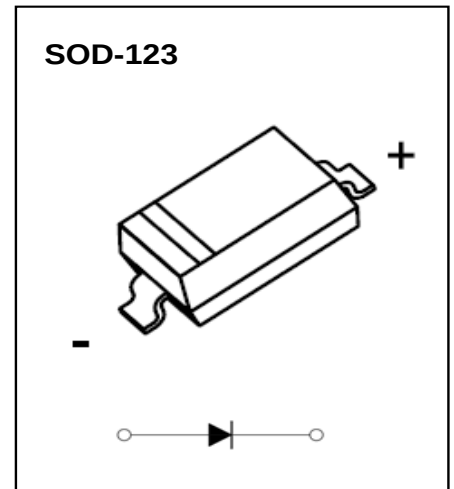
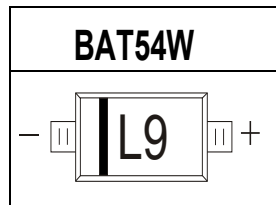


SOD-123 Plastic-Encapsulate Diodes**BAT54W****SCHOTTKY BARRIER DIODE****FEATURES**

- Fast Switching Speed
- Low Forward Voltage Drop

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

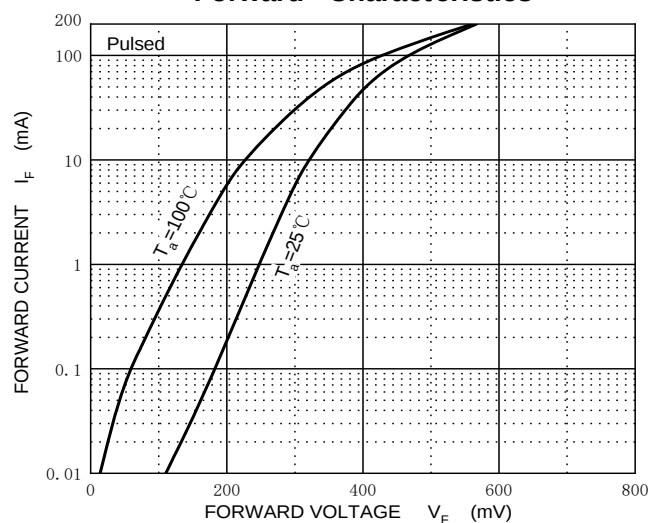
Parameter	Symbol	Limit	Unit
DC blocking voltage	V_R	30	V
RMS reverse voltage	$V_{R(RMS)}$	21	
Average rectified output current	I_o	100	mA
Forward continuous current	I_F	200	mA
Repetitive peak forward current	I_{FRM}	300	mA
Non-repetitive Peak Forward Surge Current @ $t=8.3\text{ms}$	I_{FSM}	600	mA
Power 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}	$-55 \sim +150$	$^{\circ}\text{C}$

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

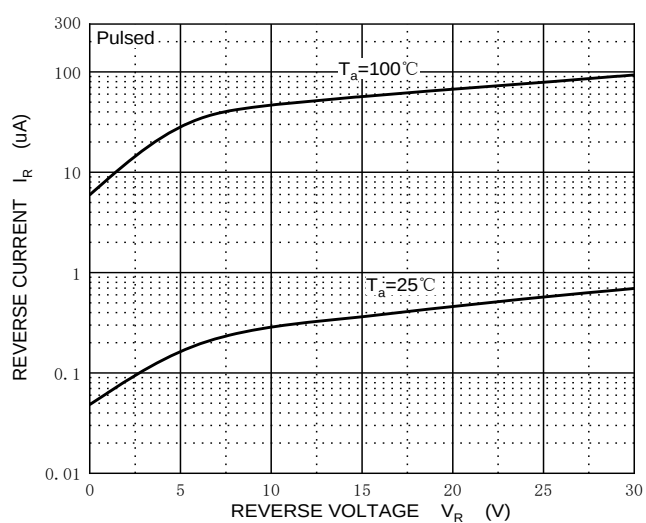
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Reverse breakdown voltage	$V_{(BR)}$	$I_R=100\mu\text{A}$	30			V
Forward voltage	V_{F1}	$I_F=0.1\text{mA}$			240	mV
	V_{F2}	$I_F=1.0\text{mA}$			320	mV
	V_{F3}	$I_F=10\text{mA}$			400	mV
	V_{F4}	$I_F=30\text{mA}$			500	mV
	V_{F5}	$I_F=100\text{mA}$			1000	mV
Reverse current	I_R	$V_R=25\text{V}$			2.0	μA
Reverse recovery time	t_{rr}	$I_F=10\text{mA}$, $I_R=10\text{mA}$ to 1mA , $R_L=100\Omega$			5.0	ns
Capacitance between terminals	C_T	$V_R=1\text{V}$, $f=1\text{MHz}$			10	pF

