

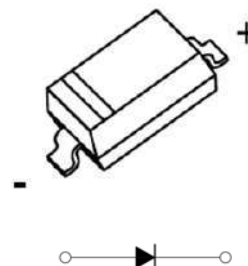
SOD-123 Plastic-Encapsulate Diodes

SCHOTTKY BARRIER DIODE

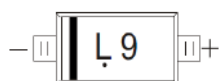
FEATURES

- Low Forward Voltage Drop
- Fast Switching
- Small Surface Mount Package
- PN Junction Guard Ring for Transient and ESD Protection
- Available in Lead Free Version

SOD-123



MARKING: L9



The marking bar indicates the cathode
 Solid dot = Green molding compound device.

Maximum Ratings @Ta=25°C

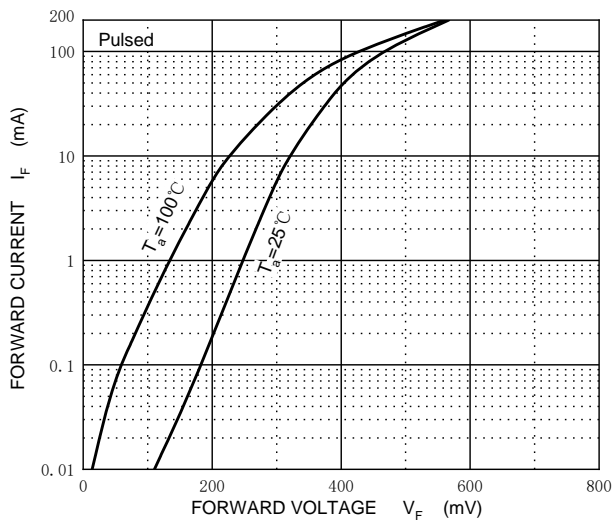
Parameter	Symbol	Limit	Unit
DC blocking voltage	V_R	30	V
RMS reverse voltage	$V_{R(RMS)}$	21	V
Average rectified output current	I_o	100	mA
Forward continuous current	I_F	200	mA
Repetitive peak forward current	I_{FRM}	300	mA
Non-repetitive Peak Forward Surge Current @t=8.3ms	I_{FSM}	600	mA
Power dissipation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

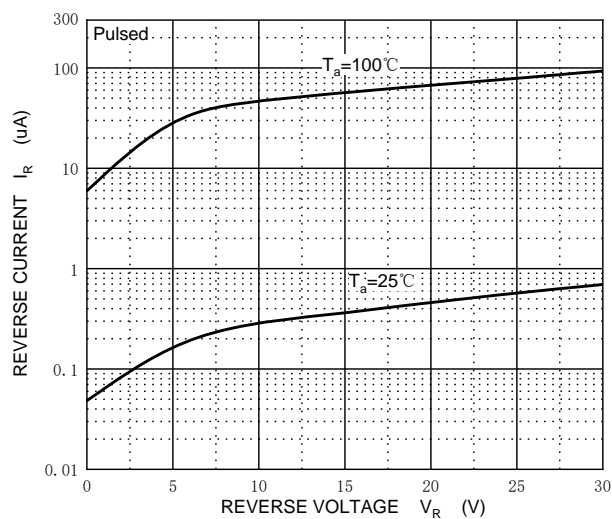
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Reverse breakdown voltage	$V_{(BR)}$	$I_R=100\mu A$	30			V
Forward voltage	V_{F1}	$I_F=0.1mA$			240	mV
	V_{F2}	$I_F=1.0mA$			320	mV
	V_{F3}	$I_F=10mA$			400	mV
	V_{F4}	$I_F=30mA$			500	mV
	V_{F5}	$I_F=100mA$			1000	mV
Reverse current	I_R	$V_R=25V$			2.0	uA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

