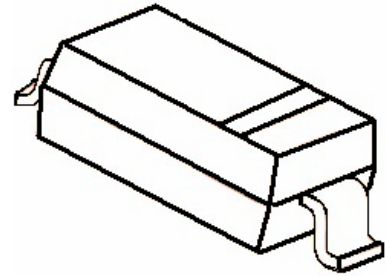


### »Features

- 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

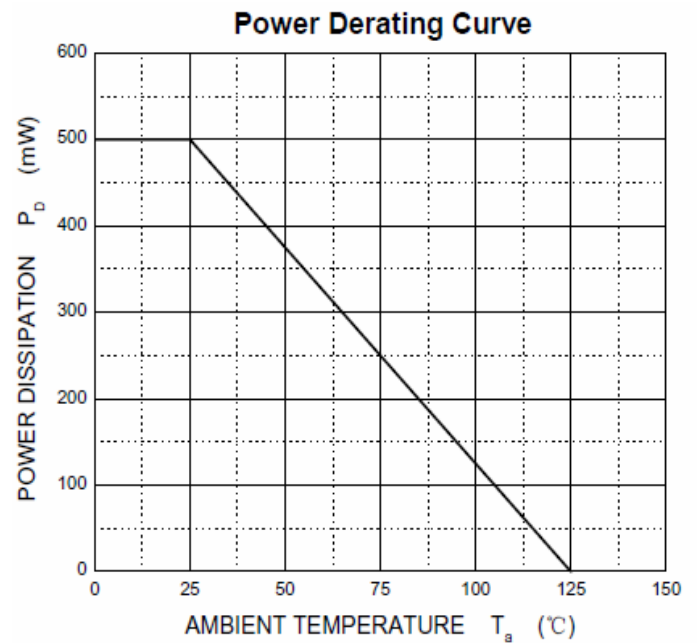
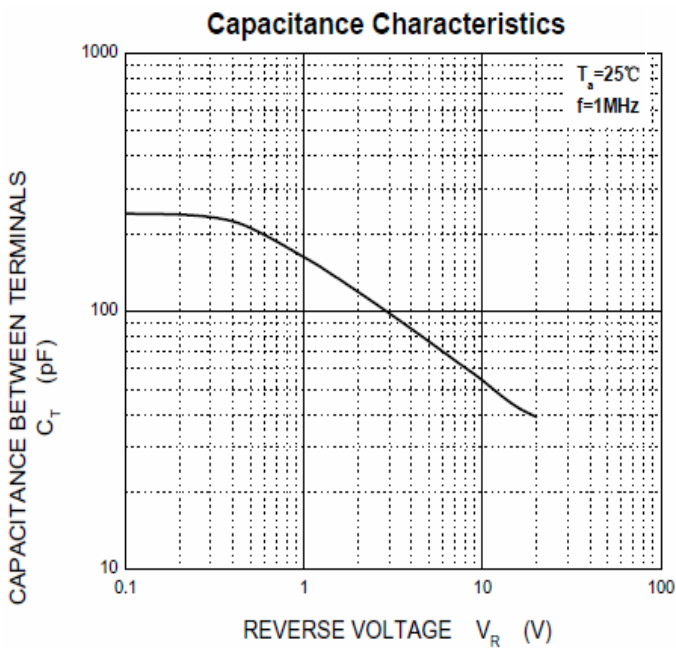
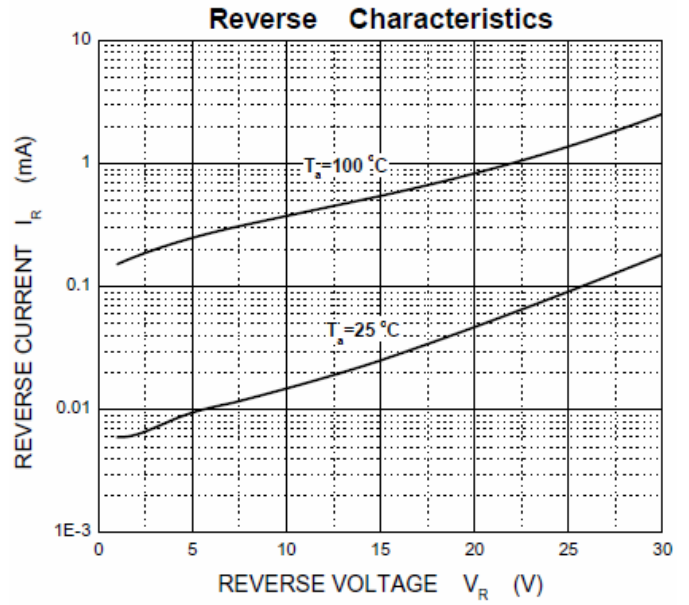
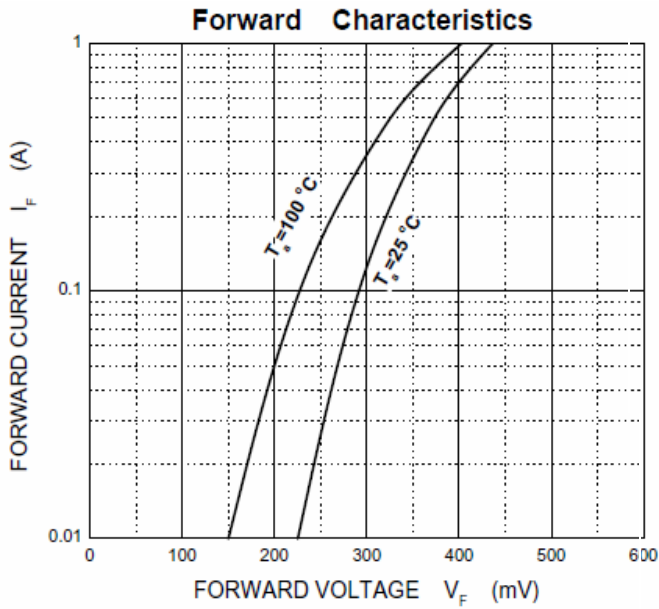
### » Maximum Ratings @ $T_A=25^{\circ}\text{C}$ unless otherwise noted

