

Features

- ◇ 350 W (8/20 μ s) Peak Pulse Power
- ◇ Low Capacitance ESD Protection ◇
- SOD-523 Package
- ◇ RoHS Compliant
- ◇ Matte Tin Lead finish (Pb-Free)
- ◇ Protect One High Speed Data Line ◇

Meet IEC61000-4-2 Level 4:

Contact Discharge > 30 kV

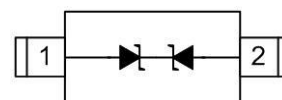
Air Discharge > 30 kV

Applications

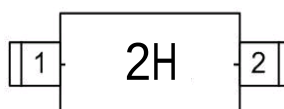
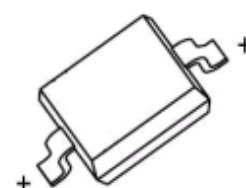
- ◇ Communication System
- ◇ Portable Instrumentation
- ◇ Audio and Video Equipment
- ◇ Computers and Peripherals
- ◇ USB 1.1, USB 1.0 Ports

Circuit Diagram

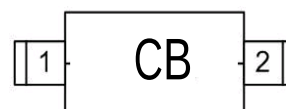
PIN Diagram



SOD-323



2H= Device Code



Mayking

CB= Device Code

Ordering information

Device	Package	Reel Size	Qty / Reel
SD24C.TCT	SOD-323	7 inch	3000

Maximum Ratings (Ta = 25°C)

Symbol	Parameter	Value	Unit
PPK	Peak Pulse Power	350	W
IPP	Peak Pulse Current	6	A
VESD (Contact)	Contact ESD Voltage per IEC61000-4-2	30	kV
VESD (Air)	Air ESD Voltage per IEC61000-4-2	30	kV
TJ	Junction Temperature	-55 to +150	°C
TSTG	Storage Temperature	-55 to +150	°C

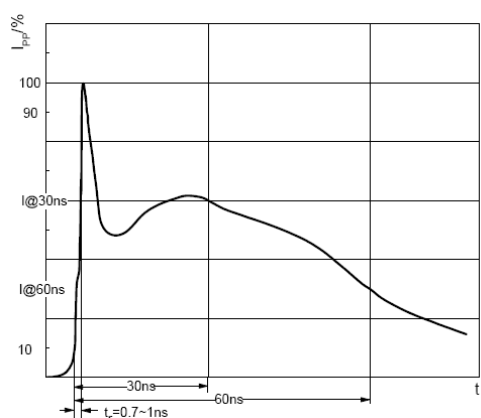
ESD standards compliance

IEC61000-4-2 Standard

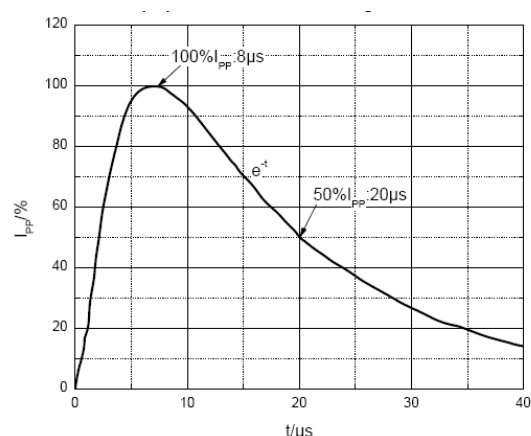
Contact Discharge		Air Discharge	
Level	Test Voltage kV	Level	Test Voltage kV
1	2	1	2
2	4	2	4
3	6	3	8
4	8	4	15

JESD22-A114-B Standard

ESD Class	Human Body Discharge V
0	0~249
1A	250~499
1B	500~999
1C	1000~1999
2	2000~3999
3A	4000~7999
3B	8000~15999



