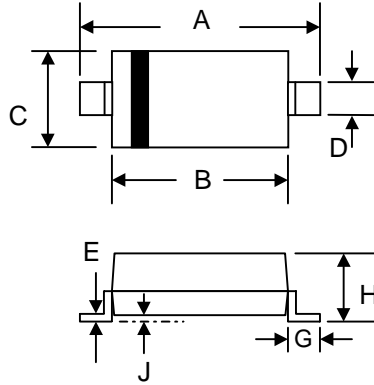


# SD103AW – SD103CW

## 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-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

### 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	$P_d$	400			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	$\mu\text{A}$	@ 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	$I_F = I_R = 50\text{mA}$ 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.

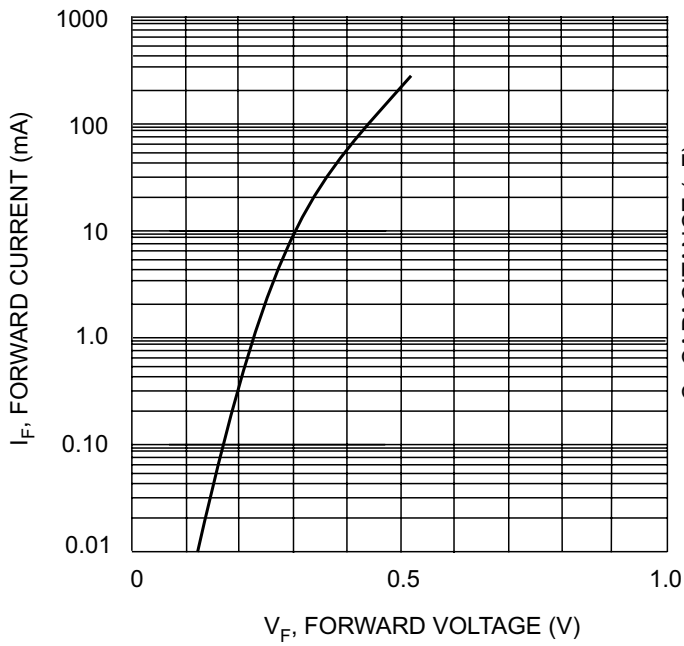


Fig. 1 Typical Forward Characteristics

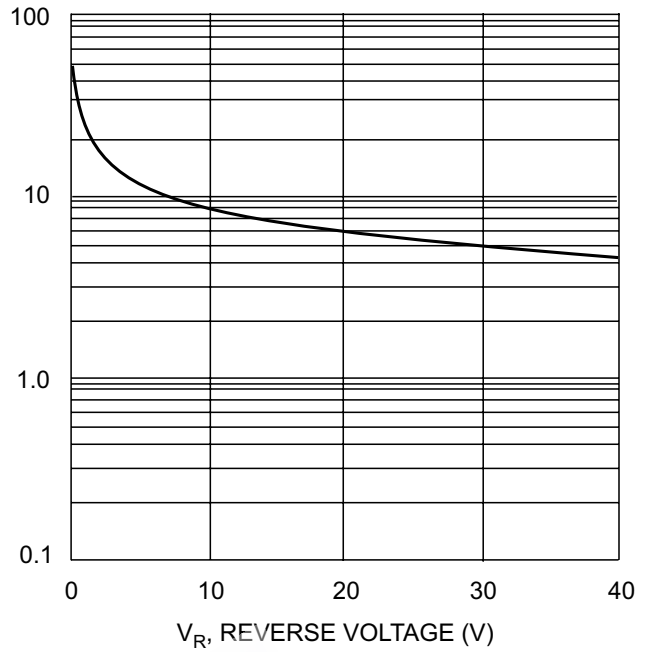


Fig. 2 Typ. Junction Capacitance vs Reverse Voltage

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## ORDERING INFORMATION

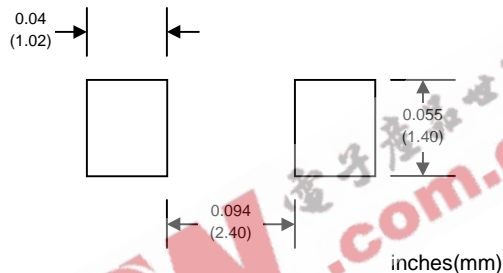
Product No.♦	Package Type	Shipping Quantity
<b>SD103AW-T1</b>	SOD-123	3000/Tape & Reel
SD103AW-T3	SOD-123	10000/Tape & Reel
<b>SD103BW-T1</b>	SOD-123	3000/Tape & Reel
SD103BW-T3	SOD-123	10000/Tape & Reel
<b>SD103CW-T1</b>	SOD-123	3000/Tape & Reel
SD103CW-T3	SOD-123	10000/Tape & Reel

Products listed in **bold** are WTE Preferred devices.

♦T1 suffix refers to a 7" reel. T3 suffix refers to a 13" reel.

Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.

## RECOMMENDED FOOTPRINT



Won-Top Electronics Co., Ltd (WTE) has checked all information carefully and believes it to be correct and accurate. However, WTE cannot assume any responsibility for inaccuracies. Furthermore, this information does not give the purchaser of semiconductor devices any license under patent rights to manufacturer. WTE reserves the right to change any or all information herein without further notice.

**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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*We power your everyday.*