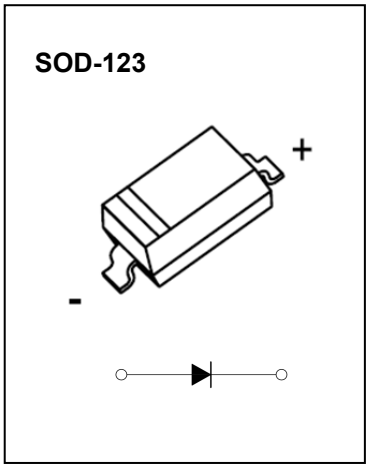
SOD-123 Plastic-Encapsulate Diodes

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



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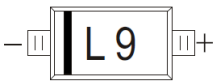


Maximum Ratings @Ta=25℃

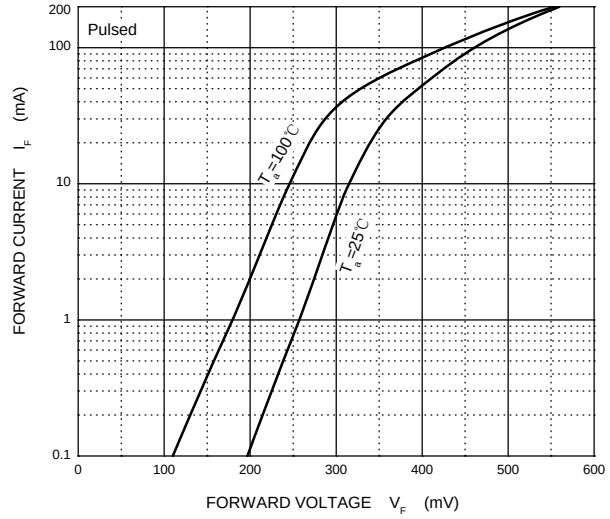
Parameter	Symbol	Limit	Unit
DC blocking voltage RMS reverse voltage	V_R $V_{R(RMS)}$	30 21	V
Average rectified output current	Io	100	mA
Forward continuous current	I_F	200	mA
Repetitive peak forward current	I_{FRM}	300	mA
Non-repetitive Peak Forward Surge Current @t=8.3ms	I_{FSM}	600	mA
Power dissipation	Pd	500	mW
Thermal resistance junction to ambient	$R_{\theta JA}$	200	℃/W
Junction temperature	T_J	125	℃
Storage temperature range	T_{STG}	-55~+150	℃

Electrical Characteristics @Ta=25℃

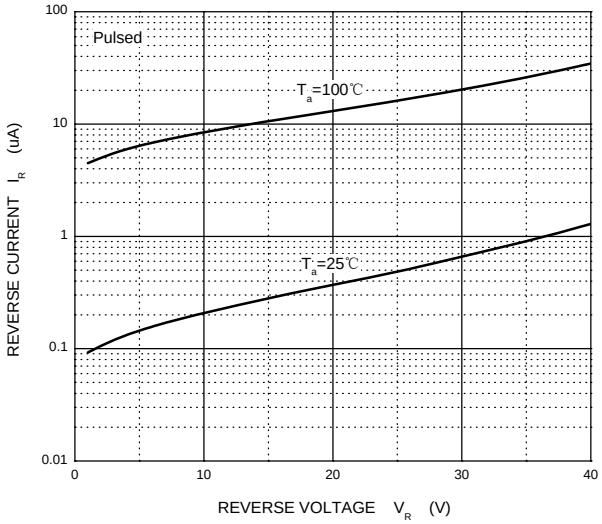
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Reverse breakdown voltage	$V_{(BR)}$	I_R=100μA	30			V
Forward voltage	V_{F1}	I_F=0.1mA			240	mV
	V_{F2}	I_F=1.0mA			320	mV
	V_{F3}	I_F=10mA			400	mV
	V_{F4}	I_F=30mA			500	mV
	V_{F5}	I_F=100mA			1000	mV
Reverse current	I_R	V_R=25V			2.0	uA
Reverse recovery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

