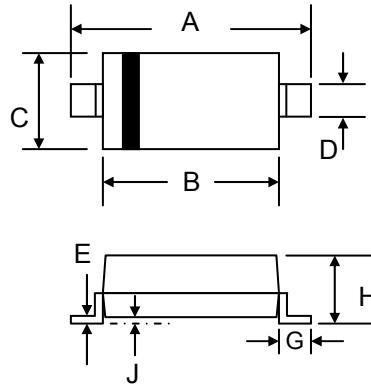


### Features

- Low Forward Voltage
- Fast Switching Speed
- PN Junction Guard Ring for Transient and ESD Protection
- For General Purpose Switching Applications
- Plastic Material – UL Recognition Flammability Classification 94V-0



SOD-323		
Dim	Min	Max
A	2.30	2.75
B	1.60	1.80
C	1.20	1.40
D	0.25	0.40
E	0.05	0.15
G	0.20	0.40
H	—	1.10
J	—	0.10

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: Device Code, See Page 3
- **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	SD101AWS	SD101BWS	SD101CWS	Unit
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>				
Working Peak Reverse Voltage	V <sub>RWM</sub>				
DC Blocking Voltage	V <sub>R</sub>				
Forward Continuous Current	I <sub>F</sub>		15		mA
Non-Repetitive Peak Forward Surge Current @ t < 1.0s @ t = 10μs	I <sub>FSM</sub>		50	2.0	mA A
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>		-55 to +125		°C

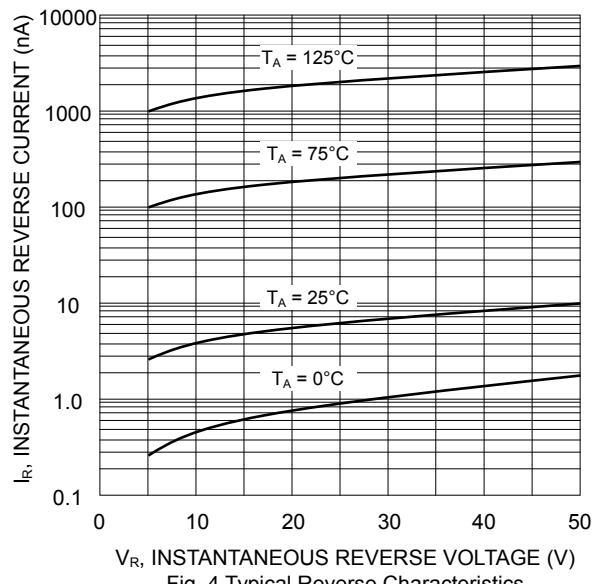
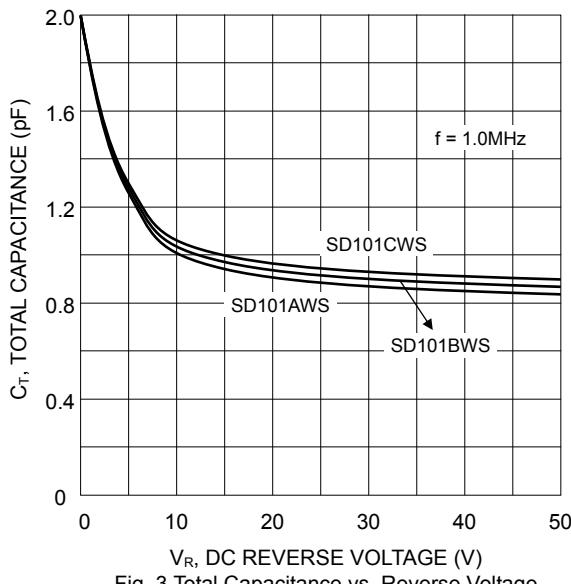
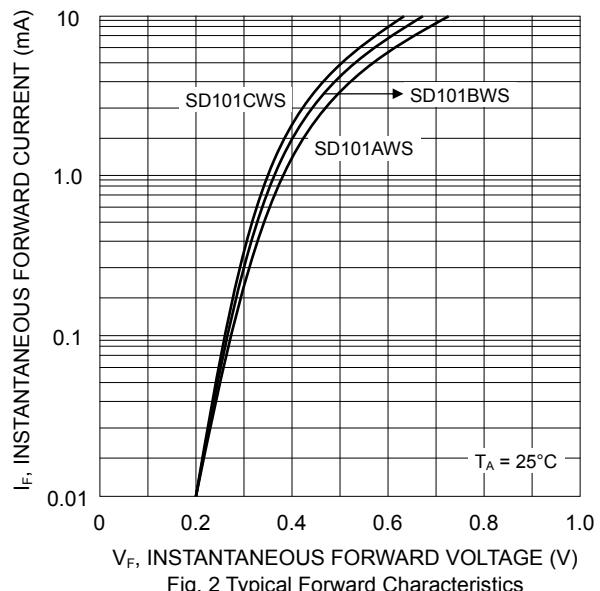
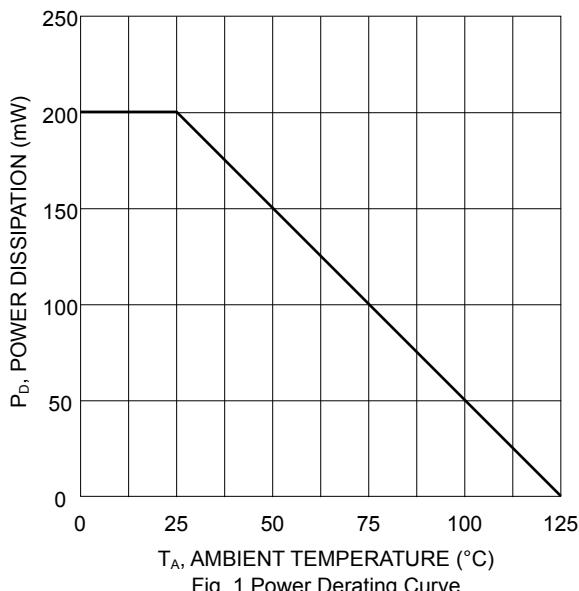
### Thermal Characteristics

