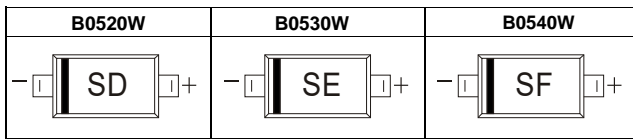


**FEATURES**

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

**MARKING:**



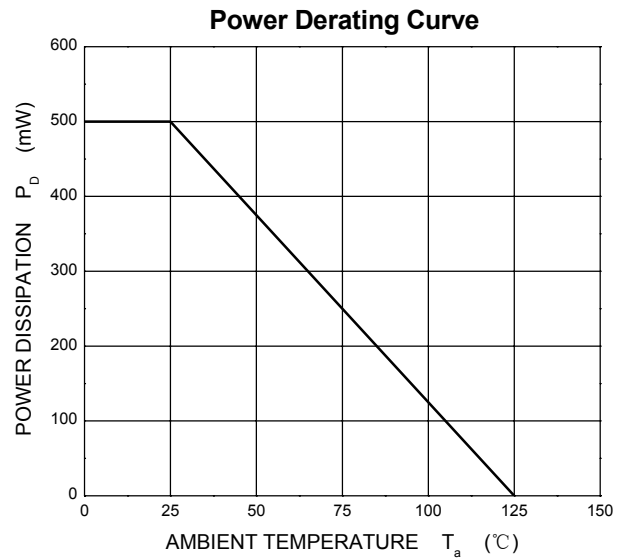
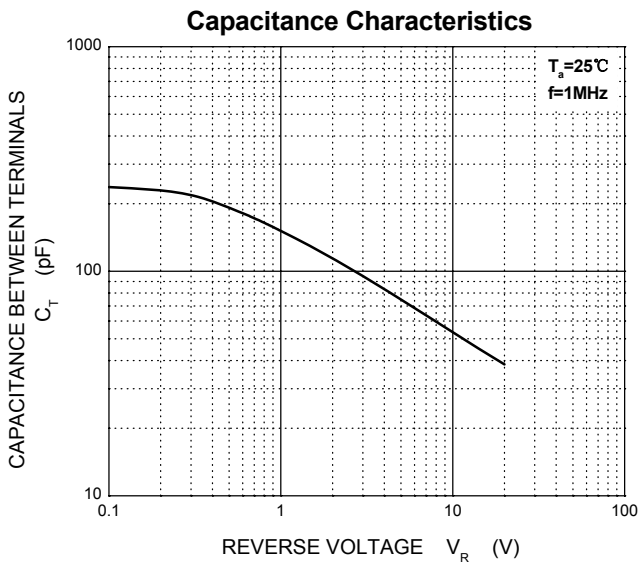
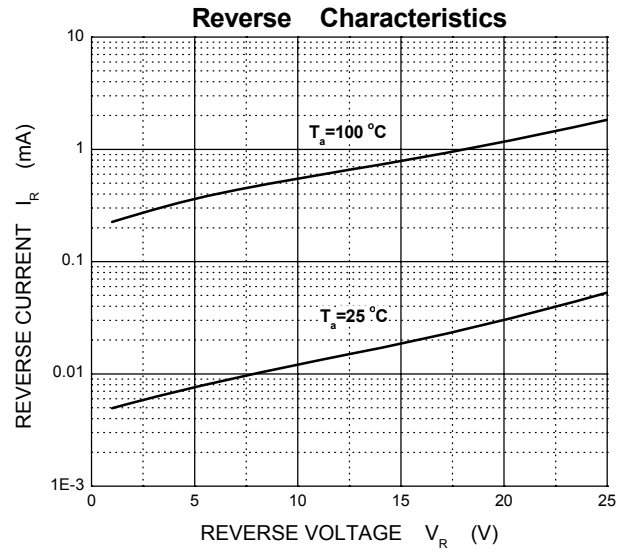
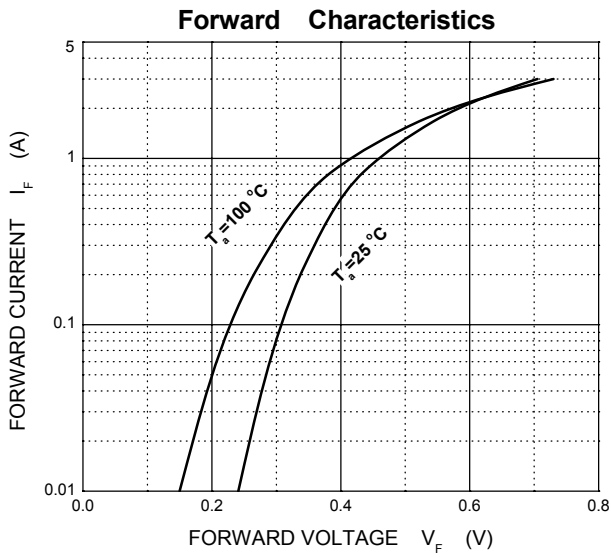
**Maximum Ratings and Electrical Characteristics, Single Diode @Ta=25°C**

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

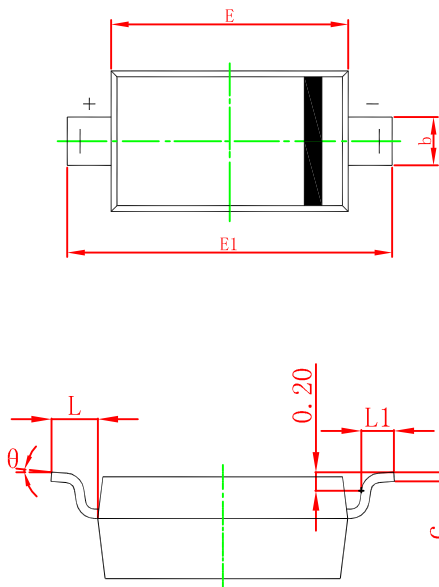
**ELECTRICAL CHARACTERISTICS (Ta=25°C unless otherwise specified)**

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

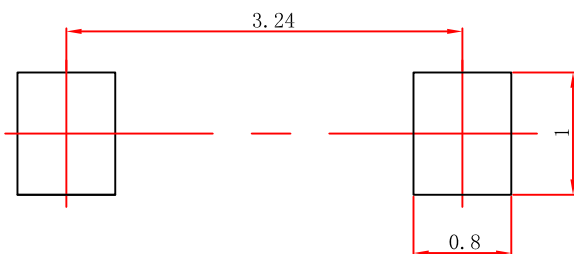


SOD-123 Package Outline Dimensions



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: ± 0.05mm.
  3. The pad layout is for reference purposes only.

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