ESD pulse waveform according to IEC61000-4-2

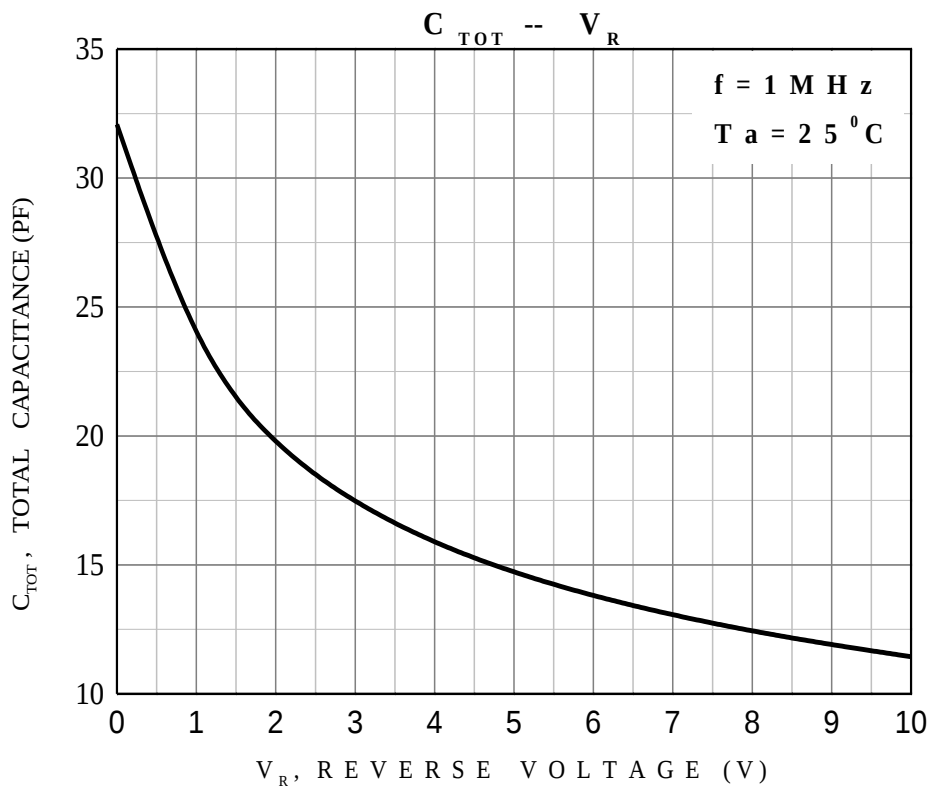
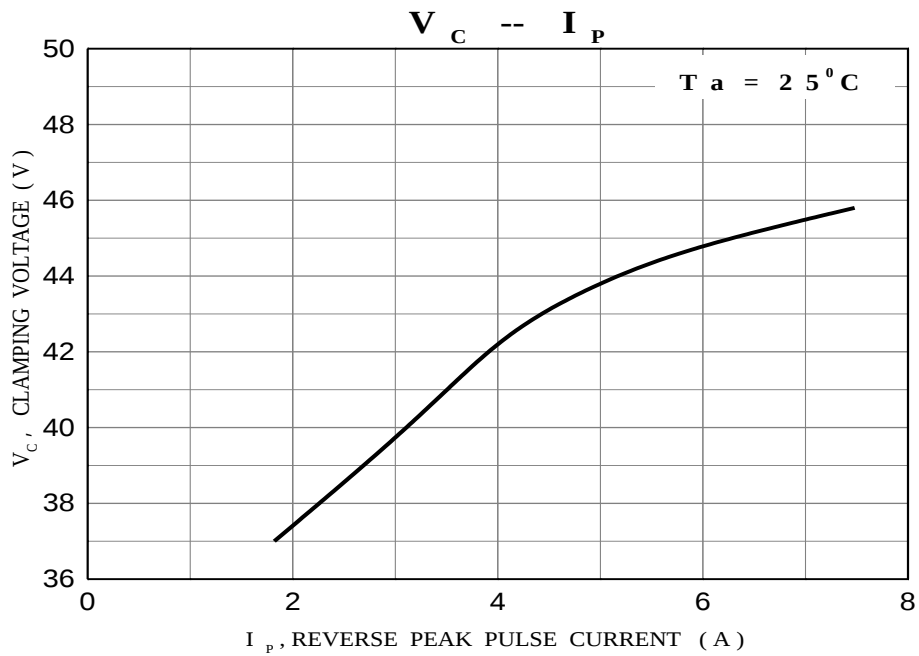


8/20μs pulse waveform according to IEC 61000-4-5

Electrical Characteristics (Ta = 25℃)

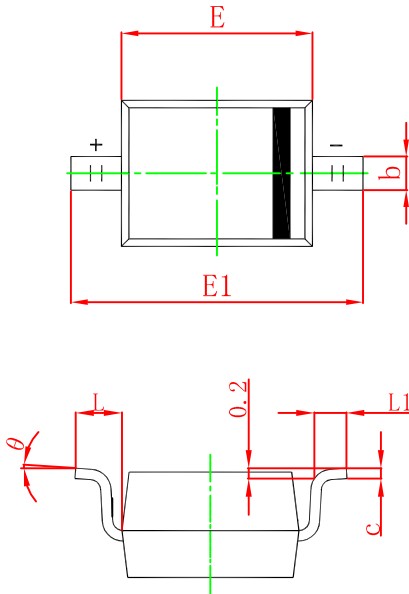
Symbol	Parameter	Conditions	Min	Typ	Max	Unit
VRWM	Reverse Working Peak Voltage				24	V
VBR	Reverse Breakdown Voltage	IT = 1mA	26	28.5	33	V
IR	Reverse Leakage Current	VRWM = 24V			0.5	μA
VC	Clamping Voltage	IPP = 1A (8/20μs)		34		V
VC	Clamping Voltage	IPP = 6A (8/20 μs)		40	45	V
CJ	Capacitance	VR = 0V, f = 1MHz		33	80	pF

TYPICAL CHARACTERISTICS



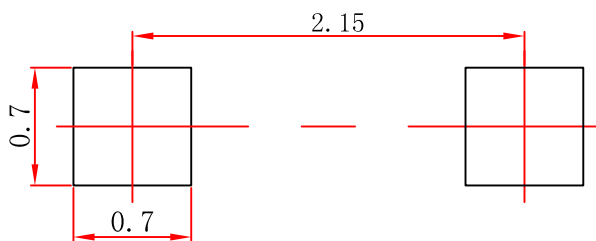
PACKAGE OUTLINE AND PAD LAYOUT INFORMATION

SOD-323 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A		1.000		0.039
A1	0.000	0.100	0.000	0.004
A2	0.800	0.900	0.031	0.035
b	0.250	0.350	0.010	0.014
c	0.080	0.150	0.003	0.006
D	1.200	1.400	0.047	0.055
E	1.600	1.800	0.063	0.071
E1	2.550	2.750	0.100	0.108
L	0.475 REF.		0.019 REF.	
L1	0.250	0.400	0.010	0.016
θ	0°		0°	

SOD-323 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.