Typical Characteristics

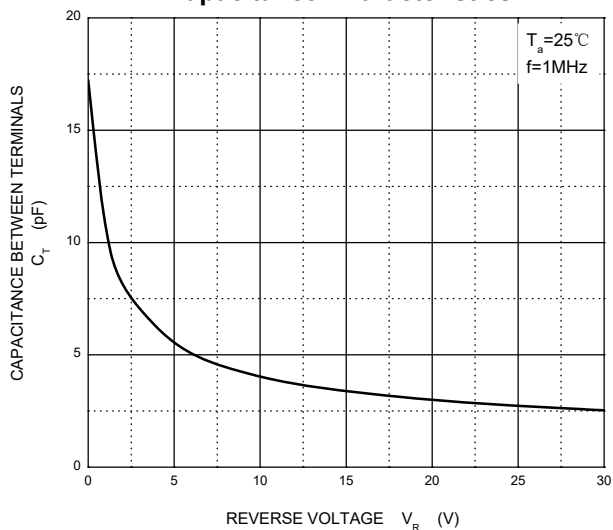
Forward Characteristics



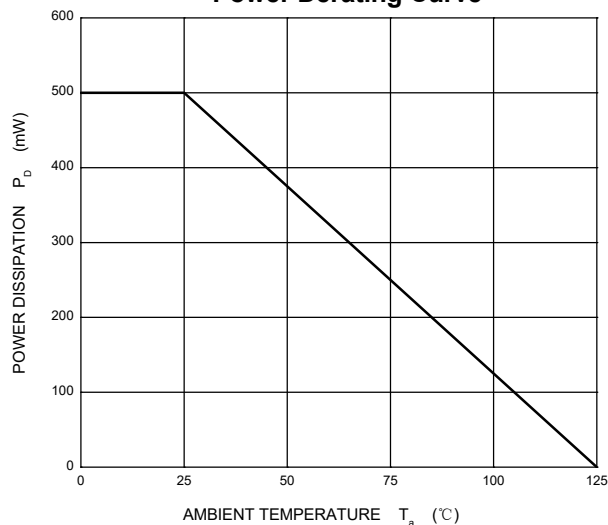
Reverse Characteristics



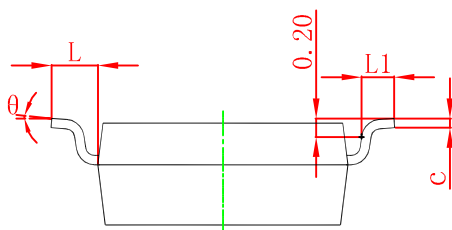
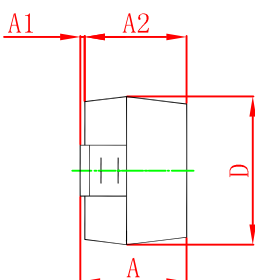
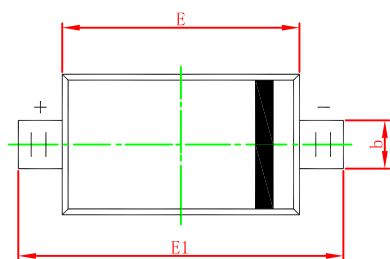
Capacitance Characteristics



Power Derating Curve

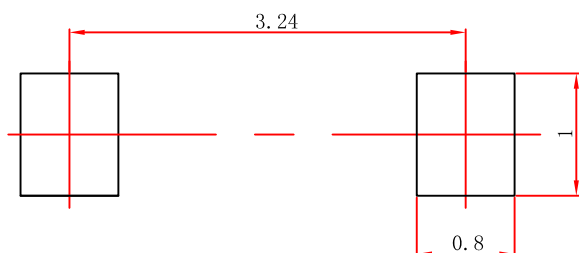


SOD-123 Package Outline Dimensions



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°

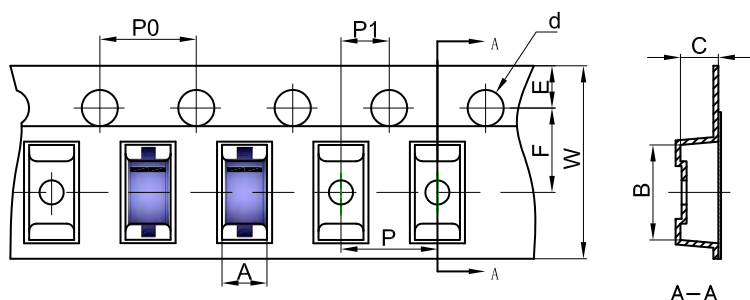
SOD-123 Suggested Pad Layout



- Note:**
1. Controlling dimension: in millimeters.
 2. General tolerance: $\pm 0.05\text{mm}$.
 3. The pad layout is for reference purposes only.

