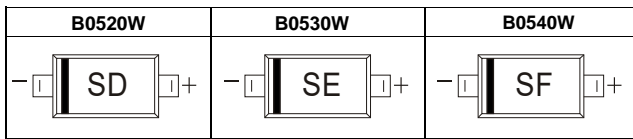


FEATURES

- Low Forward Voltage Drop
- Guard Ring Construction for Transient Protection
- High Conductance
- Also Available in Lead Free Version

MARKING:



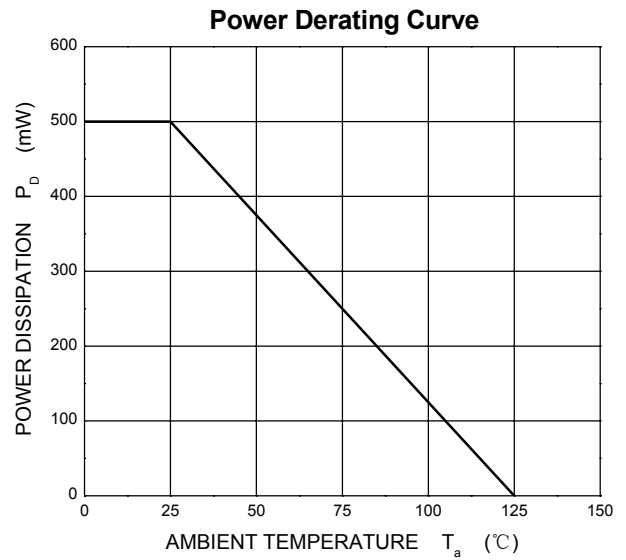
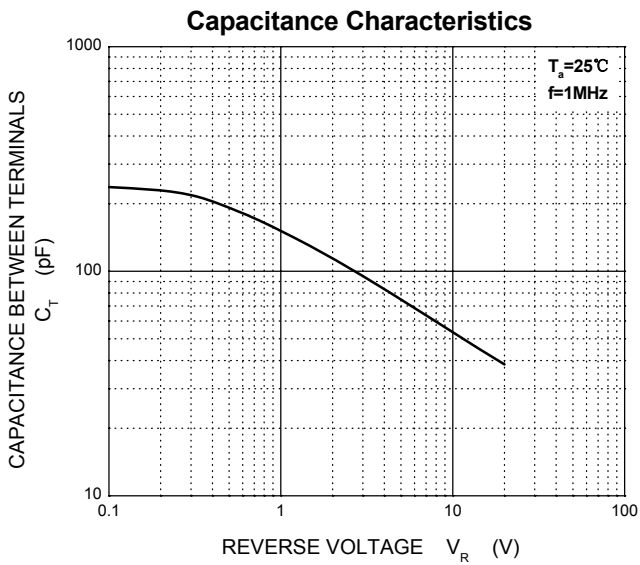
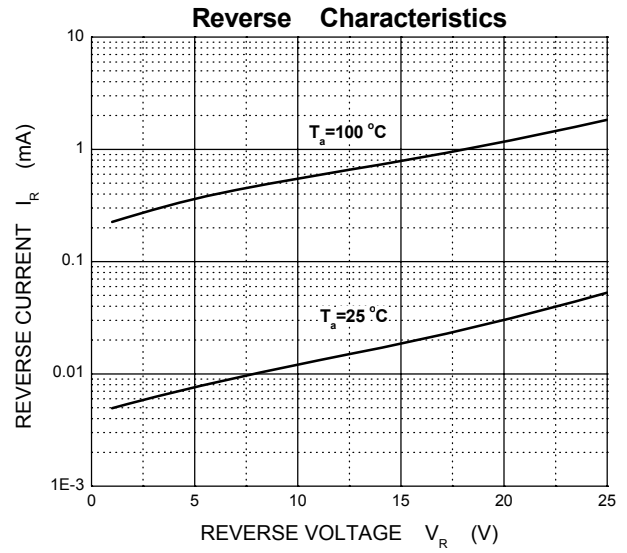
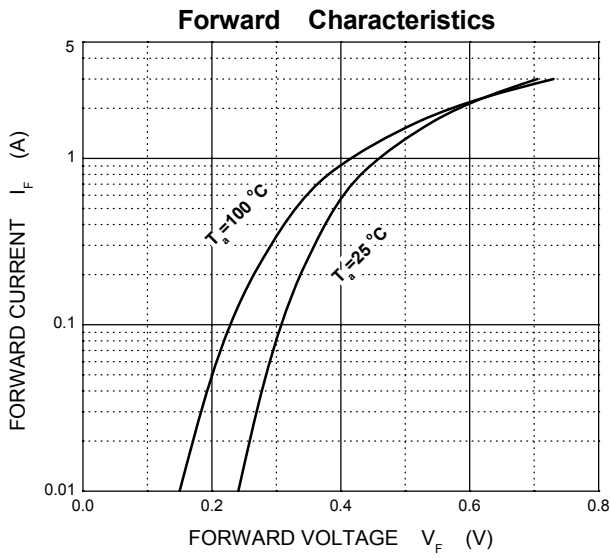
Maximum Ratings and Electrical Characteristics, Single Diode @Ta=25°C

