

FEATURES

- Low Forward Voltage Drop
- Guard Ring Construction for Transient Protection
- Negligible Reverse Recovery Time
- Low Capacitance
- Ultra-small Surface Mount Package

SOD-123



MARKING: S2

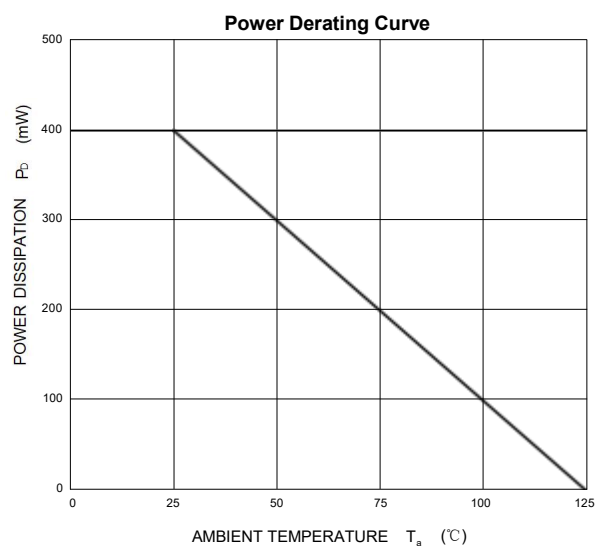
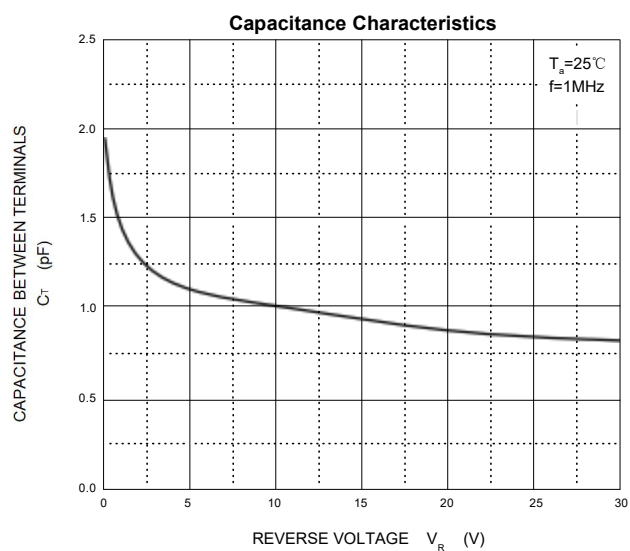
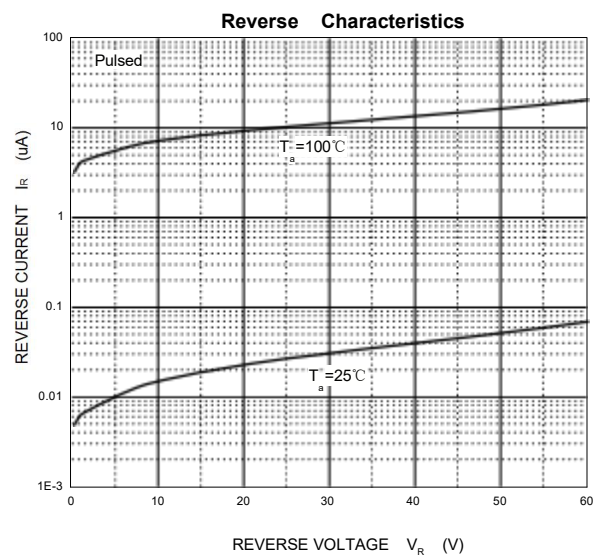
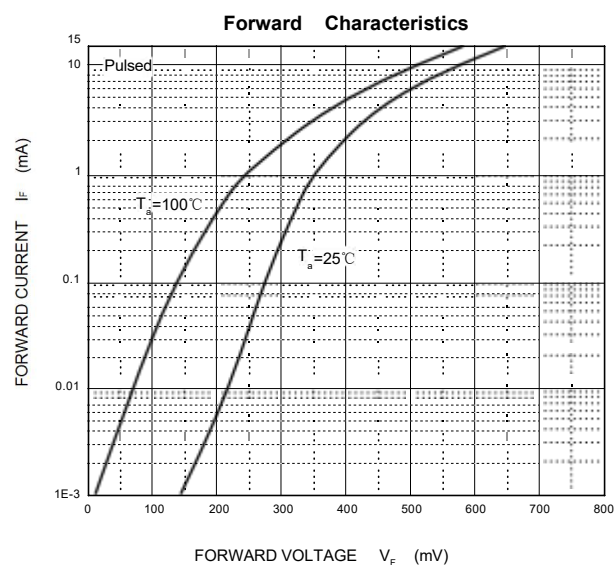
MAXIMUM RATINGS ($T_a=25^{\circ}\text{C}$ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{RRM}	Peak Repetitive Reverse Voltage	50	V
V_{RWM}	Working Peak Reverse Voltage		
V_R	DC Blocking Voltage		
$V_{R(RMS)}$	RMS Reverse Voltage	35	V
I_{FM}	Forward Continuous Current	15	mA
I_{FSM}	Non-repetitive Peak Forward Surge Current @ $t=8.3\text{ms}$	2	A
P_D	Power Dissipation	400	mW
$R_{\theta JA}$	Thermal Resistance from Junction to Ambient	250	$^{\circ}\text{C/W}$
T_j	Operating Junction Temperature Range	$-40 \sim +125$	$^{\circ}\text{C}$
T_{stg}	Storage Temperature Range	$-55 \sim +150$	$^{\circ}\text{C}$

