Schottky Diodes

1KK2004E

■ Features

● Low Forward Voltage Drop.

● Fast Switching Time.

SOD-123

Top View

PIN DESCRIPTION

PIN	DESCRIPTION
1	Cathode
2	Anode

■ Absolute Maximum Ratings (Ta = 25℃, unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	40	V
Working Peak Reverse Voltage	V_{RWM}		
DC Reverse Voltage	V_R		
RMS Reverse Voltage	$V_{R(RMS)}$	28	
Non-Repetitive Peak Forward Current	I_{FM}	350	mA
Non-Repetitive Peak Forward Surge Current	I_{FSM}	1.5	A
Power Dissipation	P_d	400	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	300	℃/W
Junction Temperature	T_J	125	℃
Storage Temperature range	T_{stg}	-55 to 150	

■ Electrical Characteristics (Ta = 25℃, unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse breakdown voltage	V_R	I_R= 10 µA	40			V
Forward voltage Drop	V_F	I_F= 20 mA			0.37	
		I_F= 200 mA			0.6	
Instantaneous Reverse current	I_{RM}	V_R= 30 V			5	µA
Total capacitance	C_T	V_R= 0 V, f= 1 MHz		50		pF
Reverse recovery time	t_{rr}	I_F=I_R= 200mA,Irr=0.1xI_R, R_L=100Ω		10		ns

■ Marking

Marking	S4

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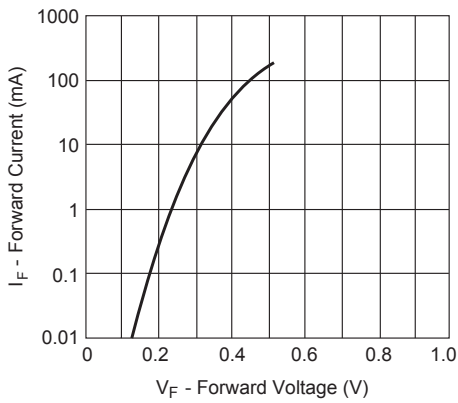# 1KK2004E

■ Typical Characterisitics

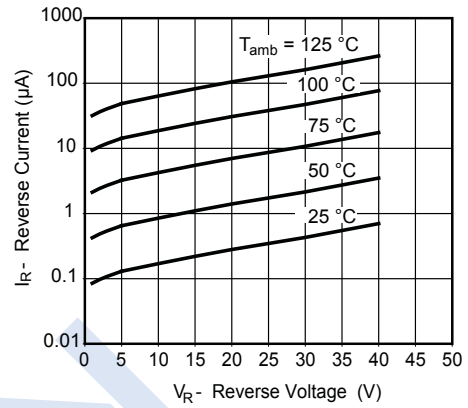Fig. 1 - Typical Variation of Forward Current vs. Forward Voltage

Fig. 3 - Typical Variation of Reverse Current at Various Temperatures
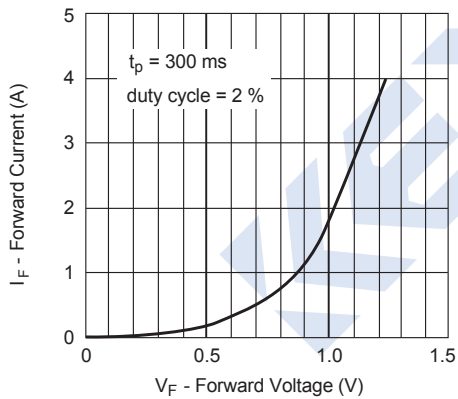
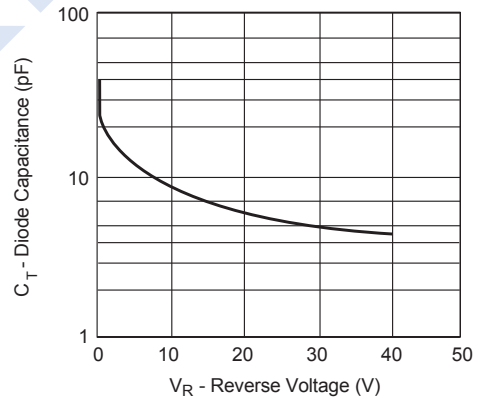

Fig. 2 - Typical High Current Forward Conduction Curve

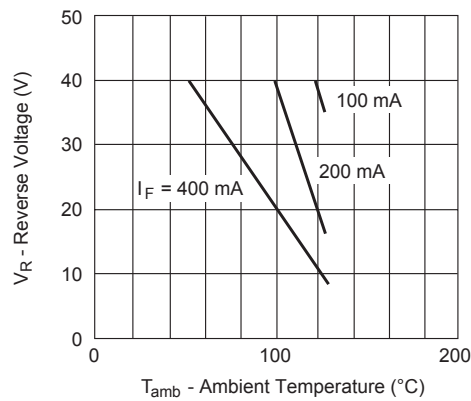Fig. 4 - Typical Capacitance vs. Reverse Voltage