Parameter	Symbol	B0520W	B0530W	B0540W	Unit
Non-Repetitive Peak Reverse Voltage	V_{RM}	20	30	40	V
Peak Repetitive Peak Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	20	30	40	V
RMS Reverse Voltage	$V_{R(RMS)}$	14	21	28	V
Average Rectified Output Current	I_o	0.5			A
Non-repetitive Peak Forward Surge Current @t=8.3ms	I_{FSM}	5.5			A
Repetitive Peak Forward Current	I_{FRM}	1.5			A
Power Dissipation	P_D	500			mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	200			°C/W
Operating Junction Temperature Range	T_J	-40 ~ +125			°C
Storage Temperature Range	T_{STG}	-55 ~ +150			°C

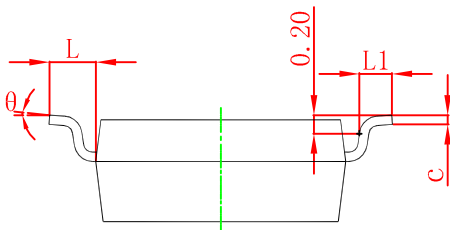
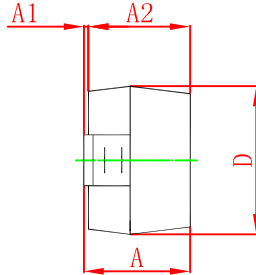
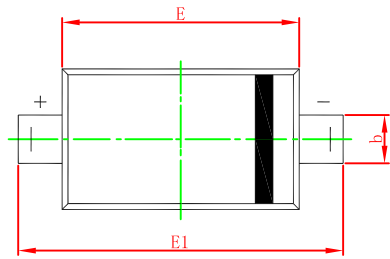
ELECTRICAL CHARACTERISTICS (Ta=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Max	Unit
Reverse breakdown voltage	$V_{(BR)}$	$I_R=1mA$			V
		B0520W	20		
		B0530W B0540W	30 40		
Reverse voltage leakage current	I_R	$V_R=20V$		0.25	mA
		$V_R=30V$		0.13	
		$V_R=40V$		0.02	
Forward voltage	V_F	B0520W	$I_F=0.1A$	0.330	V
			$I_F=0.5A$	0.385	
		B0530W	$I_F=0.1A$	0.375	V
			$I_F=0.5A$	0.430	
		B0540W	$I_F=0.5A$	0.510	V
			$I_F=1A$	0.620	
Diode capacitance	C_D	$V_R=4V, f=1MHz$		170	pF

Typical Characteristics

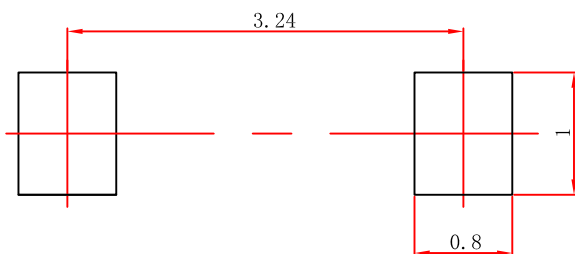


SOD-123 Package Outline Dimensions



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: $\pm 0.05\text{mm}$.
 3. The pad layout is for reference purposes only.