

自主封測 品質把控 售後保障

WEB | WWW.TDSEMIC.COM



電源管理



顯示驅動



二三極管



LDO穩壓器



觸摸芯片



MOS管



運算放大器



存儲芯片



MCU



串口通信

CESD3V3D3

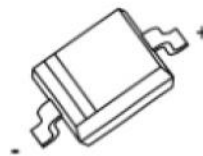
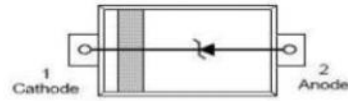
產品規格說明書

Features

- ◇ Clamping Voltage
- ◇ SOD-323 Package
- ◇ RoHS Compliant
- ◇ Matte Tin Lead finish (Pb-Free)
- ◇ Protect One I/O or Power Line
- ◇ Meet IEC61000-4-2 Level 4:
 - Contact Discharge > 30kV
 - Air Discharge > 30kV

Circuit Diagram

PIN Diagram



SOD-323

Applications

- ◇ Smart Phones
- ◇ Laptop Computers
- ◇ Portable Electronics

Ordering information

Device	Package	Reel Size	Qty / Reel
CESD3V 3D3	SOD-323	7 inch	3000

MARKING:03W

Maximum Ratings (Ta = 25°C)

Symbol	Parameter	Value	Unit
TJ	Junction Temperature	-55 to +150	°C
TSTG	Storage Temperature	-55 to +150	°C
Ipp Max	Maximum Peak Pulse Current	20	A
PPK	Peak Pulse Power	350	W

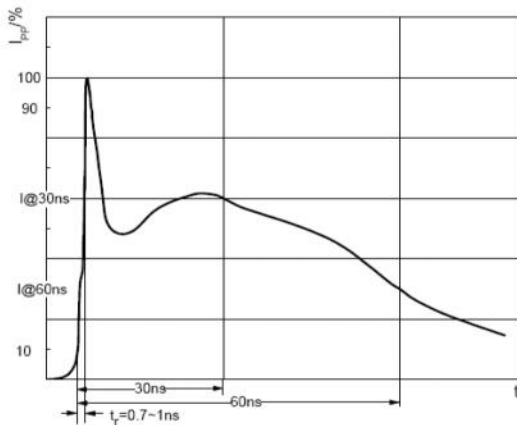
ESD standards compliance

IEC61000-4-2 Standard

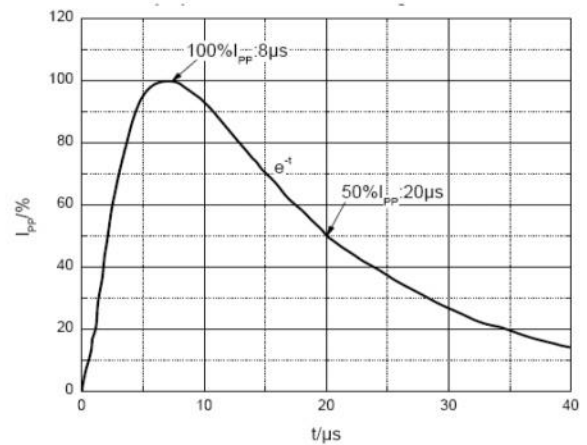
Contact Discharge		Air Discharge	
Level	Test Voltage kV	Level	Test Voltage kV
1	2	1	2
2	4	2	4
3	6	3	8
4	8	4	15

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



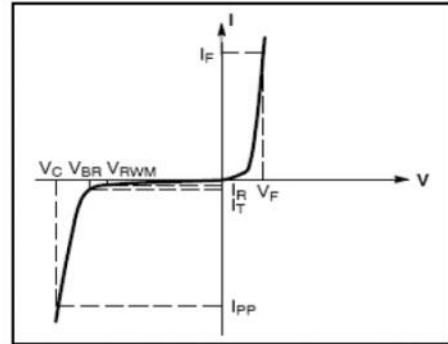
ESD pulse waveform according to IEC61000-4-2



