CESD5V0D1
Transient Voltage Suppression Diode

Features

Uni-directional ESD protection of one line

Reverse stand−off voltage: 5V

Low reverse clamping voltage

Low leakage current

Excellent package:2.7mm×1.6mm×1.1mm

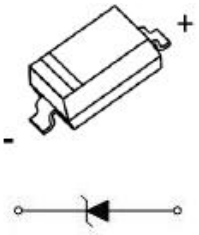
Fast response time

JESD22-A114-B ESD Rating of class 3B per human body model

IEC 61000-4-2 Level 4 ESD protection

KE

SOD-123



Application

Computers and peripherals

Audio and video equipment

Cellular handsets and accessories

Portable electronics

Other electronics equipments communi-cation systems

Absolute Maximum Rating

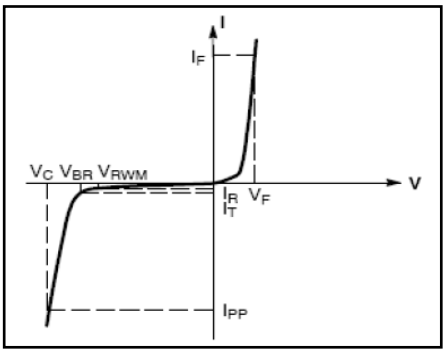
Symbol	Parameter	Value	Unit
TJ	Junction Temperature	-55 to +150	℃
TSTG	Storage Temperature	-55 to +150	℃
Ipp Max	Maximum Peak Pulse Current	14	A
PPK	Peak Pulse Power	300	W

Electrical Characteristics

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
VRWM	Reverse Working Peak Voltage				5	V
VBR	Reverse Breakdown Voltage	IT = 1mA	6	6.8	8	V
IR	Reverse Leakage Current	VRWM = 5V			1	μA
VC	Clamping Voltage					V
VC	Clamping Voltage	IPP = 20A (8/20μs)			20	V
Ipp	Peak Pulse Current	‘tp = 8/20μs			14	A
CJ	Capacitance	VR = 0V, f = 1MHz		90		pF

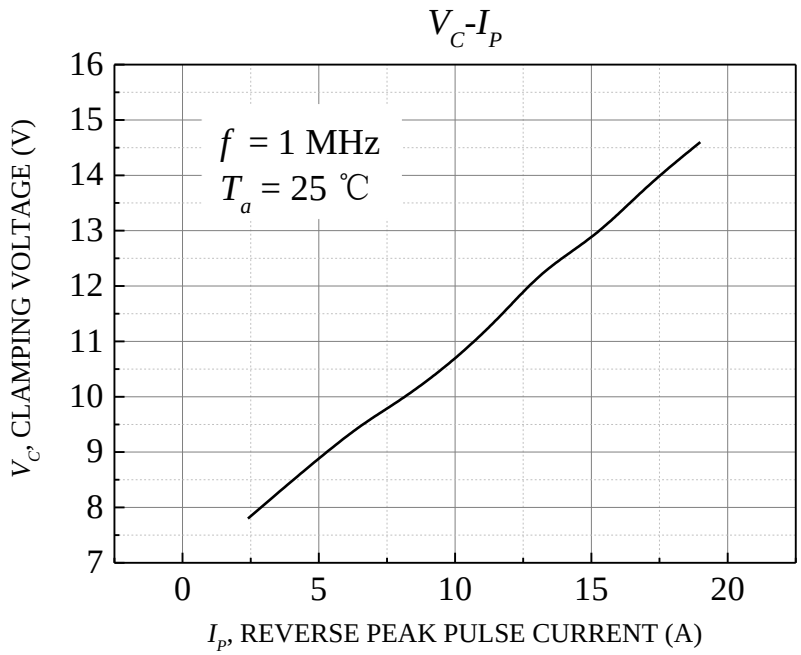
Electronics Parameter

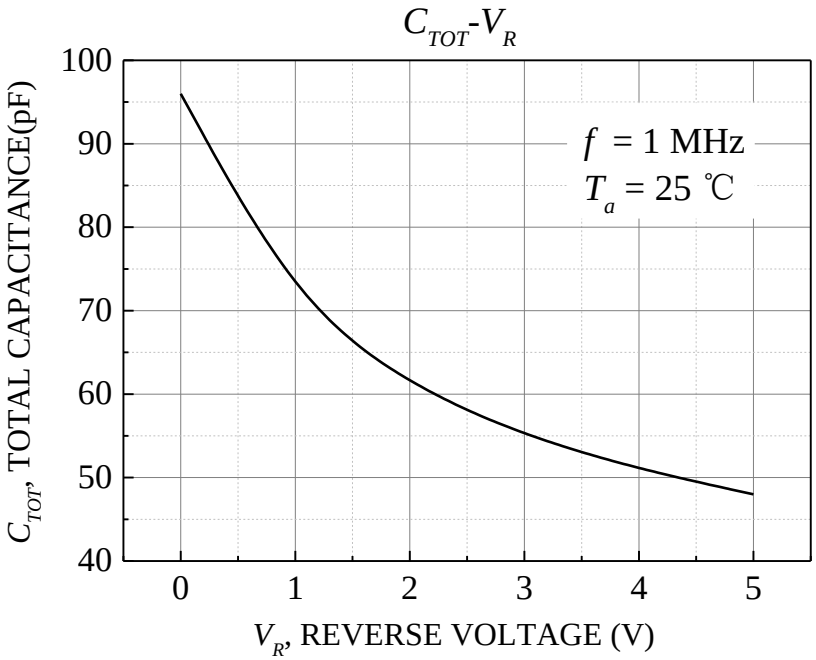
Symbol	Parameter
V_C	Clamping Voltage @ I_{PP}
I_{PP}	Peak Pulse Current
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current
I_R	Reverse Leakage Current @ V_{RWM}
V_{RWM}	Reverse Standoff Voltage
V_F	Forward Voltage@ I_F
I_F	Forward Current