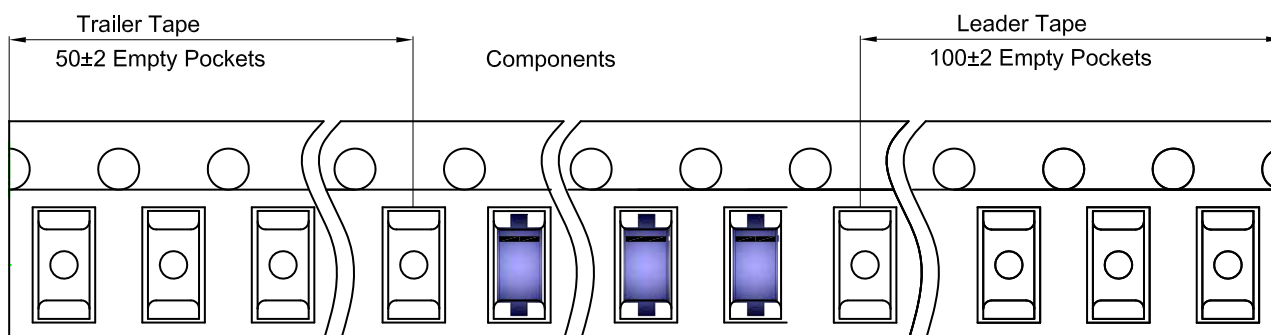
SOD-123 Tape and Reel

SOD-123 Embossed Carrier Tape

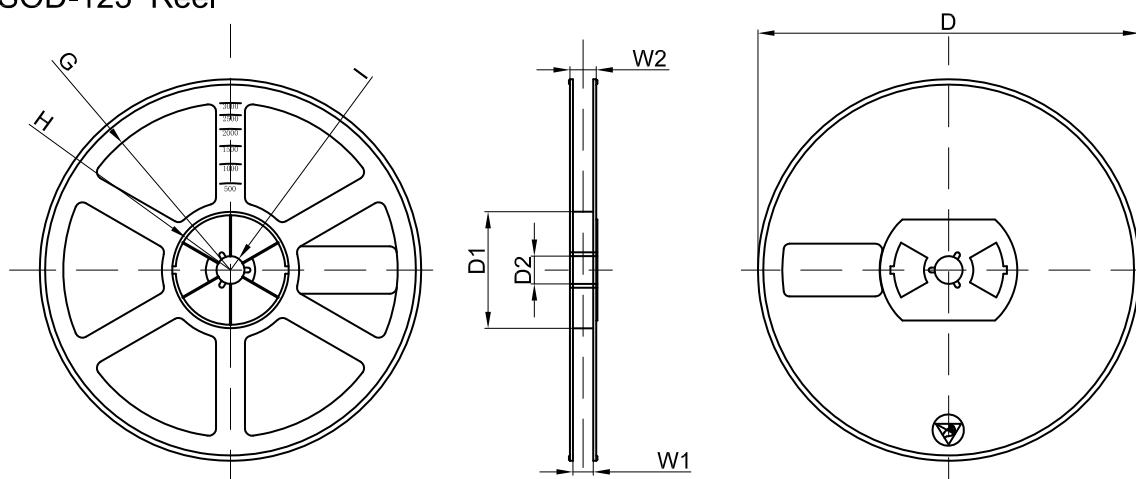


Dimensions are in millimeter										
Pkg type	A	B	C	d	E	F	P0	P	P1	W
SOD-123	1.85	3.95	1.57	Ø1.55	1.75	3.50	4.00	4.00	2.00	8.00

SOD-123 Tape Leader and Trailer



SOD-123 Reel



Dimensions are in millimeter								
Reel Option	D	D1	D2	G	H	I	W1	W2
7" Dia	Ø178.00	54.40	13.00	R78.00	R25.60	R6.50	9.50	12.30

REEL	Reel Size	Box	Box Size(mm)	Carton	Carton Size(mm)	G.W.(kg)
3000 pcs	7 inch	45,000 pcs	203×203×195	180,000 pcs	438×438×220	