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

ELECTRICAL 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

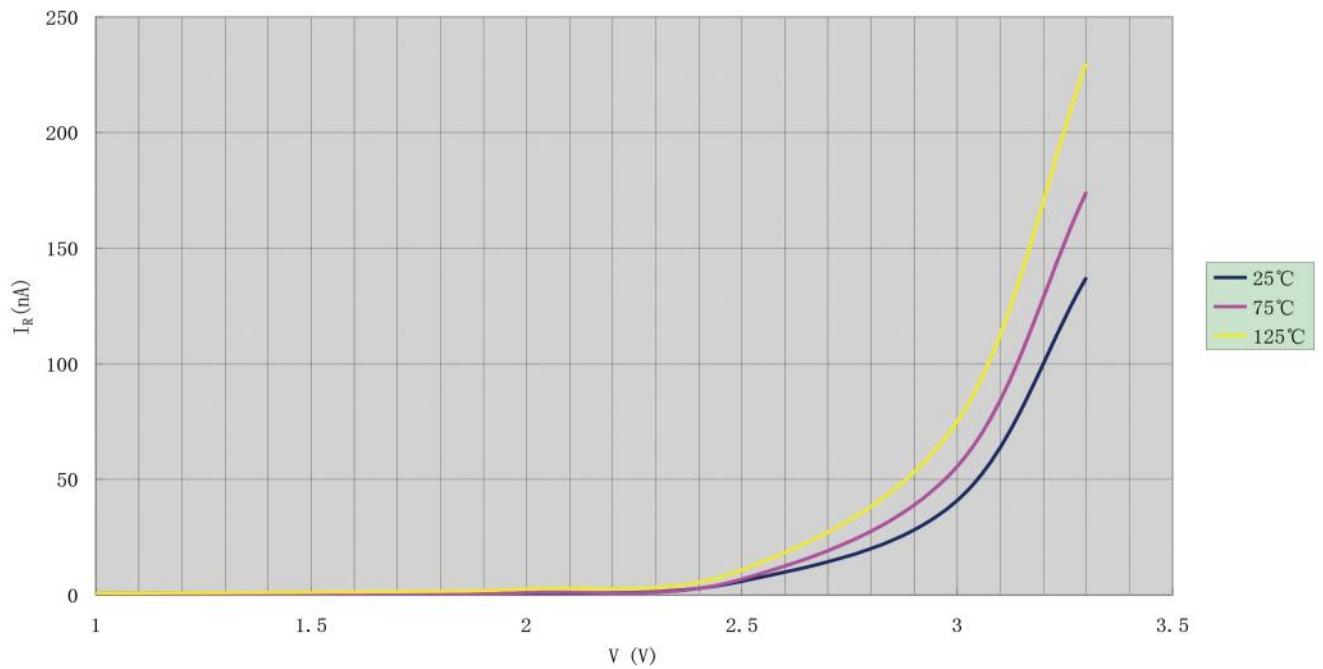
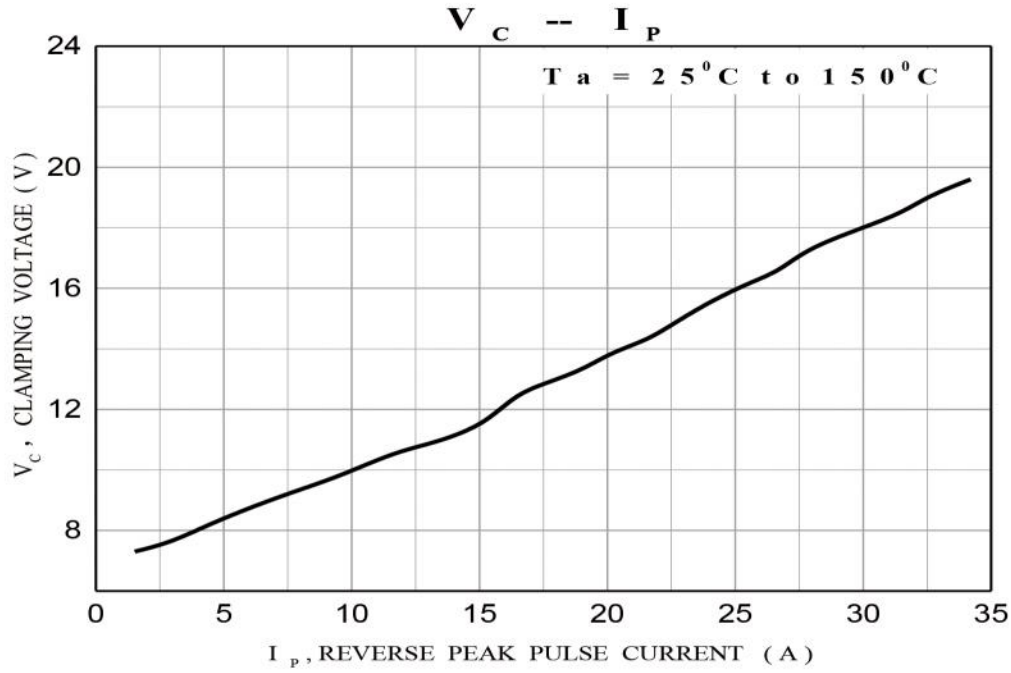


