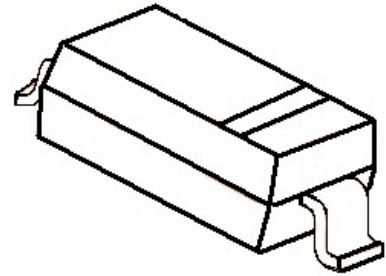


»Features

- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability
- Epitaxial construction



**SOD-123**

»General Description

- Case: molded plastic
- Polarity: Color band denotes cathode
- Package: SOD-123 Plastic Package

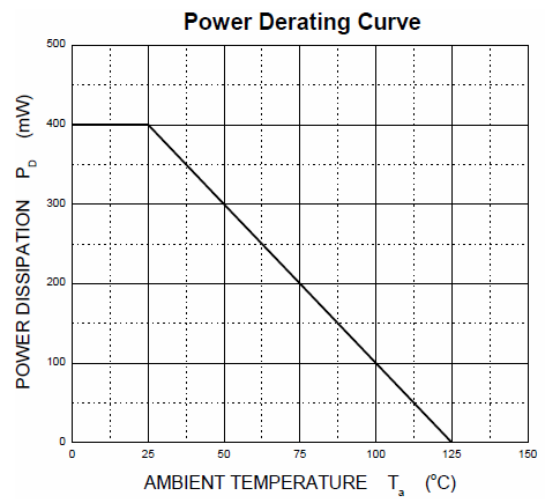
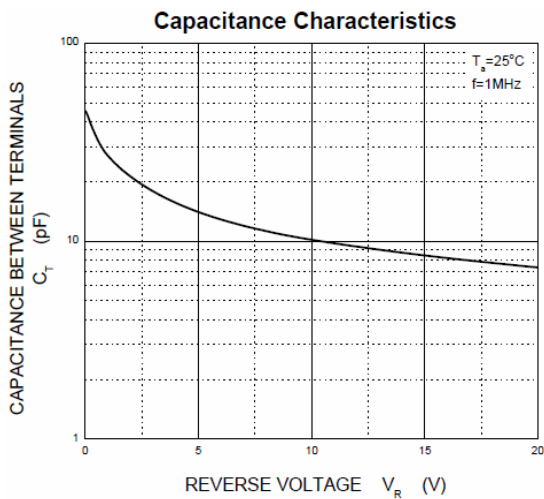
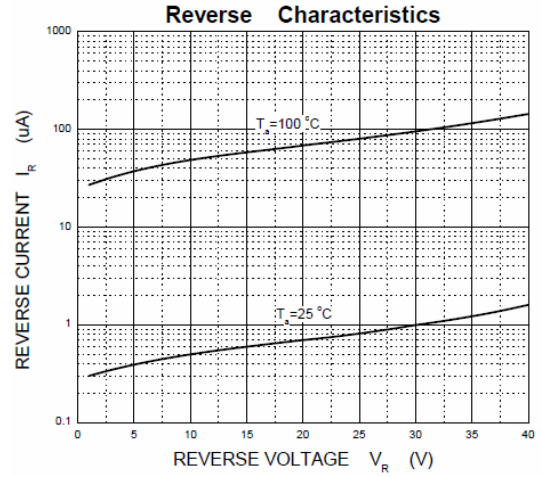
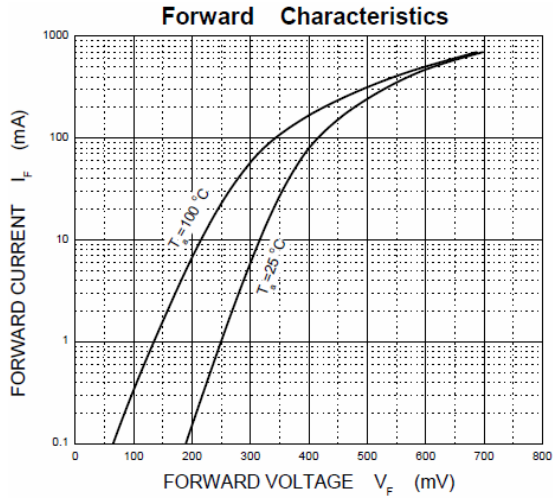
» Maximum Ratings @ $T_A=25^{\circ}\text{C}$  unless otherwise noted

