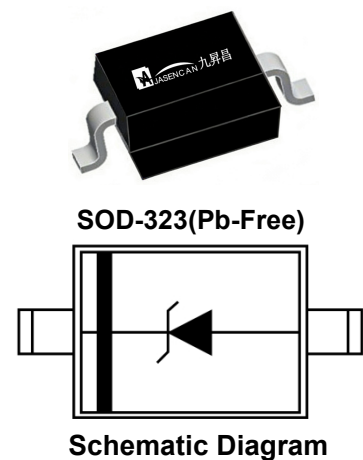


General Description

The JS5VH3DU is designed to protect voltage sensitive components from damage or latch-up due to surge current. Excellent clamping capability, low leakage, and fast response time provide best in class protection on designs that are exposed to surge current protection for board level. Because of its small size and uni-directional design, it is ideal for use in cellular phones and portable applications that require audio line protection.

Specification Features

- Small Body Outline Dimensions: nom 0.066" x 0.049" (1.7x1.25mm)
- Low Clamping Voltage $V_C=16V@I_{PP}=130A$
- Reverse Working (Stand-off) Voltage:5V
- Low Leakage
- Response Time is Typically < 1 ns
- IEC61000-4-2 Level 4 ESD Protection



Application

- Mobile Internet Devices (MID), PAD and portable devices
- TVs, Peripherals and monitors
- Set-top boxes, game consoles and accessories



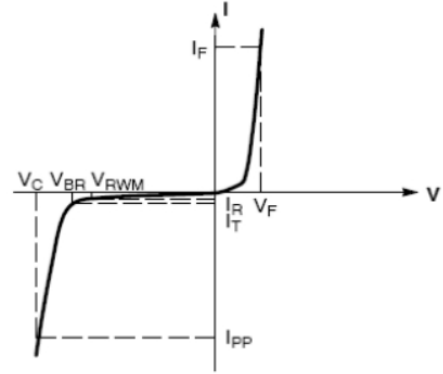
Maximum Ratings

Rating	Symbol	Value	Unit
ESD according to IEC61000-4-2 air discharge	V_{ESD}	± 30	kV
ESD according to IEC61000-4-2 contact discharge		± 30	kV
Peak Power Per 8 x 20 μ s Waveform	P_{PK}	2000	W
Junction Temperature Range	T_J	-40 to +125	$^{\circ}C$
Storage Temperature Range	T_{stg}	-55 to +150	
Lead Solder Temperature – Maximum (10 Second Duration)	T_L	260	$^{\circ}C$

Unidirectional surge current protection with suitable capacitance

Electrical Characteristics($T_J = 25^\circ\text{C}$ unless otherwise specified)

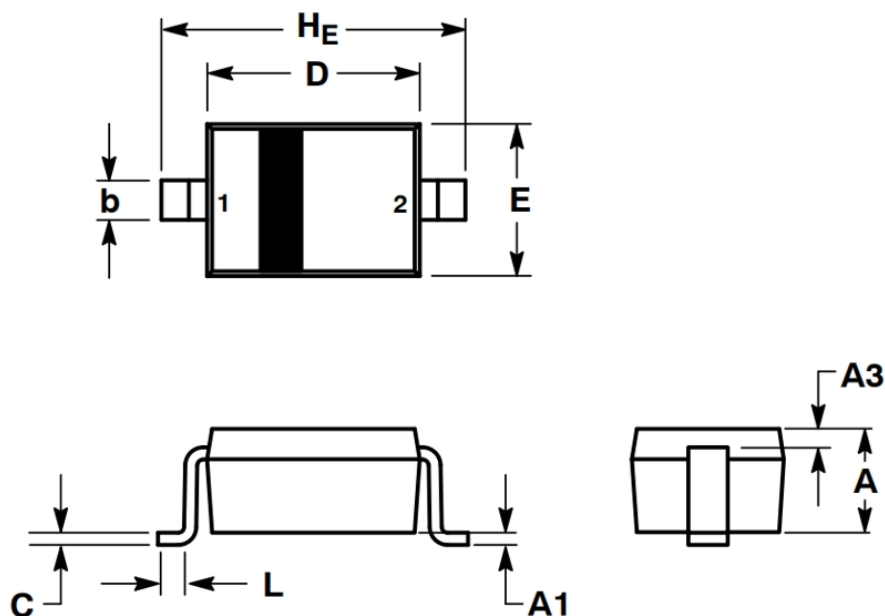
Symbol	Parameter
I_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
V_{RWM}	Working Peak Reverse Voltage
I_R	Maximum Reverse Leakage Current @ V_{RWM}
I_T	Test Current
V_{BR}	Breakdown Voltage @ I_T
P_{PK}	Peak Power Dissipation
C	Max. Capacitance @ $V_R = 0$ and freq.=1 MHz



Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Stand-off Voltage	V_{RWM}				5	V
Reverse Breakdown Voltage	V_{BR}	$I_T=1\text{mA}$	6.2		7.5	V
Reverse Leakage Current	I_R	$V_{RWM}=5\text{V}$			1	μA
Clamping Voltage	V_C	$I_{PP}=50\text{A}, t_p=8/20\mu\text{s}$			12	V
		$I_{PP}=130\text{A}, t_p=8/20\mu\text{s}$			16	
Junction Capacitance	C_J	$V_R=0\text{V}, f=1\text{MHz}$		880	1000	pF

Unidirectional surge current protection with suitable capacitance

Package Outline Dimensions



SOD-323

	Millimeters			Inches		
	Min. (mm)	Typ. (mm)	Max. (mm)	Min. (in)	Typ. (in)	Max. (in)
A	0.70	0.80	0.90	0.0276	0.0315	0.0354
A1	0.00	0.05	0.10	0.0000	0.0020	0.0039
A3	0.2REF			0.0079REF		
b	0.25	0.30	0.35	0.0098	0.0118	0.0138
C	0.10	0.15	0.20	0.0039	0.0059	0.0079
D	1.65	1.725	1.80	0.0650	0.0679	0.0709
E	1.20	1.30	1.40	0.0472	0.0512	0.0551
HE	2.50	2.60	2.70	0.0984	0.1024	0.1063
L	0.475REF			0.0187REF		

Ordering information

Device	Package	Reel	Marking	Shipping
JS5VH3DU	SOD-323 (Pb-Free)	7"		3000 / Tape & Reel

Unidirectional surge current protection with suitable capacitance

Load with information

