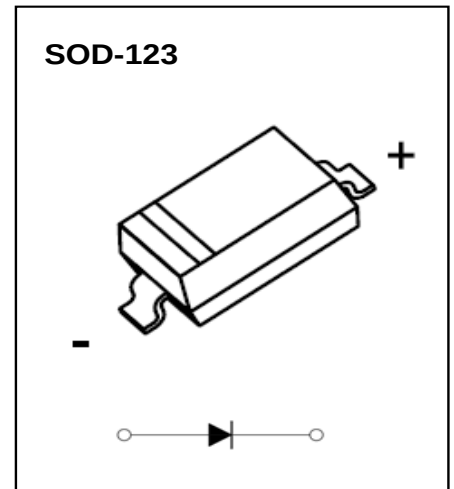
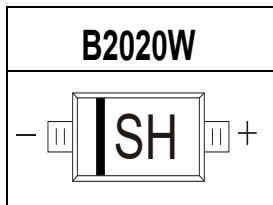


SOD-123 Plastic-Encapsulate Diodes**B2020W****SCHOTTKY BARRIER DIODE****FEATURES**

- Low Forward Voltage Drop
- Very Small SMD Package

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

Symbol	Parameter	Value	Unit	
V _{RRM}	Peak Repetitive Reverse Voltage	20	V	
V _{RWM}	Working Peak Reverse Voltage			
V _{R(RMS)}	RMS Reverse Voltage	14	V	
I _F	Continuous Forward Current	2	A	
I _{FSM}	Non-repetitive Peak Forward Surge Current @ t=8.3ms	9	A	
P _D	Power Dissipation	Note1	300	mW
		Note2	670	mW
R _{θJA}	Thermal Resistance from Junction to Ambient	Note1	333	°C/W
		Note2	149	°C/W
T _j	Operating Junction Temperature Range	-40 ~ +125	°C	
T _{stg}	Storage Temperature Range	-55 ~ +150	°C	

1: Device mounted on an FR4 PCB, single-sided copper, tin-plated and standard footprint.

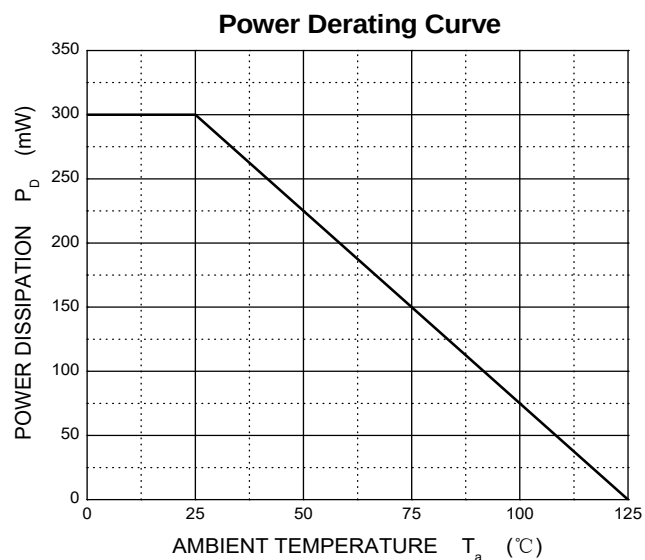
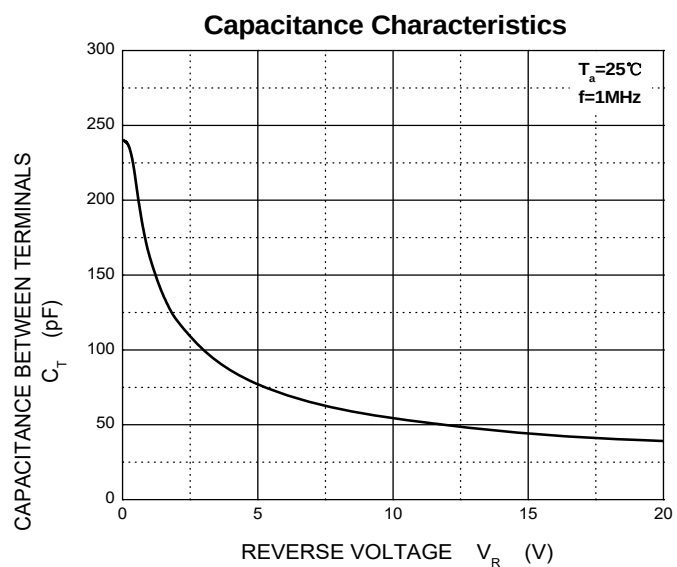
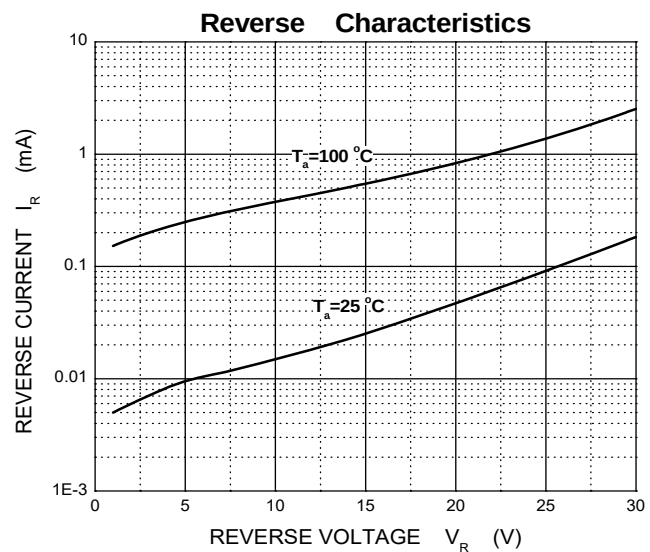
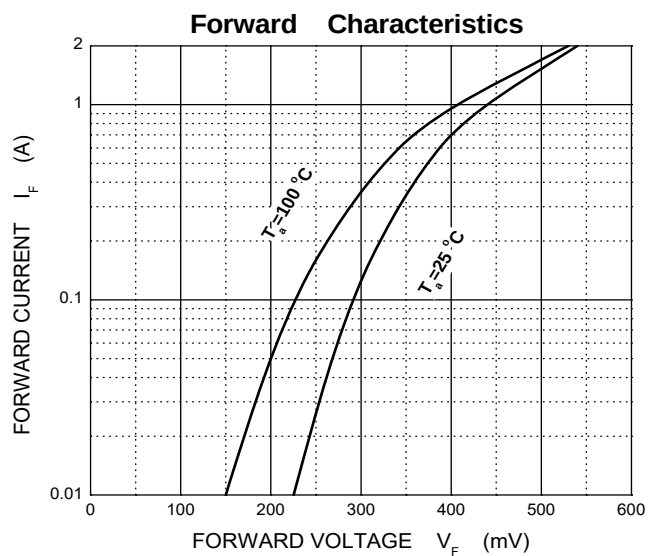
2: Device mounted on an FR4 PCB, single-sided copper, tin-plated, mounting pad for cathode 1cm^2 .

