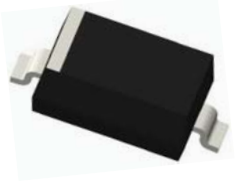
Switching Diodes

1KS3010E

SOD-123



1 2

Top View

PIN DESCRIPTION

PIN	DESCRIPTION
1	Cathode
2	Anode

■ Features

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

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Reverse Voltage	V_{RM}	100	V
Peak Repetitive Peak Reverse Voltage	V_{RRM}	100	
Working Peak Reverse Voltage	V_{RWM}		
DC Blocking Voltage	V_R		
RMS Reverse Voltage	$V_{R(RMS)}$	71	
Average Rectified Output Current	I_O	150	mA
Forward Continuous Current	I_{FM}	300	
Peak Forward Surge Current @ t=1us	I_{FSM}	2	A
@ t =1s		1	
Power Dissipation	P_d	500	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	250	℃/W
Junction Temperature	T_J	150	℃
Storage Temperature range	T_{stg}	-55 to 150	

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse breakdown voltage	V_R	I_R= 100uA	100			V
Forward voltage	V_{F1}	I_F= 1mA			0.715	
	V_{F2}	I_F= 10 mA			0.855	
	V_{F3}	I_F= 50 mA			1	
	V_{F4}	I_F= 150 mA			1.25	
Reverse voltage leakage current	I_{R1}	V_R= 75 V			1	uA
	I_{R2}	V_R=20 V			25	nA
Junction capacitance	C_j	V_R= 0 V, f= 1 MHz			2	pF
Reverse recovery time	t_{rr}	I_F=I_R=10mA,Irr=0.1xI_R, R_L=100Ω			4	ns

■ Marking

Marking	S1E

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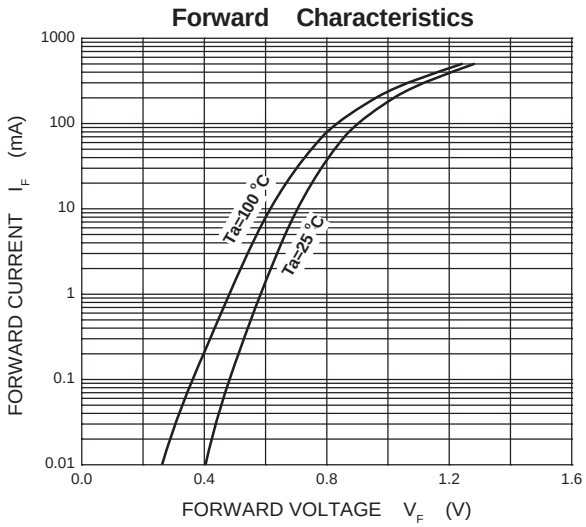
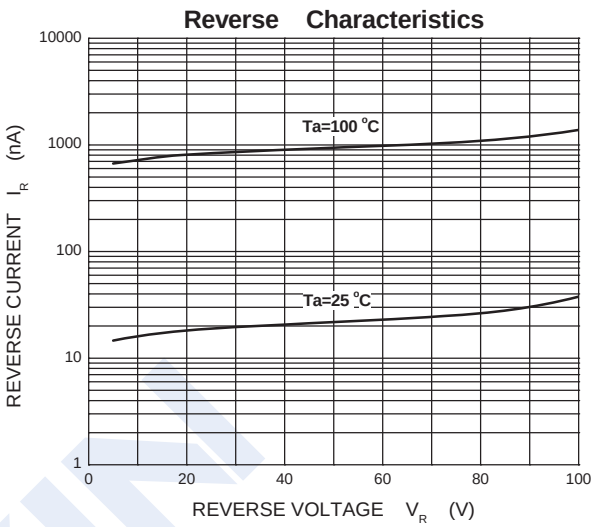
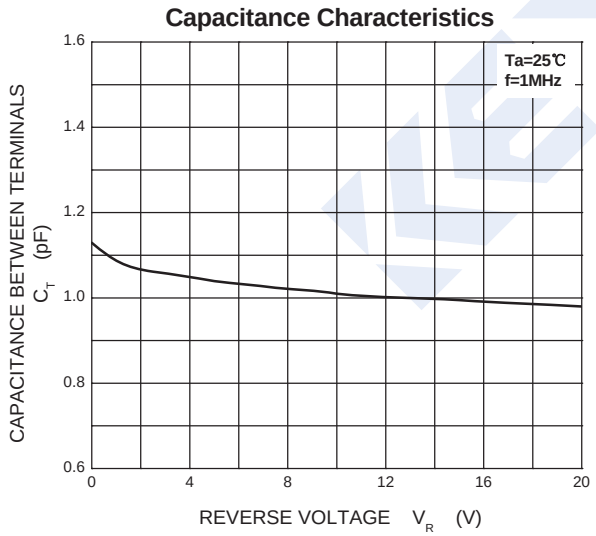
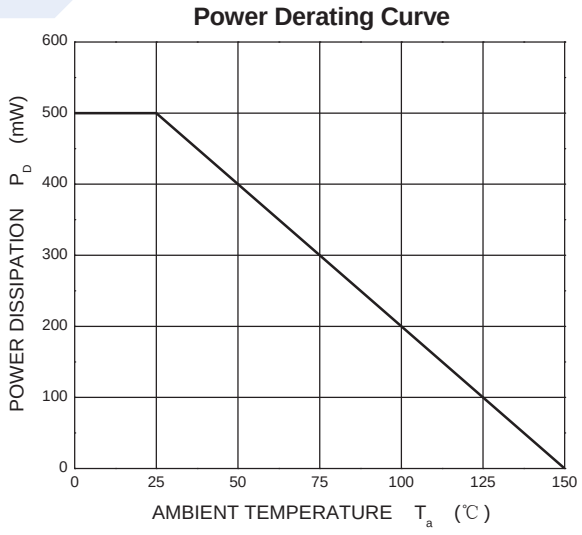
■ Typical Characterisitics









