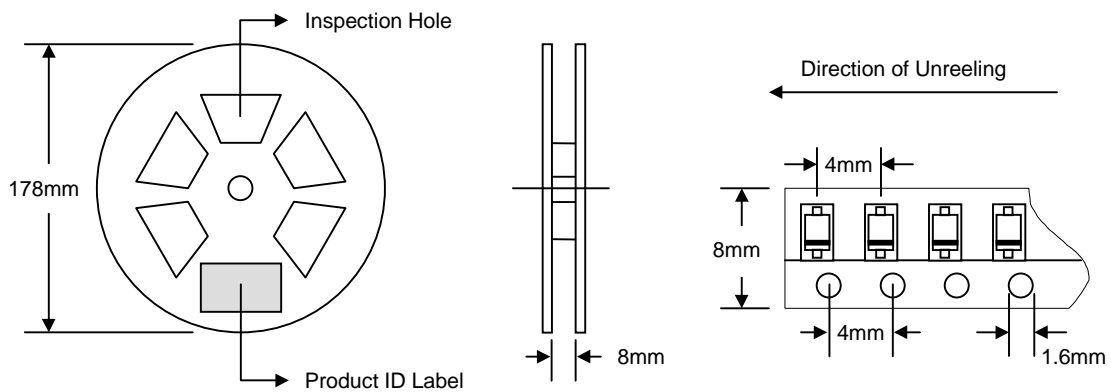
Cathode = Polarity Band
 Sx = Device Code
 x = 6 (SD103AW)
 7 (SD103BW)
 8 (SD103CW)

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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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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