Fig. 5 - Blocking Voltage Deration vs. Temperature at Various Average Forward Currents
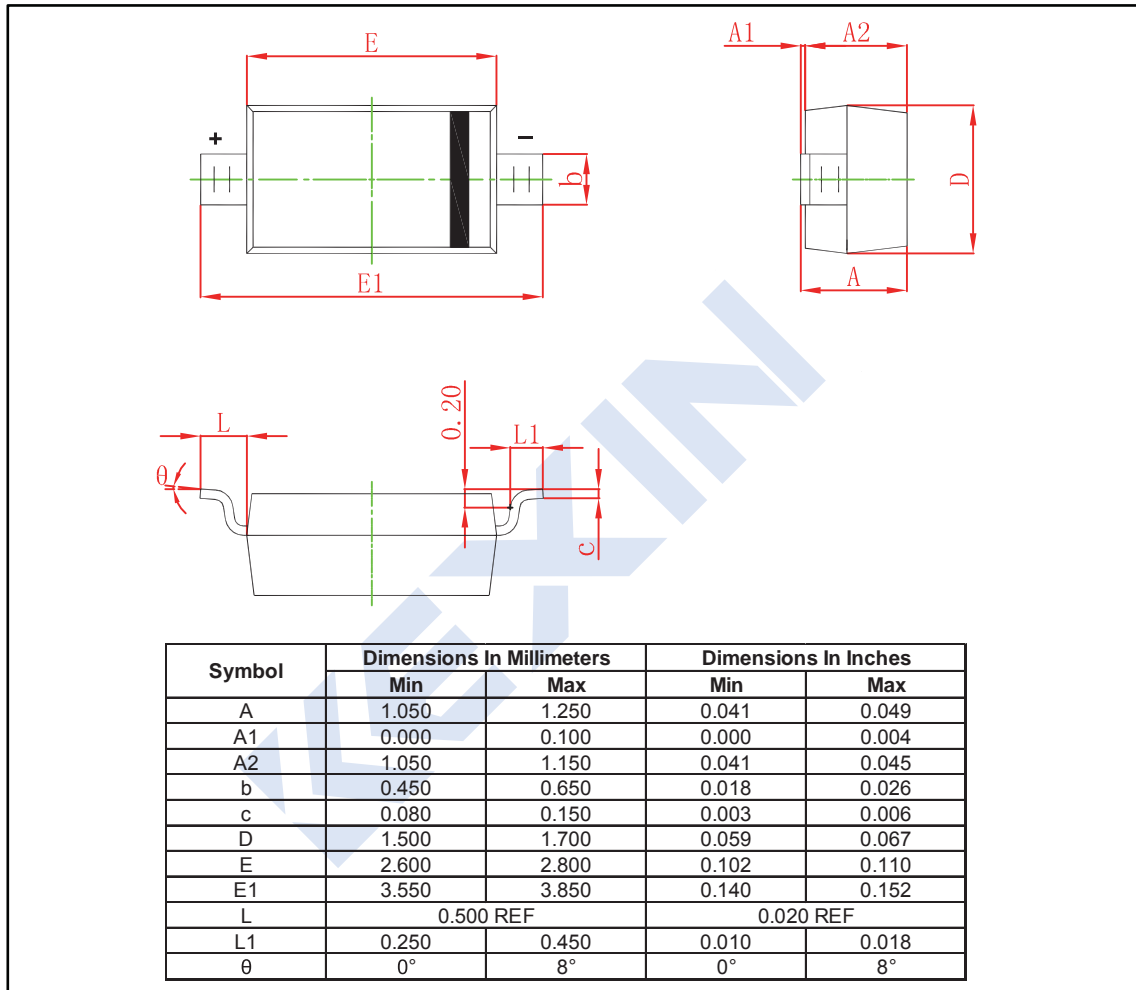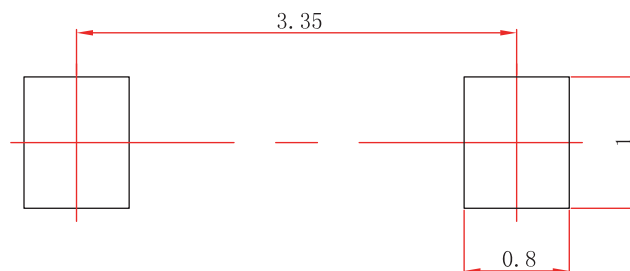
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■ Package Outline Dimensions

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.