Parameters	Symbol	SD103AW	SD103BW	SD103CW	Unit
Maximum repetitive peak reverse voltage	VRRM	40	30	20	V
Maximum RMS voltage	VRMS	28	21	14	V
Maximum DC blocking voltage	VDC	40	30	20	V
Maximum average forward rectified current	IFM	350			mA
Peak forward surge current 8.3 ms single half sine-wave	IFSM	2			A
Power Dissipation	PD	400			mW
typical thermal resistance	R $\theta$ JA	250			$^{\circ}\text{C}/\text{W}$
Operating junction temperature	T <sub>j</sub>	125			$^{\circ}\text{C}$
Storage temperature range	TSTG	-50-+150			$^{\circ}\text{C}$

» **Electrical Characteristics** @ $T_A=25^{\circ}\text{C}$  unless otherwise noted

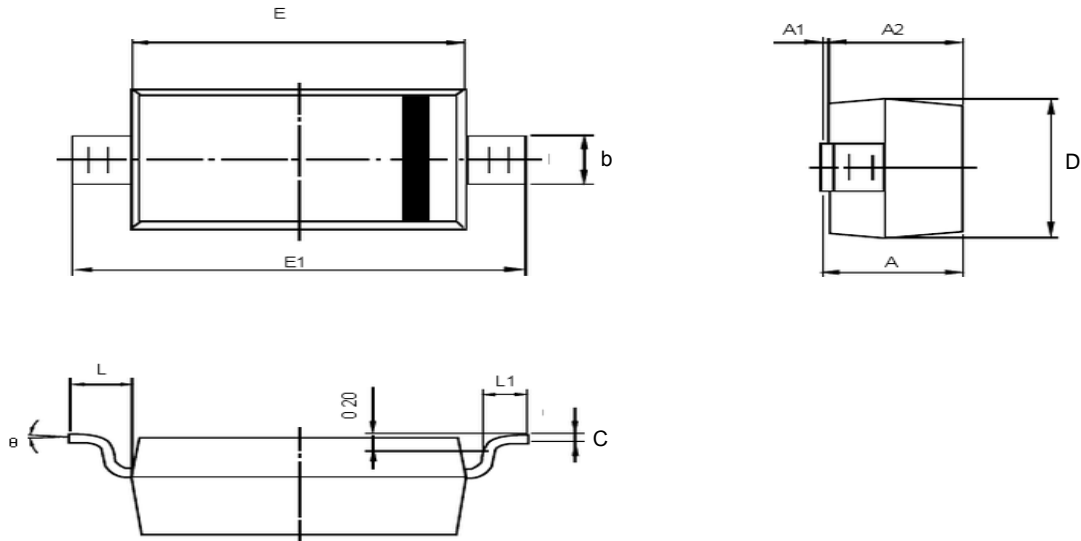
Parameters	Symbol	Test conditions	SD103AW	SD103BW	SD103CW	Unit
Maximum forward voltage	$V_F$	$I_F = 20\text{mA}$ $I_F = 200\text{mA}$	0.370 0.600			V
Maximum reverse breakdown voltage	$V_R$	$I_R = 100\mu\text{A}$	40	30	20	V
Maximum reverse current	$I_R$	$V_R=30\text{V}$ SD103AW $V_R=20\text{V}$ SD103BW $V_R=10\text{V}$ SD103CW	5.0			$\mu\text{A}$
Type junction capacitance	$C_j$	$V_R = 0\text{V}$ , $f = 1\text{MHz}$	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 Performance Characteristics (T<sub>J</sub> = 25 °C, unless otherwise noted)



»Package Information

SOD-123



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	0.500REF		0.020REF	
L1	0.250	0.450	0.010	0.018
θ	0°	8°	0°	8°

»Ordering information

Order code	Package	Marking	Base qty	Delivery mode
SD103AW	SOD-123	S4	3K	Tape and reel
SD103BW	SOD-123	S5	3K	Tape and reel
SD103CW	SOD-123	S6	3K	Tape and reel