Typical Characteristics

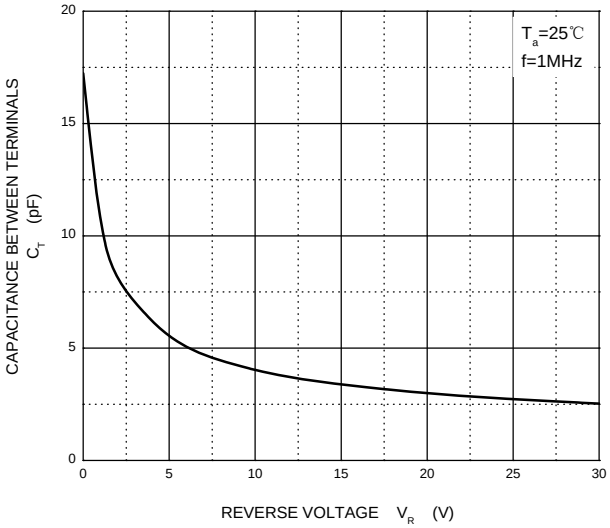
Forward Characteristics



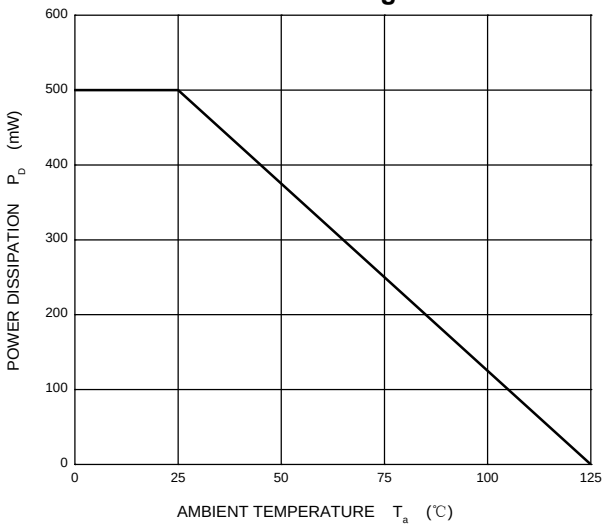
Reverse Characteristics



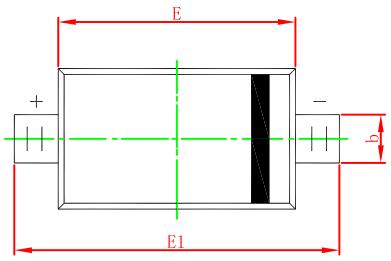
Capacitance Characteristics

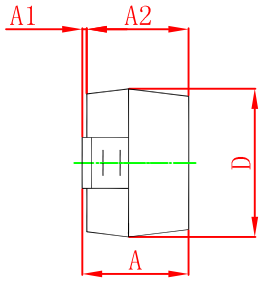


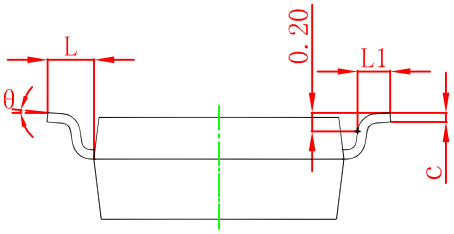
Power Derating Curve



SOD-123 Package Outline Dimensions

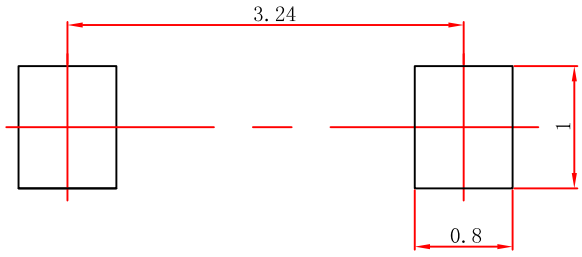






Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.050	1.250	0.041	0.049
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.041	0.045
b	0.450	0.650	0.018	0.026
c	0.080	0.150	0.003	0.006
D	1.500	1.700	0.059	0.067
E	2.600	2.800	0.102	0.110
E1	3.550	3.850	0.140	0.152
L	0.500 REF		0.020 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:±0.05mm.
3.The pad layout is for reference purposes only.