Parameters	Symbol	B0520W	B0530W	B0540W	Unit
Maximum repetitive peak reverse voltage	VRRM	20	30	40	V
Maximum RMS voltage	VRMS	14	21	28	V
Maximum DC blocking voltage	VDC	20	30	40	V
Maximum average forward rectified current	IFM	0.5			A
Peak forward surge current 8.3 ms single half sine-wave	IFSM	5.5			A
Typical thermal resistance	R $\theta$ JA	200			$^{\circ}\text{C}/\text{W}$
Power Dissipation	PD	500			mW
Storage temperature range	TSTG	-50-+150			$^{\circ}\text{C}$
Voltage rate of change	Dv/dt	1000			V/ $\mu\text{s}$

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

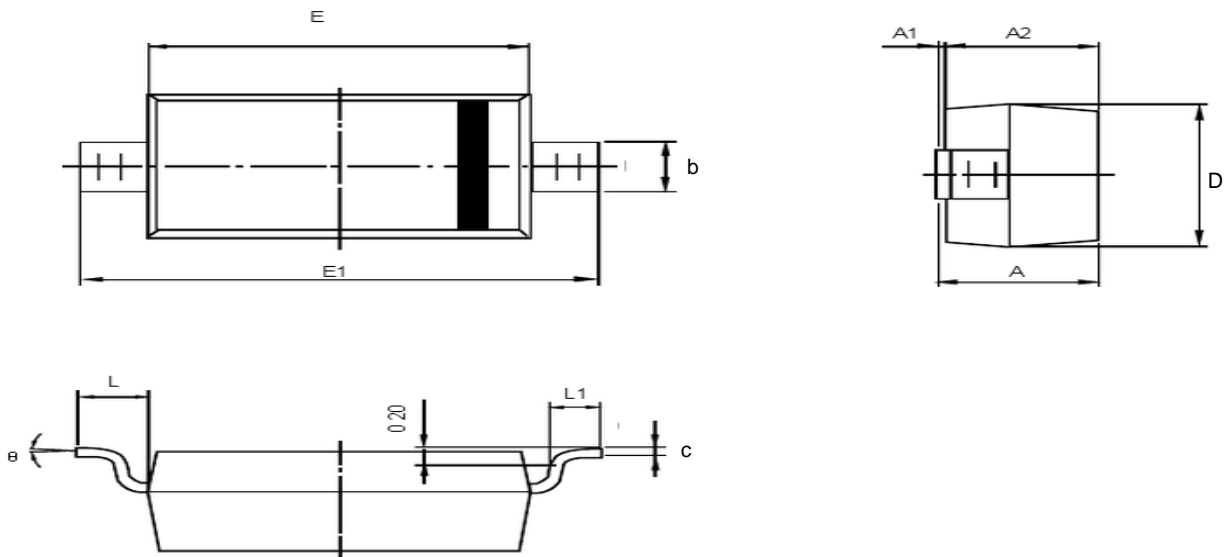
Parameters	Symbol	Test conditions	B0520W	B0530W	B0540W	Unit
Maximum forward voltage	V <sub>F</sub>	IF = 0.1A	0.330	0.375	---	V
		IF = 0.5A	0.385	0.430	0.510	
		IF = 1.0A	---	---	0.620	
Maximum reverse breakdown voltage	V <sub>R</sub>	IR=250uA	20	---	---	V
		IR=200uA	---	30	---	
		IR=20.0uA	---	---	40	
Maximum reverse current	I <sub>R</sub>	VR=10V	75	---	---	uA
		VR=15V	---	20	---	
		VR=20V	250	---	10	
		VR=30V	---	130	---	
		VR=40V	---	---	20	
Capacitance between terminals	CT	VR = 0V, f = 1MHz			170	pF

»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
B0520W	SOD-123	SD	3K	Tape and reel
B0530W	SOD-123	SE	3K	Tape and reel
B0540W	SOD-123	SF	3K	Tape and reel