Typical Characteristics

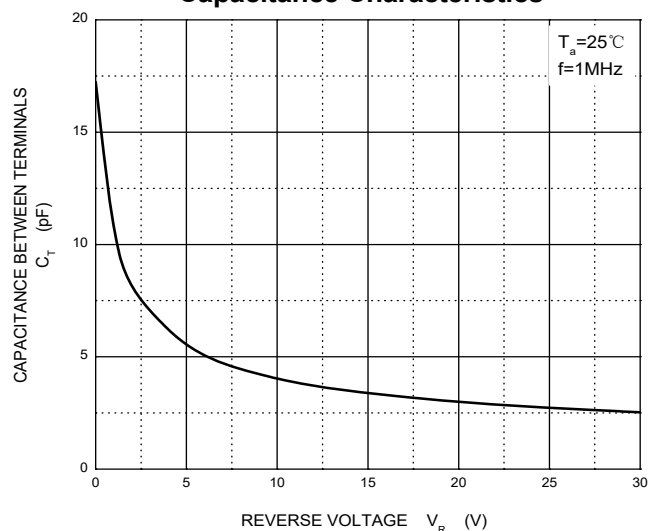
Forward Characteristics



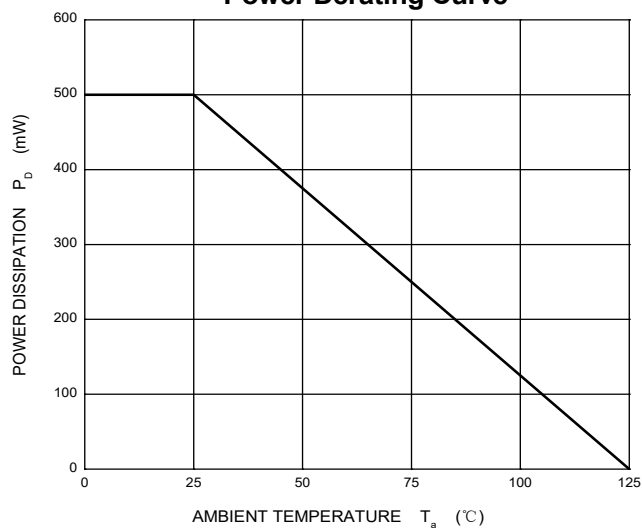
Reverse Characteristics



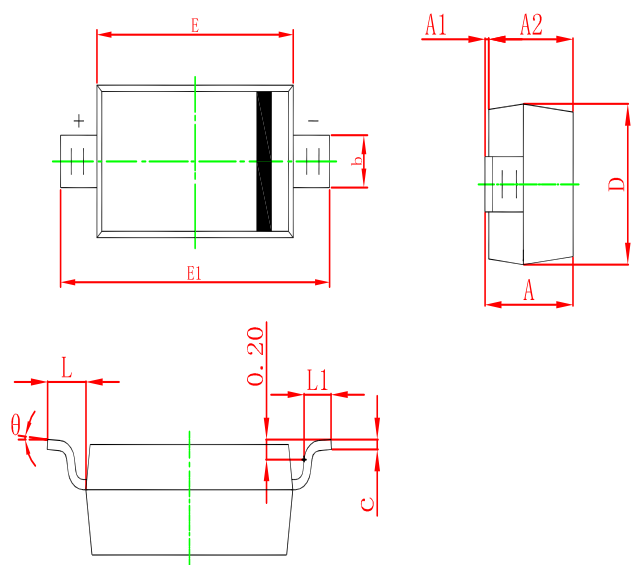
Capacitance Characteristics



Power Derating Curve

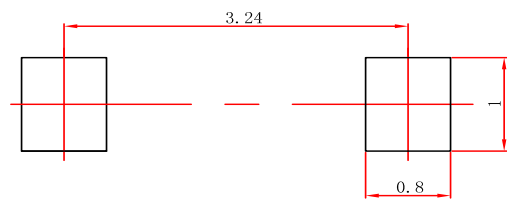


Package Outline Dimensions (SOD-123)



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.