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

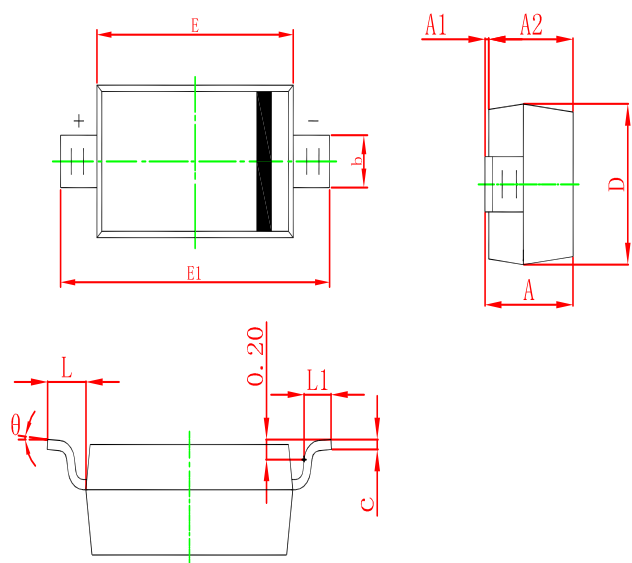
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Reverse breakdown voltage	$V_{(BR)}$	$I_R=1\text{mA}$	20			V
Reverse current	I_R	$V_R=10\text{V}$			80	μA
		$V_R=20\text{V}$			100	
Forward voltage	V_F^*	$I_F=1\text{A}$			0.45	V
		$I_F=2\text{A}$			0.55	
Total capacitance	C_{tot}	$V_R=4\text{V}, f=1\text{MHz}$			120	pF

*Pulse test: $t_p \leq 300 \mu\text{s}$; $\delta \leq 0.02$.

Typical Characteristics

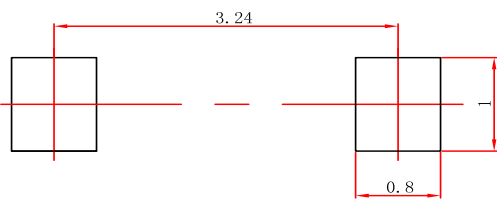


Package Outline Dimensions (SOD-123)



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