

Features

- ◆ Fast Switching Speed
- ◆ Surface Mount Package Ideally Suited for
- ◆ Automatic Insertion
- ◆ For General Purpose Switching Applications
- ◆ High Conductance



SOD-123

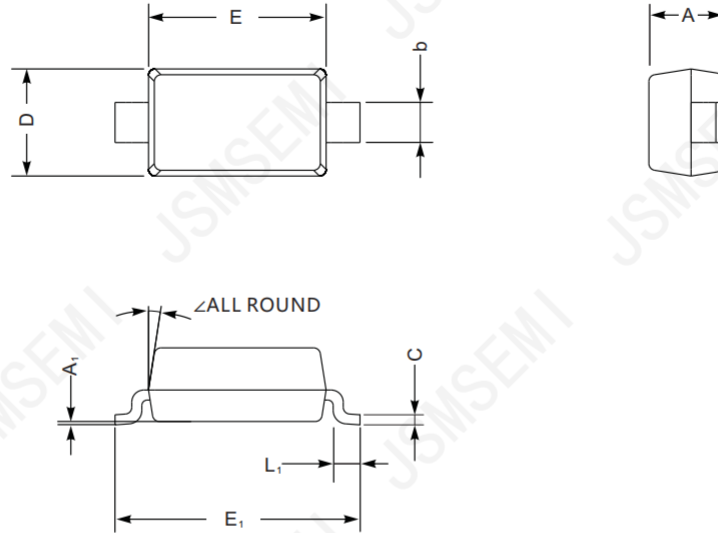
Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Non-Repetitive Peak Reverse Voltage	V_{RM}	100	V
Peak repetitive reverse voltage	V_{RRM}	75	V
Working peak reverse voltage	V_R		
DC blocking voltage			
RMS reverse voltage	$V_{R(RMS)}$	53	V
Average rectified output current	I_O	150	mA
Forward Continuous Current	I_{FM}	300	mA
Non-Repetitive Peak Forward Surge Current @ $t = 1.0 \mu\text{s}$	I_{FSM}	2.0	A
@ $t = 1.0\text{s}$		1.0	
Power dissipation	P_D		mW
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$	315	$^\circ\text{C/W}$
Operating and storage temperature range	T_j, T_{stg}	-65 to +150	$^\circ\text{C}$

Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Reverse Breakdown Voltage	$V_{(BR)R}$	$I_R = 1.0 \mu\text{A}$	75			V
Forward voltage	V_{FM}	$I_F = 1.0\text{mA}$ $I_F = 10\text{mA}$ $I_F = 50\text{mA}$ $I_F = 150\text{mA}$			0.745 0.855 1.0 1.25	V
Peak Reverse current	I_{RM}	$V_R = 75\text{V}$ $V_R = 75\text{V}, T_J = 150^\circ\text{C}$ $V_R = 25\text{V}, T_J = 150^\circ\text{C}$ $V_R = 20\text{V}$			1.0 50 30 25	μA μA nA nA
Junction Capacitance	C_J	$V_R = 0, f = 1.0\text{MHz}$			2.0	pF
Reverse Recovery Time	t_{rr}	$I_F = I_R = 10\text{mA}, I_{rr} = 0.1 \times I_R, R_L = 100 \Omega$			4.0	ns

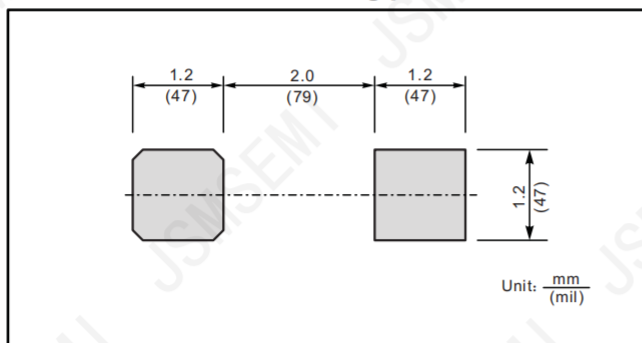
SOD-123



SOD-123 mechanical data

UNIT		A	C	D	E	E ₁	L ₁	b	A ₁	∠
mm	max	1.3	0.22	1.8	2.8	3.9	0.45	0.7	0.2	9°
	min	0.9	0.09	1.5	2.5	3.6	0.25	0.5	—	
mil	max	51	8.7	71	110	154	18	28	8	
	min	35	3.5	59	98	142	10	20	—	

The recommended mounting pad size



Revision History

Rev.	Change	Date
V1.0	Initial version	2/23/2024

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