

**SD103AW-SD103CW
SURFACE MOUNT SCHOTTKY BARRIER DIODE**

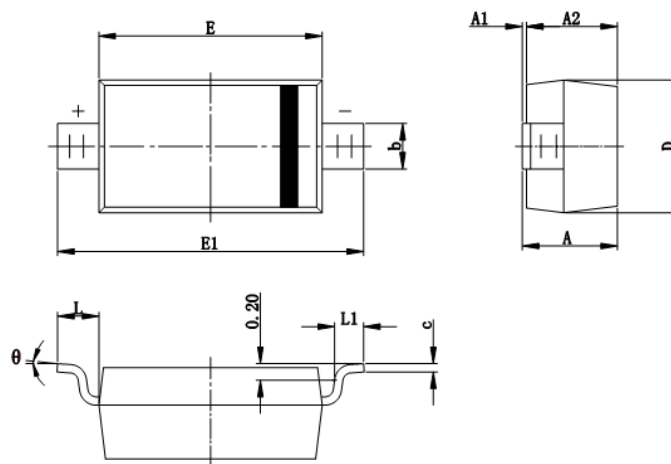
Features:

- Low Turn-on Voltage
- Fast Switching
- PN Junction Guard Ring Transient and ESD Protection
- Designed for Surface Mount Application
- Plastic Material —UL Recognition Flammability Classification 94V-0
- Green Products in Compliance with the ROHS Directive
- This is a Pb – Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

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)

Mechanical Dimensions: In mm / Inches



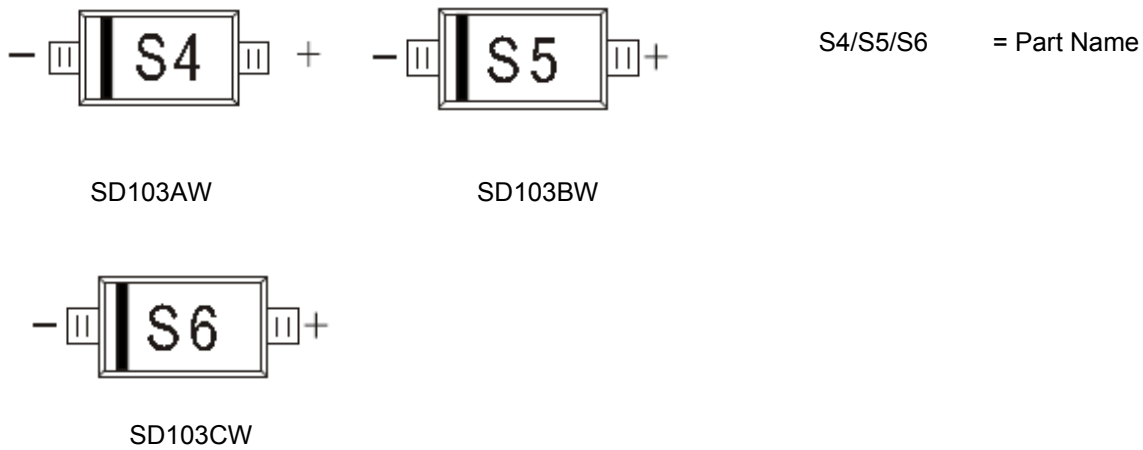
Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.050	1.250	0.041	0.049
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.041	0.045
b	0.450	0.650	0.018	0.026
c	0.080	0.150	0.003	0.006
D	1.500	1.700	0.059	0.067
E	2.600	2.800	0.102	0.110
E1	3.550	3.850	0.140	0.152
L	0.500 REF		0.020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

SOD-123(CJ)

- China - Germany - Korea - Singapore - United States •
- <http://www.smc-diodes.com> - sales@smc-diodes.com •



Marking Diagram:



Cautions: Molding resin
Epoxy resin UL:94V-0

Ordering Information:

Device	Package	Shipping
SD103AW-SD103CW	SOD-123(Pb-Free)	3000pcs / reel

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification.