V-I characteristics for a uni-directional TVS

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

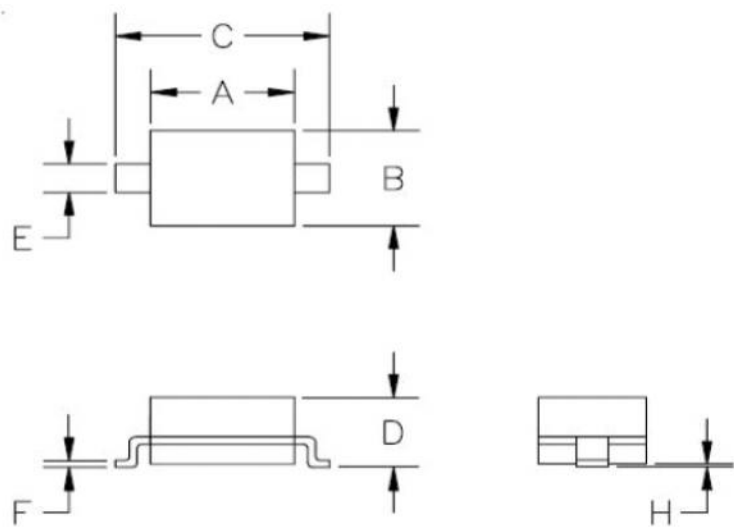
CESD3V3D3						
Symbol	Parameter	Conditions	Min	Typ	Max	Unit
VRWM	Reverse Working Peak Voltage				3.3	V
VBR	Reverse Breakdown Voltage	$I_T = 1\text{mA}$	5	5.6	6.5	V
IR	Reverse Leakage Current	$VRWM = 3.3\text{V}$			1	μA
VC	Clamping Voltage					V
VC	Clamping Voltage	$I_{PP} = 20\text{A} (8/20\mu\text{s})$		13.5	15	V
Ipp	Peak Pulse Current	$t_p = 8/20\mu\text{s}$			20	A
CJ	Capacitance	$V_R = 0\text{V}, f = 1\text{MHz}$		195	200	pF

Typical Performance Curves



SOD-323 Dimension

R



DIM ^N	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.060	.071	1.5	1.8	—
B	.045	.054	1.2	1.4	—
C	.090	.107	2.3	2.7	—
D	—	.043	—	1.1	—
E	.012	.016	0.3	0.4	—
F	.004	.010	.10	.25	—
H	—	.004	—	.10	—

[1] CONTROLLING DIMENSION: MILLIMETERS