V-I characteristics for a uni-directional TVS

RATING AND CHARACTERISTIC CURVES

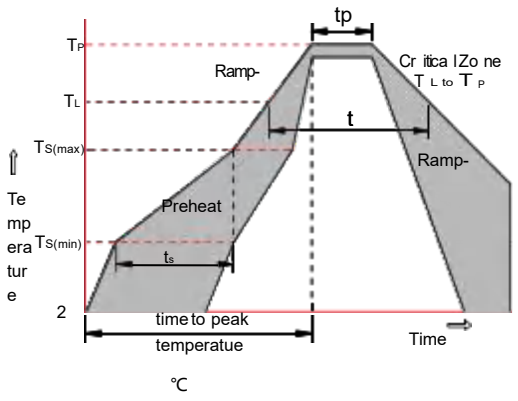




Soldering parameters

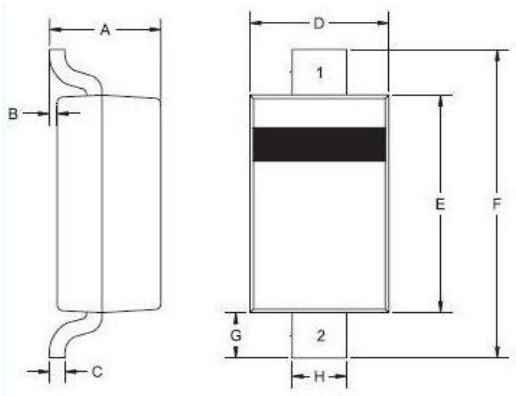
Reflow Condition		Pb-Free assembly (see as bellow)
Pre Heat	-Temperature Min ($T_{s(min)}$)	+150℃
	-Temperature Max($T_{s(max)}$)	+200℃
	-Time (Min to Max) (ts)	60-180 secs.
Average ramp up rate (Liquid us Temp (T_L) to peak)		3℃/sec. Max
$T_{s(max)}$ to T_L - Ramp-up Rate		3℃/sec. Max
Reflow	-Temperature(T_L)(Liquid us)	+217℃
	-Temperature(t_L)	60-150 secs.
Peak Temp (T_p)		+260(+0/-5)℃
Time within 5℃ of actual Peak Temp (t_p)		30 secs. Max
Ramp-down Rate		6℃/sec. Max
Time 25℃ to Peak Temp (T_P)		8 min. Max
Do not exceed		+260℃

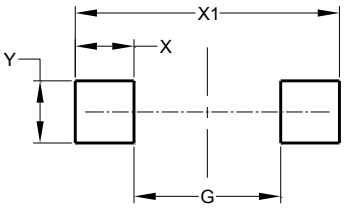
FIG5: Reflow condition



Package Dimensions & Suggested Pad Layout

SOD123



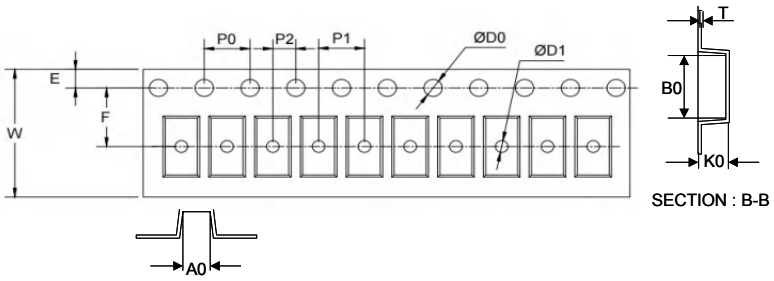


SOD123		
Dim	**Min**	**Max**
A	0.95	1.35
B	0.00	0.12
C	-	0.20
D	1.40	1.80
E	2.50	2.80
F	3.60	3.90
G	0.40	-
H	0.50	0.70
All Dimensions in mm		

Dimensions	Value (in mm)
G	2.20
X	1.20
X1	4.60
Y	1.20

Tape & rell specification

Tape

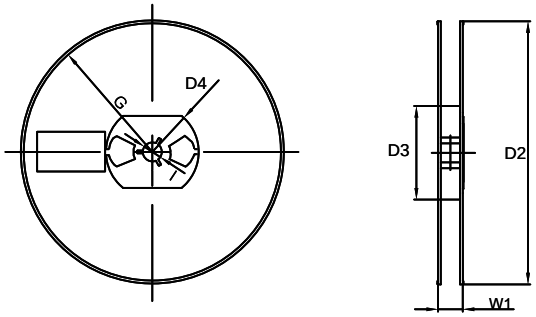


SECTION : A-A

SECTION : B-B

Symbol	Dimension (mm)
P0	4.00±0.20
P1	4.00±0.20
P2	2.00±0.20
D0	1.55±0.10
D1	1.00±0.20
E	1.75±0.20
F	3.60±0.20
W	8.00±0.40
A0	2.30±0.40
B0	4.00±0.40
K0	1.50±0.40
T	0.23±0.10

7” Reel



D2	177.0±3.0
D3	55Min.
D4	R24.0±3.0
G	R82.0±3.0
I	13.0±2.0
W1	11.0±3.0

Quantity: 3000PCS