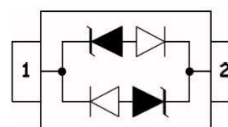
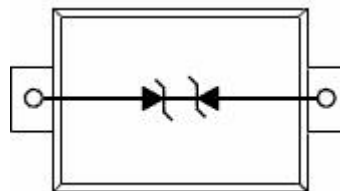
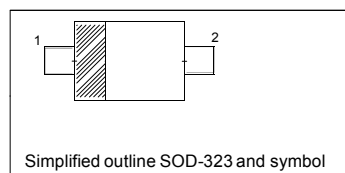


Bi-direction ESD Protection Diode

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



DESCRIPTION

Designed to protect voltage sensitive electronic components from ESD and other transients. Excellent clamping capability, low leakage, low capacitance, and fast response time provide best in class protection on designs that are exposed to ESD.

The combination of small size, low capacitance, and high level of ESD protection makes them a flexible solution for applications such as HDMI, Display Port TM, and MDDI interfaces. It is designed to replace multiplayer varistors (MLV) in consumer

equipments applications such as mobile phone, notebook, PAD, STB, LCD TV etc. **FEATURES**

- Bi-directional ESD protection of one line
- Low capacitance: 1pF
- Low reverse stand-off voltage: 3.3V, 5V, 8V, 12V, 15V, 24V
- Low reverse clamping voltage
- Low leakage current
- Excellent package: 1.7mm × 1.3mm × 1.0mm
- Fast response time
- JESD22-A114-B ESD Rating of class 3B per human body model
- IEC 61000-4-2 Level 4 ESD protection

APPLICATIONS

- Cellular phones
- Audio and video equipment
- Handheld-Wireless Systems
- PDAs
- Ethernet – 10/100/1000 Base
- Portable electronics
- USB Interface
- Other electronics equipments communication systems

MAXIMUM RATINGS T =25°C unless otherwise noted

Symbol	Parameter	Value	Units
V_{ESD}	ESD per IEC 61000-4-2 (Air)	±20	kV
	ESD per IEC 61000-4-2 (Contact)	±20	
P_{PP}	Peak Pulse Power (8/20μs)	350	W
T_{OPT}	Operating Temperature	-55/+150	°C
T_{STG}	Storage Temperature	-55/+150	°C
T_L	Lead Soldering Temperature	260	°C

ESD standards compliance

IEC61000-4-2 Standard

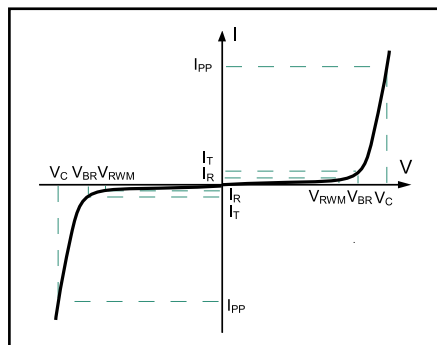
Contact Discharge		Air Discharge	
Level	Test Voltage kV	Level	Test Voltage kV
1	2	1	2
2	4	2	4
3	6	3	8
4	8	4	15

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

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



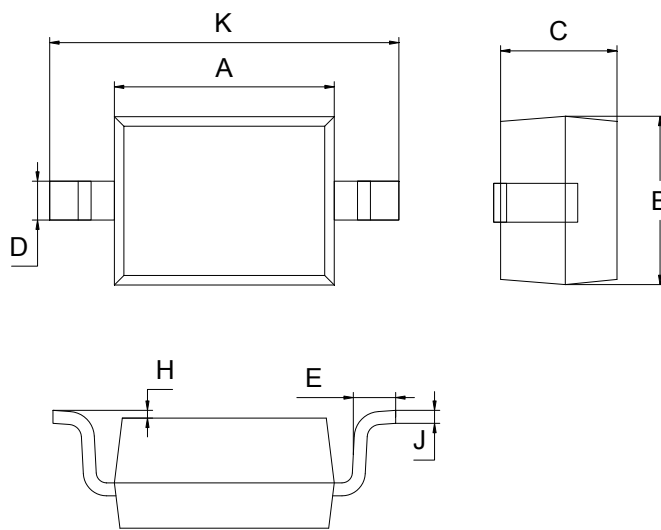
V-I characteristics for a Bi-directional TVS

ELECTRICAL CHARACTERISTICS($T_a=25^{\circ}\text{C}$ unless otherwise specified)

PART	DEVICE MARKING	V_{RWM} (V) (max.)	V_B (V) (min.)	I_T (mA)	$V_C@1A$ (V) (max.)	V_C (V) (max.) (@A)	I_R (μA) (max.)	C (pF) (typ.)
UDD32C03L01	CC	3.3	4.0	1	7.0	15 20	1	1
UDD32C05L01	AC	5.0	6.0	1	9.8	20 20	1	1
UDD32C08L01	BC	8.0	8.5	1	13.4	25 15	1	1
UDD32C12L01	DC	12.0	13.3	1	19.0	30 8	1	1
UDD32C15L01	EC	15.0	16.7	1	24.0	40 6	1	1
UDD32C24L01	HC	24.0	26.7	1	43.0	60 3	1	1

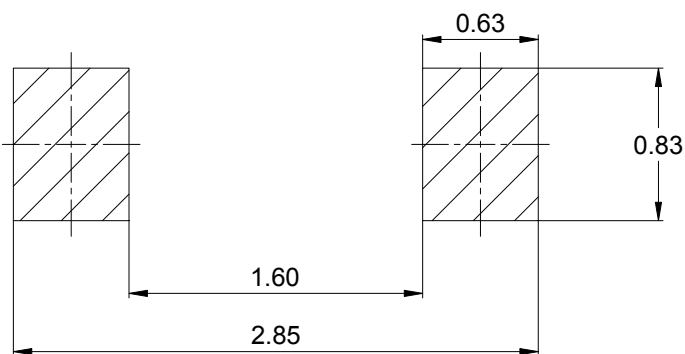
Plastic surface mounted package

SOD-323



SOD-323		
Dim	Min	Max
A	1.60	1.80
B	1.20	1.40
C	0.80	0.90
D	0.25	0.35
E	0.22	0.42
H	0.02	0.1
J	0.05	0.15
K	2.55	2.75
All Dimensions in mm		

SOLDERING FOOTPRINT



Unit : mm