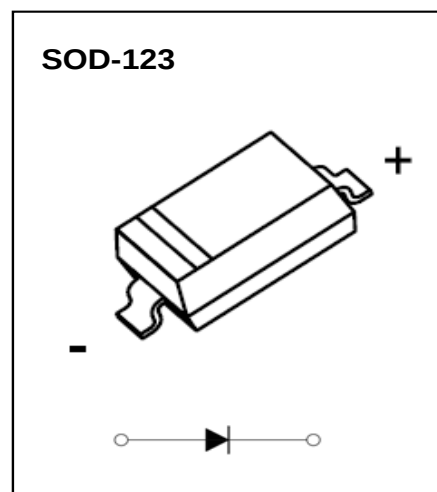
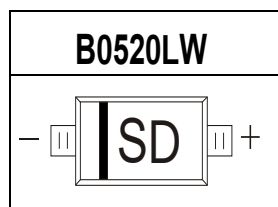


SOD-123 Plastic-Encapsulate Diodes**B0520LW****SCHOTTKY BARRIER DIODE****FEATURES**

- Low Forward Voltage Drop
- High Conductance

MARKING**MAXIMUM RATINGS** ($T_a=25^{\circ}\text{C}$ unless otherwise noted)

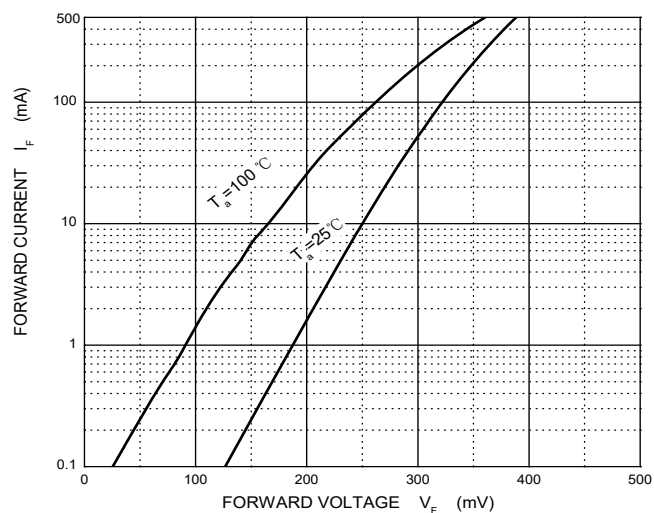
Parameter	Symbol	Value	Unit
Peak repetitive peak reverse voltage	V_{RRM}	20	V
Working peak reverse voltage	V_{RWM}		
DC blocking voltage	V_R		
RMS reverse voltage reverse voltage (DC)	$V_{R(RMS)}$	14	V
Average rectified output current	I_o	0.5	A
Non-repetitive Peak Forward Surge Current @ $t=8.3\text{ms}$	I_{FSM}	5.5	A
Power dissipation	P_D	500	mW
Thermal resistance junction to ambient	$R_{\theta JA}$	200	$^{\circ}\text{C}/\text{W}$
Operating Junction Temperature Range	T_j	$-40 \sim +125$	$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	$-55 \sim +150$	$^{\circ}\text{C}$
Voltage rate of change	dv/dt	1000	$\text{V}/\mu\text{s}$

ELECTRICAL CHARACTERISTICS ($T_a=25^{\circ}\text{C}$ unless otherwise specified)

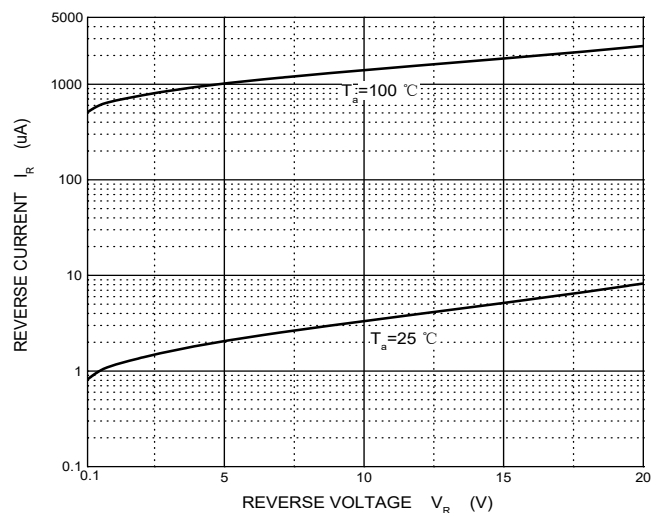
	Symbol	Test conditions	Min	Typ	Max	Unit
Reverse breakdown voltage	$V_{(BR)}$	$I_R=250\mu\text{A}$	20			V
Reverse current	I_R	$V_R=10\text{V}$			75	μA
		$V_R=20\text{V}$			250	
Forward voltage	V_F	$I_F=0.1\text{A}$			0.33	V
		$I_F=0.5\text{A}$			0.39	
Capacitance between terminals	C_T	$V_R=1\text{V}, f=1\text{MHz}$		170		pF

