DESCRIPTION

The ESD4.5D3HV is available in SOD-323 package.

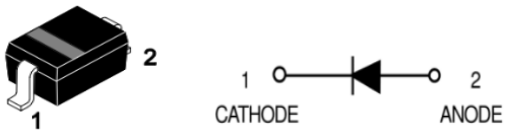
FEATURE

- Uni-directional ESD protection of one line
- Reverse stand−off voltage: 4.5V
- Low reverse clamping voltage
- Low leakage current
- Fast response time
- IEC 61000-4-2 Level 4 ESD protection

ORDERING INFORMATION

Package Type	Part Number
SOD-323	ESD4.5D3HV
Note	SPQ: 3,000pcs/Reel
AiT provides all RoHS Compliant Products	

PIN DESCRIPTION



PIN#	DESCRIPTION
1	CATHODE
2	ANODE

ABSOLUTE MAXIMUM RATINGS

T_A = 25°C, unless otherwise noted.

V_{ESD}(1)	IEC 61000-4-2 ESD Voltage	Air Model	±30kV
		Contact Model	±30kV
	JESD22-A114-B ESD Voltage	Per Human Body Model	±20kV
	ESD Voltage	Machine Model	±0.4kV
P_{PP}(2), Peak Pulse Power			1400W
I_{PP}(2), Peak Pulse Current			100A
T_L, Lead Solder Temperature − Maximum (10 Second Duration)			260℃
T_J, Junction Temperature Range			150℃
T_{STG}, Storage Temperature Range			-55℃~+150℃

1. Device stressed with ten non-repetitive ESD pulses.

2. Non-repetitive current pulse 8/20μs exponential decay waveform according to IEC61000-4-5.

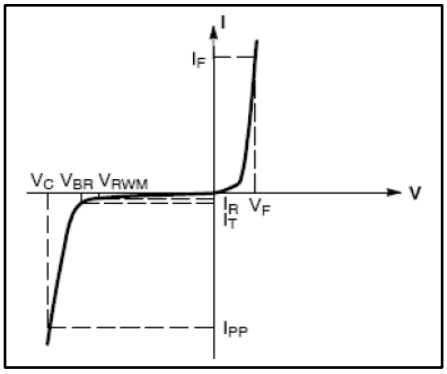
Stresses above may cause permanent damage to the device. These are stress ratings only and functional operation of the device at these or any other conditions beyond those indicated in the Electrical Characteristics are not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.

ELECTRICAL CHARACTERISTICS

T_A = 25°C, unless otherwise noted.

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Reverse stand off voltage	V_{RWM}(1)		-	-	4.5	V
Reverse leakage current	I_R	V_{RWM}=4.5V	-	-	1	μA
Breakdown voltage	$V_{(BR)}$	I_T=1mA	4.8	-	7.3	V
Clamping voltage	V_C(2)	I_{PP}=100A	-	-	15	V
Forward voltage	V_F	I_F=10mA	-	-	3.9	V
Junction capacitance	C_J	V_R=0V,f=1MHz	-	850	-	pF

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



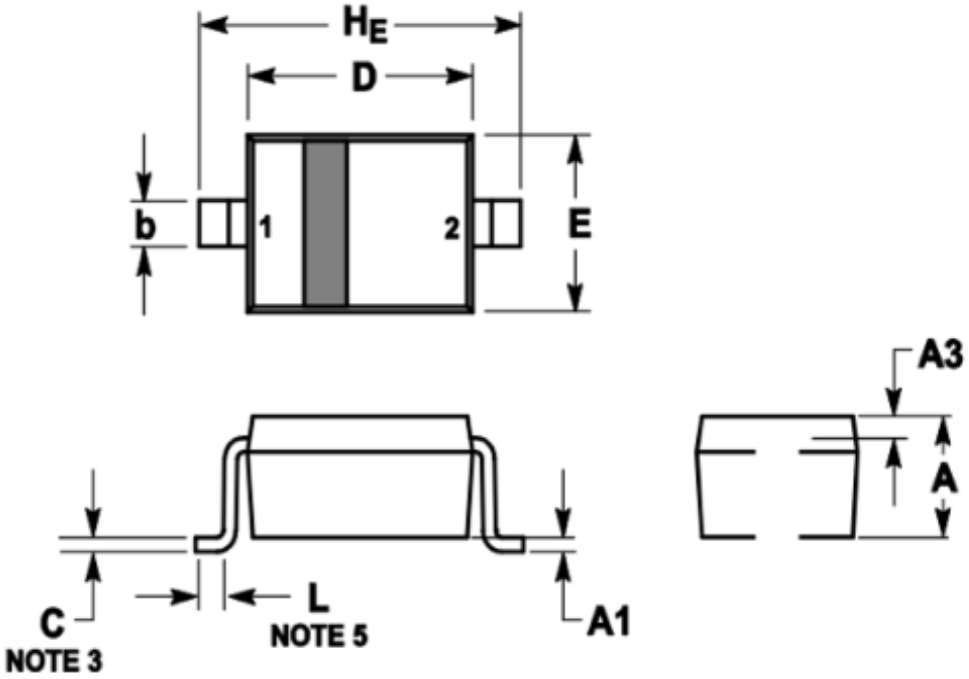
V-I characteristics for a uni-directional TVS

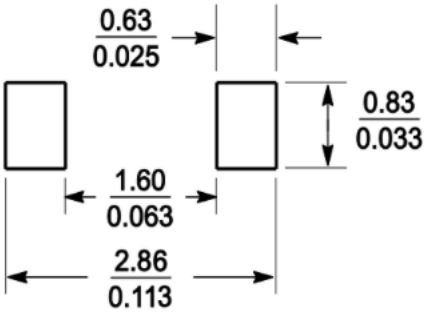
(1).Other voltages available upon request.

(2).Non-repetitive current pulse 8/20μs exponential decay waveform according to IEC61000-4-5

PACKAGE INFORMATION

Dimension in SOD-323 Package (Unit: mm)





SOLDERING FOOTPRINT

SYMBOL	MIN	MAX
A	0.8	1
A1	0	0.1
A3	0.15REF	
b	0.25	0.4
C	0.089	0.177
D	1.6	1.8
E	1.15	1.35
L	0.08	-
T_E	2.3	2.7

IMPORTANT NOTICE

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