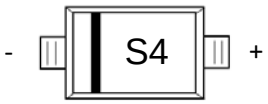
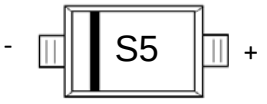
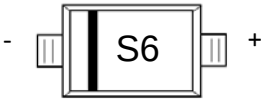
SD103AW-SD103CW

SCHOTTKY BARRIER DIODE

Features

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

SOD-123 top view

SD103AW	SD103BW	SD103CW
		
Marking:S4	Marking:S5	Marking:S6
		

Pb-Free RoHS Halogen-Free

MAXIMUM RATINGS (Ta=25℃ unless otherwise noted)

Symbol	Parameter	SD103AW	SD103BW	SD103CW	Unit
V_{RRM}	Maximum recurrent peak 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= 8.3ms	2			A
P_d	Power Dissipation	400			mW
$R_{\Theta JA}$	Thermal resistance junction to ambient	250			°C/W
T_J	Operating Junction Temperature Range	-40~+125			°C
T_{stg}	Operation Junction and Storage Temperature Range	-55~+150			°C

ELECTRICAL CHARACTERISTICS(Ta=25℃ unless otherwise specified)

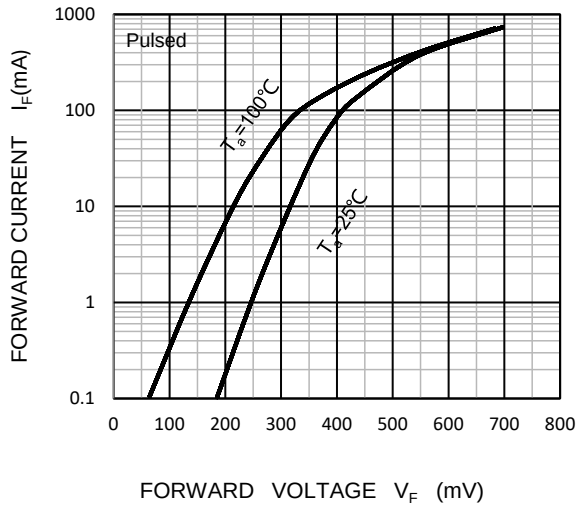
Symbol	Parameter		Condition	Min	Typ	Max	Unit
$V_{(BR)}$	Reverse voltage	SD103AW	I_R=100uA	40	--	--	V
	Reverse voltage	SD103BW	I_R=100μA	30	--	--	
	Reverse voltage	SD103CW	I_R=100μA	20	--	--	
V_F	Forward voltage		I_F=20mA	--	--	0.37	V
			I_F=200mA	--	--	0.60	
I_R	Reverse current	SD103AW	V_R=30V			5	μA
	Reverse current	SD103BW	V_R=20V				
	Reverse current	SD103CW	V_R=10V				
C_{tot}	Total capacitance		V_R=0V,f=1.0MHz	--	50	--	pF
t_{rr}	Reverse recovery time		I_F= I_R =200mA, I_{rr}=0.1XI_R,R_L=100Ω	--	10	--	ns

Ordering Information (Example)

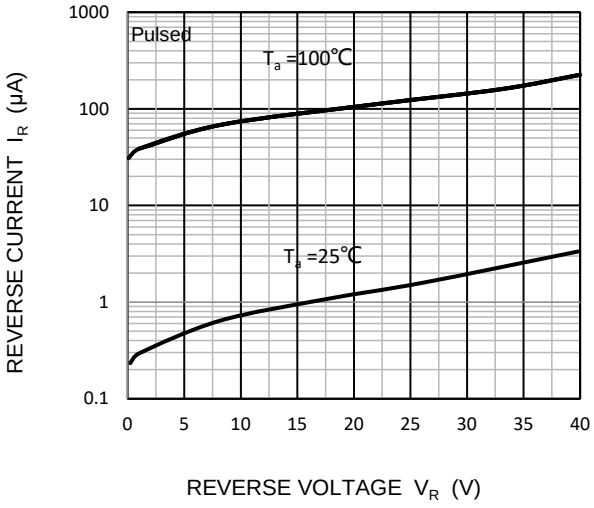
Type	Package	Marking	Minimum	Inner Box	Outer	Delivery
SD103AW	SOD-123	S4	3,000	45,000	180,000	7"reel
SD103BW	SOT-123	S5	3,000	45,000	180,000	7"reel
SD103CW	SOD-123	S6	3,000	45,000	180,000	7"reel

