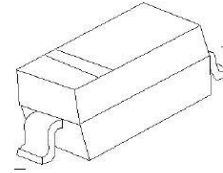




## SOD-123 Plastic-Encapsulate Diodes

### SD103AW-SD103CW SCHOTTKY BARRIER DIODE

SOD-123



#### FEATURES

- Low Forward Voltage Drop
- Guard Ring Construction for Transient Protection
- Negligible Reverse Recovery Time
- Low Capacitance

**MARKING:** SD103AW:S4  
SD103BW:S5  
SD103CW:S6

#### MAXIMUM RATINGS ( $T_a=25^\circ\text{C}$ unless otherwise noted )

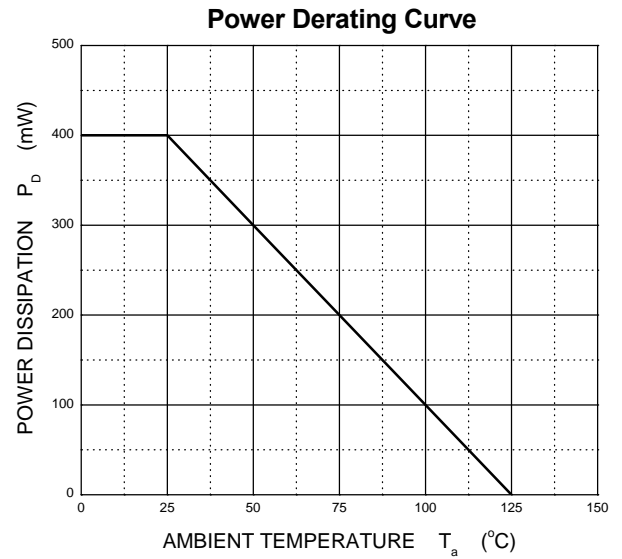
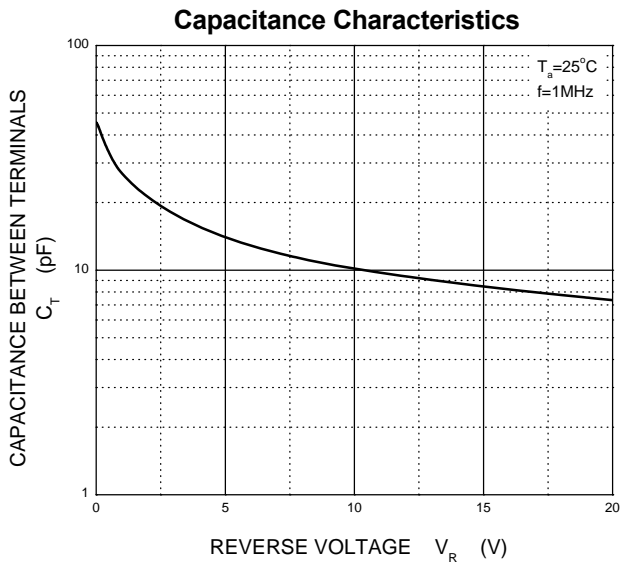
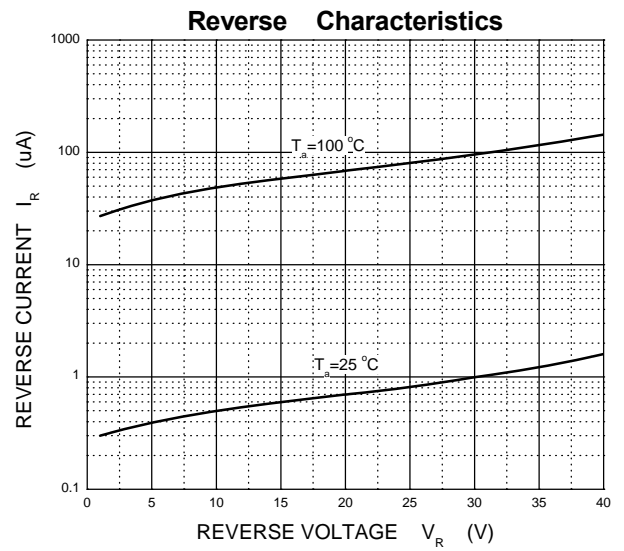
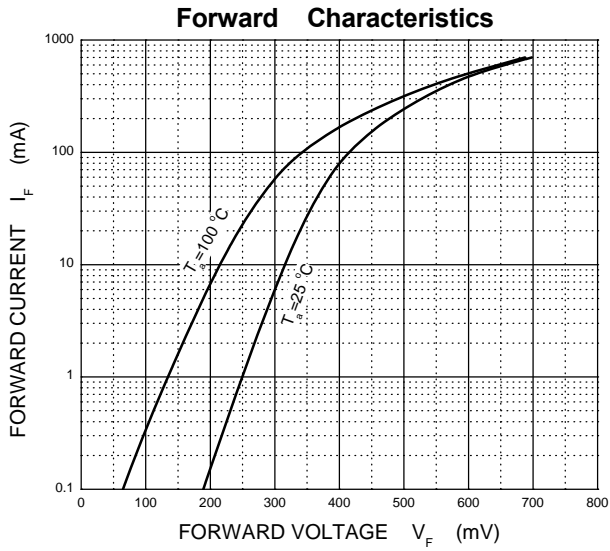
Symbol	Parameter	Value			Unit
		SD103AW	SD103BW	SD103CW	
$V_{RRM}$	Peak Repetitive Reverse Voltage	40	30	20	V
$V_{RWM}$	Working Peak Reverse Voltage				
$V_{R(RMS)}$	RMS Reverse Voltage	28	21	14	V
$I_{FM}$	Forward Continuous Current	350			mA
$I_{FSM}$	Non-repetitive Peak Forward Surge Current @ $t= 8.3\text{ms}$	2			A
$P_D$	Power Dissipation	400			mW
$R_{\theta JA}$	Thermal Resistance from Junction to Ambient	250			$^\circ\text{C}/\text{W}$
$T_j$	Junction Temperature	125			$^\circ\text{C}$
$T_{stg}$	Storage Temperature	-55~+150			$^\circ\text{C}$