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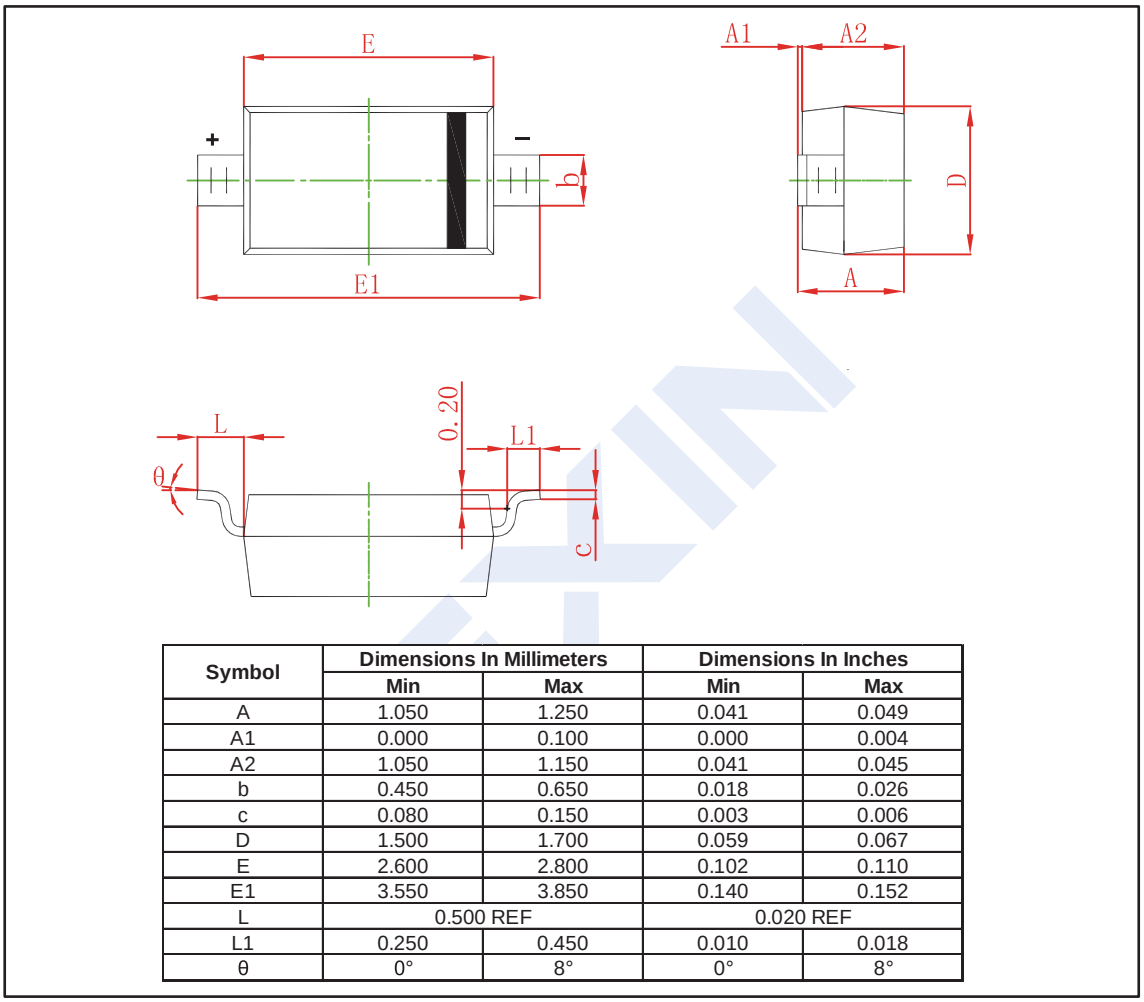
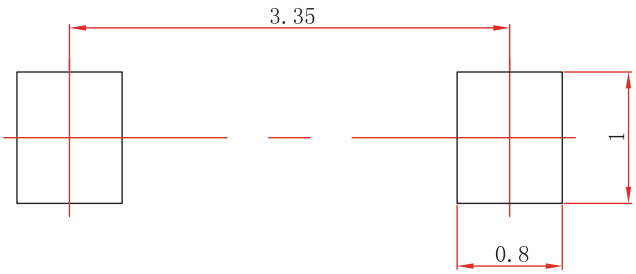
■ Package Outline Dimensions

Plastic surface mounted package; 2 leads 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°

■ The Recommended Mounting Pad Size



Note:

1.Controlling dimension in millimeters.

2.General tolerance:±0.05mm.

3.The pad layout is for reference purposes only.