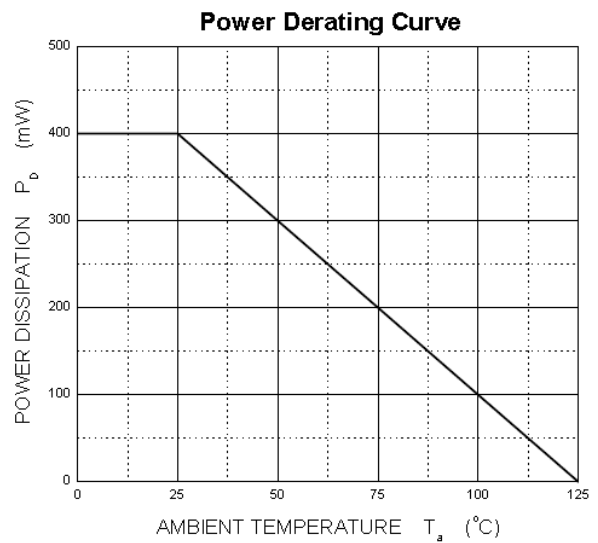
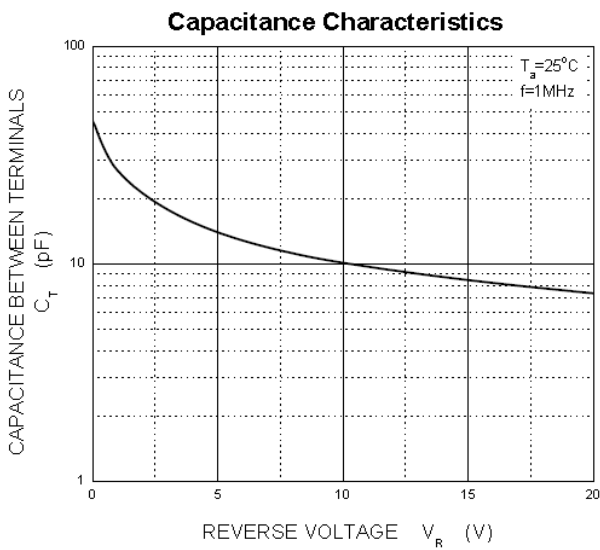
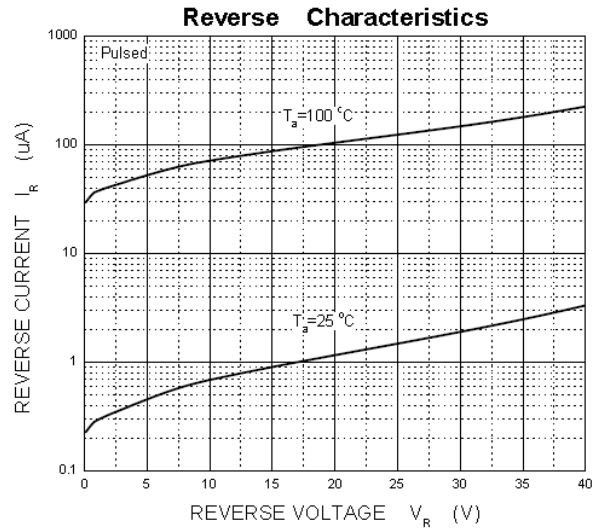
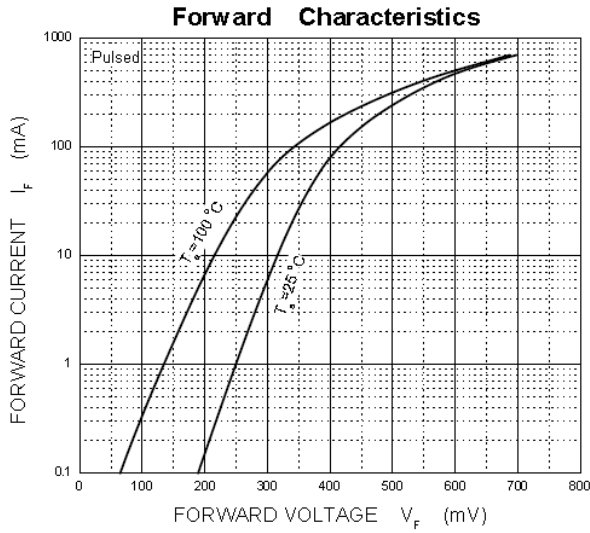


Maximum Ratings and Electrical Characteristics @ $T_A=25^{\circ}\text{C}$ unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

Characteristic	Symbol	SD103AW	SD103BW	SD103CW	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	40	30	20	V
RMS Reverse Voltage	$V_{R(RMS)}$	28	21	14	V
Forward Continuous Current	I_{FM}	0.35			A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	2			A
Power Dissipation	P_d	400			mW
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$	250			$^{\circ}\text{C}/\text{W}$
Junction Temperature Range	T_J	125			$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150			$^{\circ}\text{C}$

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Breakdown Voltage	$V_{(BR)}$	40	-	-	V	$I_R=100\mu\text{A}$ SD103AW
		30	-	-	V	$I_R=100\mu\text{A}$ SD103BW
		20	-	-	V	$I_R=100\mu\text{A}$ SD103CW
Forward Voltage	V_F	-	-	0.37	V	$I_F=20\text{mA}$
		-	-	0.60	V	$I_F=200\text{mA}$
Reverse Leakage Current	I_R	-	-	5	μA	$V_R=30\text{V}$ SD103AW
		-	-			$V_R=20\text{V}$ SD103BW
		-	-			$V_R=10\text{V}$ SD103CW
Total Capacitance	C_{tot}	-	-	50	pF	$V_R=0\text{V}, f=1.0\text{MHz}$
Reverse recovery time	t_{rr}	-	10	-	ns	$I_F=I_R=200\text{mA}$, $I_{rr}=0.1 \times I_R$, $R_L=100\Omega$





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