Typical Operating Characteristics

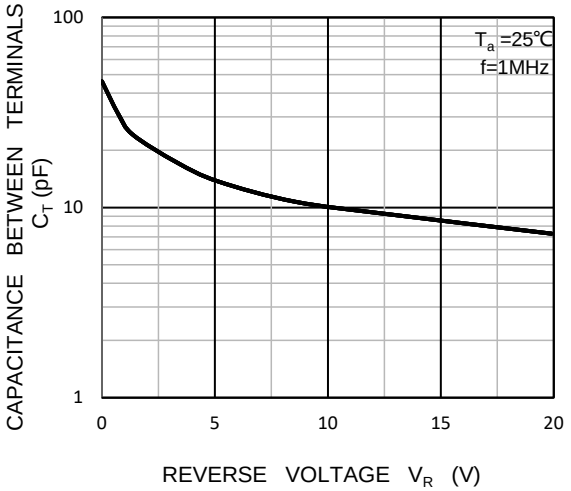
Forward Characteristics



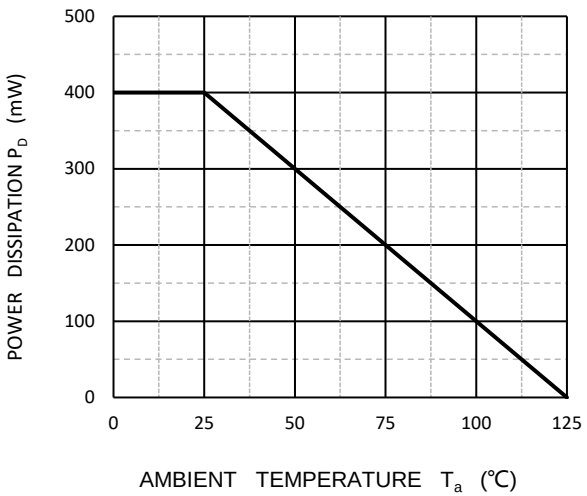
Reverse Characteristics



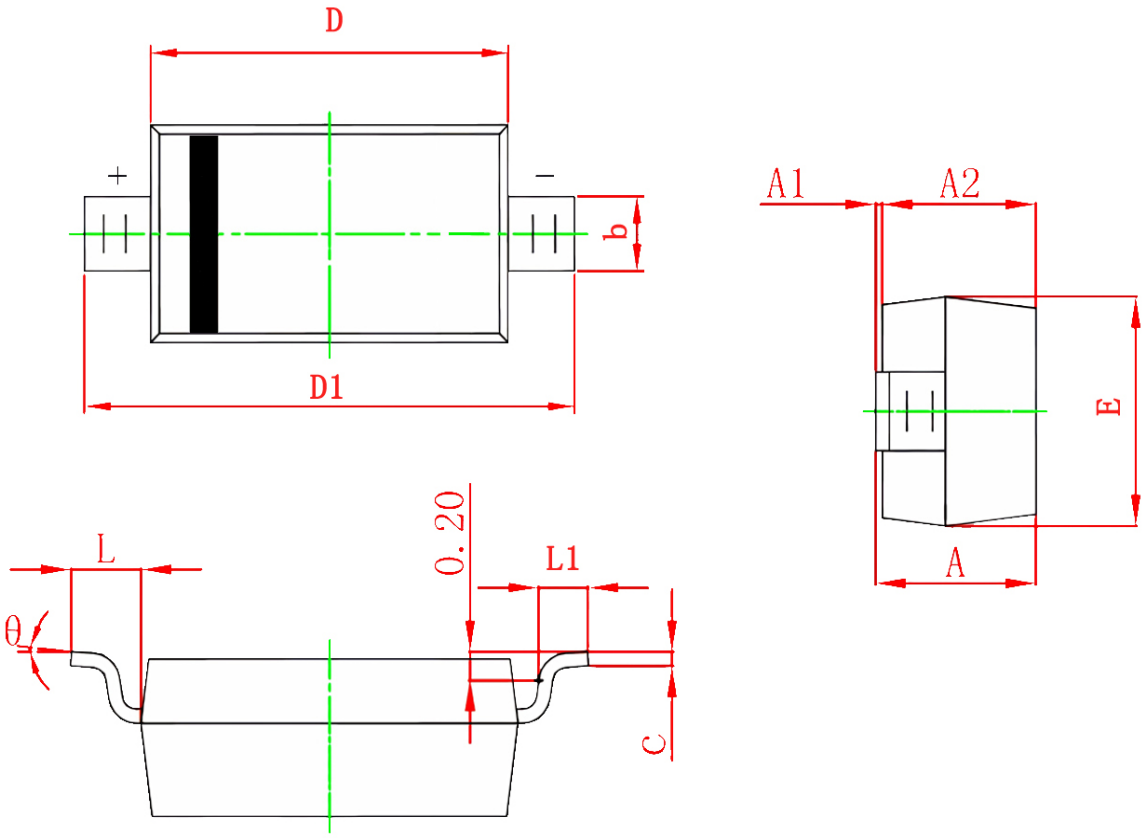
Capacitance Characteristics



Power Derating Curve



SOD-123 Package information



Symbol	Dimensions in Millimeters(mm)		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	2.600	2.800	0.102	0.110
D1	3.550	3.850	0.140	0.152
E	1.500	1.700	0.059	0.067
L	0.500 REF		0.020 REF	
L1	0.250	0.450	0.010	0.018
θ	0°	8°	0°	8°