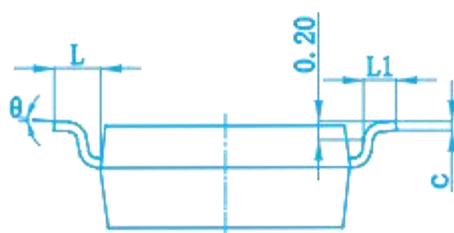
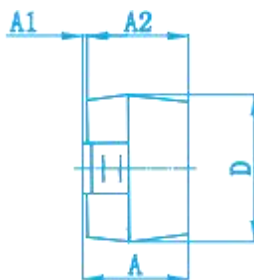
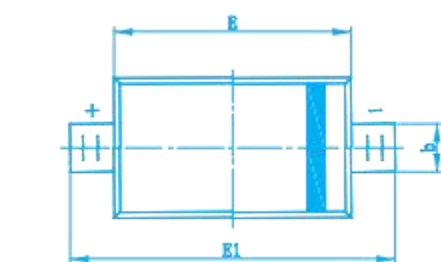
ELECTRICAL CHARACTERISTICS($T_a=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Reverse voltage	$V_{(BR)}$	$I_R=10\mu\text{A}$	50			V
Reverse current	I_R	$V_R=40\text{V}$			0.2	μA
Forward voltage	V_F	$I_F=1\text{mA}$			0.40	V
		$I_F=15\text{mA}$			0.95	
Total capacitance	C_{tot}	$V_R=0\text{V}, f=1\text{MHz}$			2.1	pF
Reverse recovery time	t_{rr}	$I_F=I_R=5\text{mA}, I_{rr}=0.1 \times I_R, R_L=100\Omega$			1	ns

Typical Characteristics

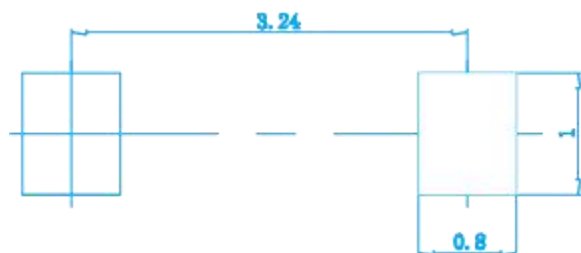


SOD-123 Package Outline Dimensions



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.