Typical Characteristics

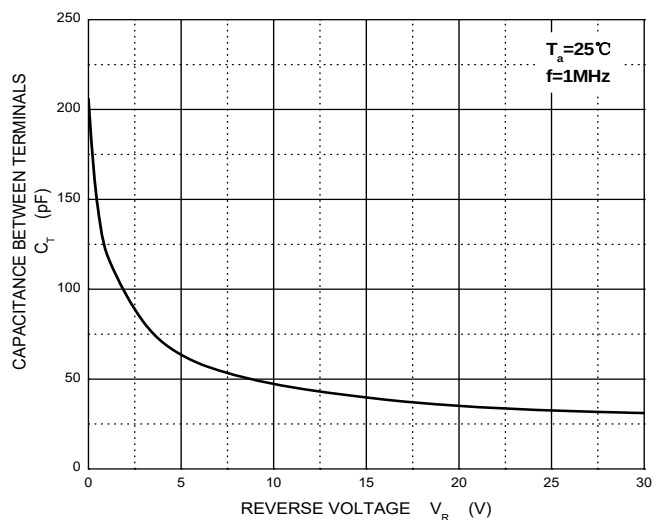
Forward Characteristics



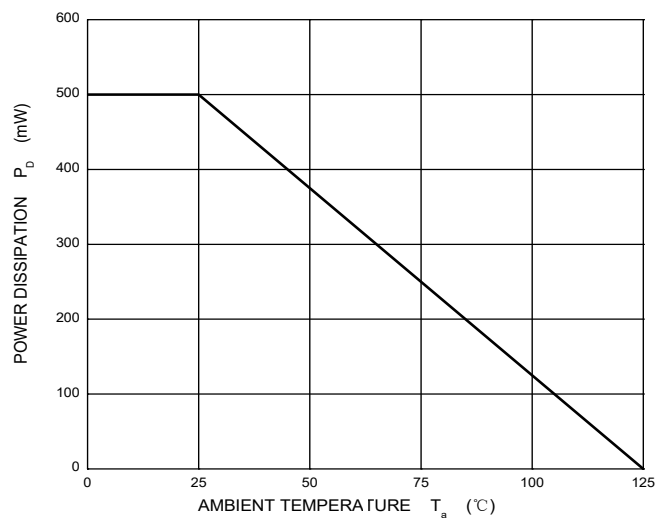
Reverse Characteristics



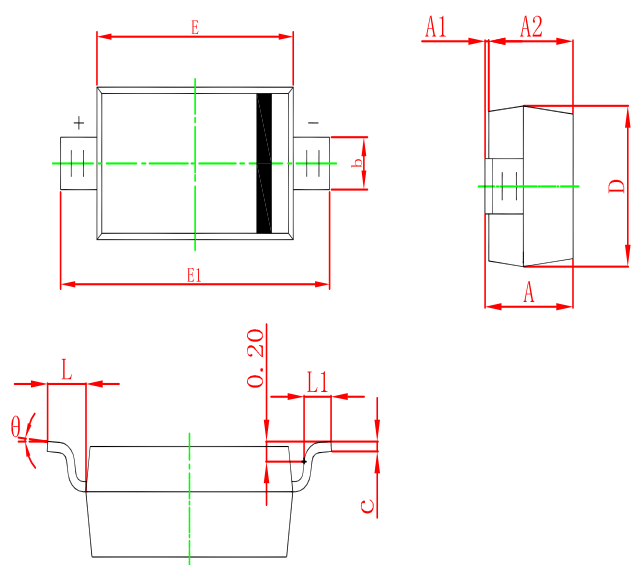
Capacitance Characteristics



Power Derating Curve

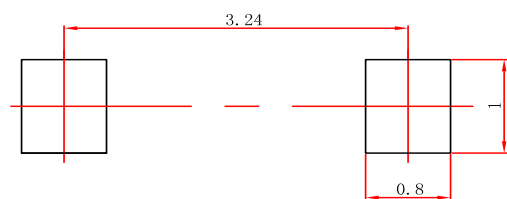


Package Outline Dimensions (SOD-123)



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

Suggested Pad Layout (SOD-123)



- Note:
- 1.Controlling dimension:in millimeters.
 - 2.General tolerance:± 0.05mm.
 - 3.The pad layout is for reference purposes only.