Characteristic	Symbol	SD101AWS	SD101BWS	SD101CWS	Unit
Power Dissipation (Note 1)	P <sub>D</sub>		200		mW
Thermal Resistance, Junction to Ambient (Note 1)	R <sub>JA</sub>		625		°C/W

Note: 1. Mounted on FR-4 PC board with minimum recommended pad layout.

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

Characteristic	Symbol	SD101AWS	SD101BWS	SD101CWS	Unit
Min. Reverse Breakdown Voltage @ $I_R = 10\mu\text{A}$	$V_{(BR)}$	60	50	40	V
Max. Forward Voltage Drop @ $I_F = 1.0\text{mA}$ @ $I_F = 15\text{mA}$	$V_{FM}$	0.41 1.00	0.40 0.95	0.39 0.90	V
Peak Reverse Leakage Current @ 80% DC Blocking Voltage	$I_{RM}$		200		nA
Diode Capacitance ( $V_R = 0\text{V}$ , $f = 1.0\text{MHz}$ )	$C_D$	2.0	2.1	2.2	pF
Reverse Recovery Time ( $I_F = I_R = 5.0\text{mA}$ , $I_{RR} = 0.1 \times I_R$ , $R_L = 100\Omega$ )	$t_{rr}$		1.0		nS



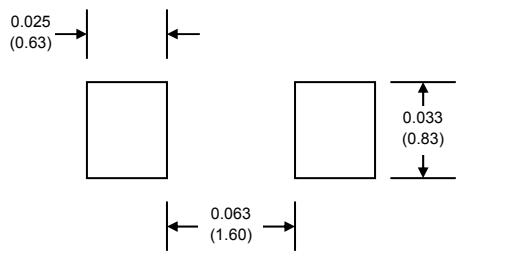
## MARKING INFORMATION



XX = Device Code, See Table Below

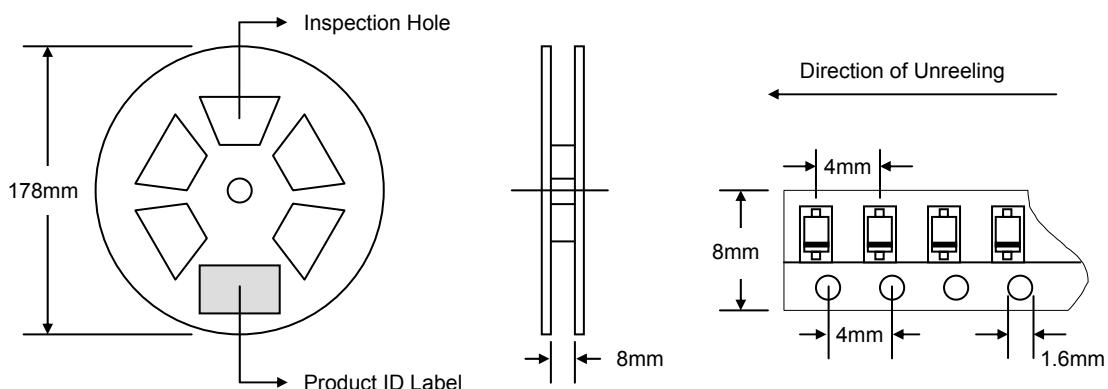
Mfg Site	SD101AWS	SD101BWS	SD101CWS
TW Plant	S2	S3	S4
CN Plant	S1	S2	S3

## RECOMMENDED FOOTPRINT



## PACKAGING INFORMATION

## TAPE &amp; 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	7.0

**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
SD101AWS-T1	SOD-323	3000/Tape & Reel
SD101BWS-T1	SOD-323	3000/Tape & Reel
SD101CWS-T1	SOD-323	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, SD101AWS-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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