#### ELECTRICAL CHARACTERISTICS( $T_a=25^\circ\text{C}$ unless otherwise specified)

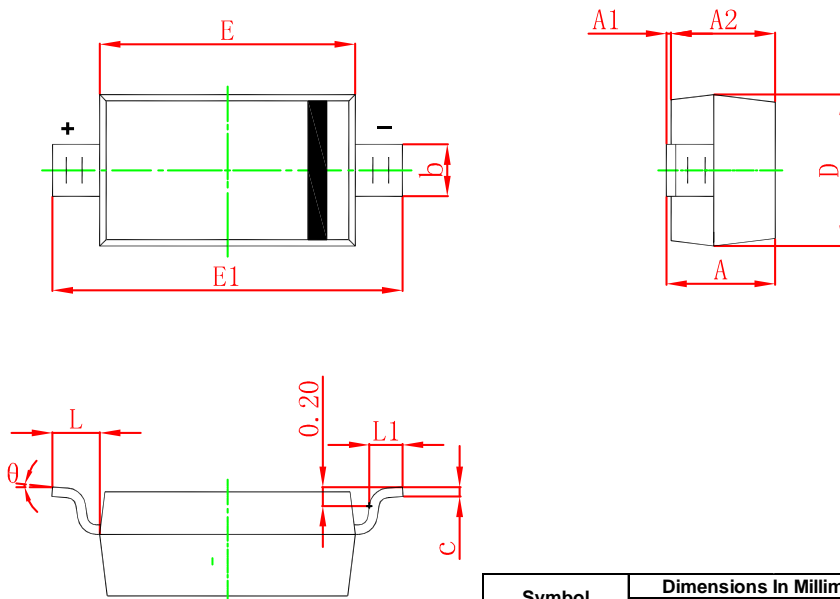
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Reverse voltage	$V_{(BR)}$	$I_R=100\mu\text{A}$ SD103AW	40			V
		SD103BW	30			
		SD103CW	20			
Reverse current	$I_R$	$V_R=30\text{V}$ SD103AW			5	$\mu\text{A}$
		$V_R=20\text{V}$ SD103BW				
		$V_R=10\text{V}$ SD103CW				
Forward voltage	$V_F$	$I_F=20\text{mA}$			0.37	V
		$I_F=200\text{mA}$			0.6	
Total capacitance	$C_{tot}$	$V_R=0\text{V}, f=1\text{MHz}$		50		pF
Reverse recovery time	$t_{rr}$	$I_F= I_R=200\text{mA}, I_{rr}=0.1 \times I_R, R_L=100\Omega$		10		ns

# Typical Characteristics

# SD103AW

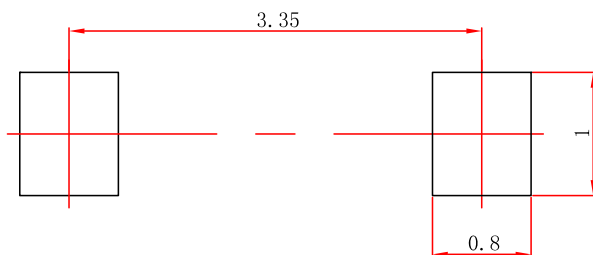


## SOD-123 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.050	1.250	0.041	0.049
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.041	0.045
b	0.450	0.650	0.018	0.026
c	0.080	0.150	0.003	0.006
D	1.500	1.700	0.059	0.067
E	2.600	2.800	0.102	0.110
E1	3.550	3.850	0.140	0.152
L	0.500 REF		0.020 REF	
L1	0.250	0.450	0.010	0.018
θ	0°	8°	0°	8°

## SOD-123 Suggested Pad Layout



### Note:

1. Controlling dimension: in millimeters.
2. General tolerance:  $\pm 0.05$ mm.
3. The pad layout is for reference purposes only.

## NOTICE

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