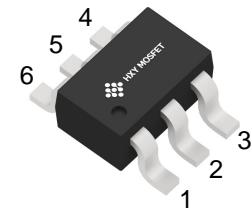




Description

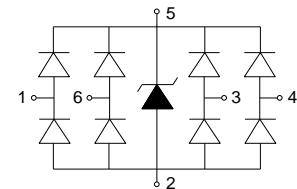
The HESDLC6VU4LI-A is a 4-channel ultra low capacitance rail clamp ESD protection diodes array. Each channel consists of a pair of ESD diodes that steer positive or negative ESD current to either the positive or negative rail. A zener diode is integrated in to the array between the positive and negative supply rails. In the typical applications, the negative rail pin (assigned as GND) is connected with system ground. The Positive ESD current is steered to the ground through an ESD diode and Zener diode and the positive ESD voltage is clamped to the zener voltage.



SOT-23-6L

Features

- ★ Protecting 4 unidirectional lines
- ★ Provides ESD protection to IEC61000-4-2 level 4
 - $\pm 25\text{kV}$ air discharge
 - $\pm 25\text{kV}$ contact discharge
- ★ Low clamping voltage
- ★ Low operating voltage
- ★ Improved zener structure
- ★ Ultra-low capacitance: 0.75pF Typ
- ★ RoHS compliant.



Circuit Diagram

Ordering Information

Product ID	Pack	Qty(PCS)
HESDLC6VU4LI-A	SOT-23-6L	3000

Absolute Ratings($T_{amb} = 25^\circ\text{C}$)

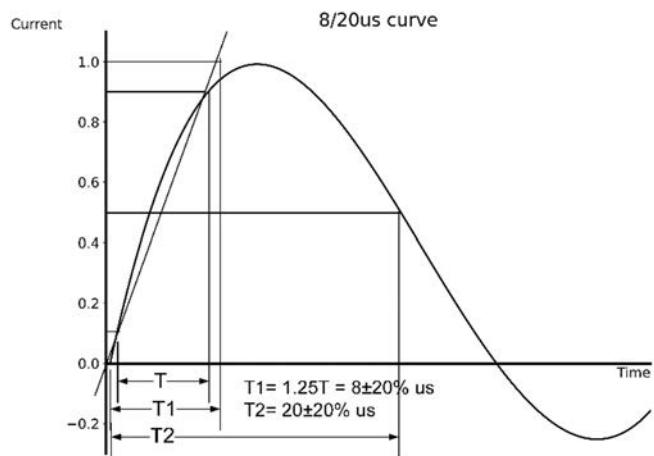
Characteristics	Symbol	Ratings	Unit
Peak Pulse Power($8/20\mu\text{s}$)	P_{PP}	200	W
Peak Pulse Current($8/20\mu\text{s}$)	I_{PP}	12	A
ESD per IEC 61000-4-2(Air)	V_{ESD1}	$\pm 20\text{kV}$	kV
ESD per IEC 61000-4-2(Contact)	V_{ESD2}	$\pm 20\text{kV}$	kV
Operating Temperature Range	T_{opr}	$-55 \sim +125$	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	$-55 \sim +150$	$^\circ\text{C}$



Electrical Characteristics ($T_{amb}=25^{\circ}C$)

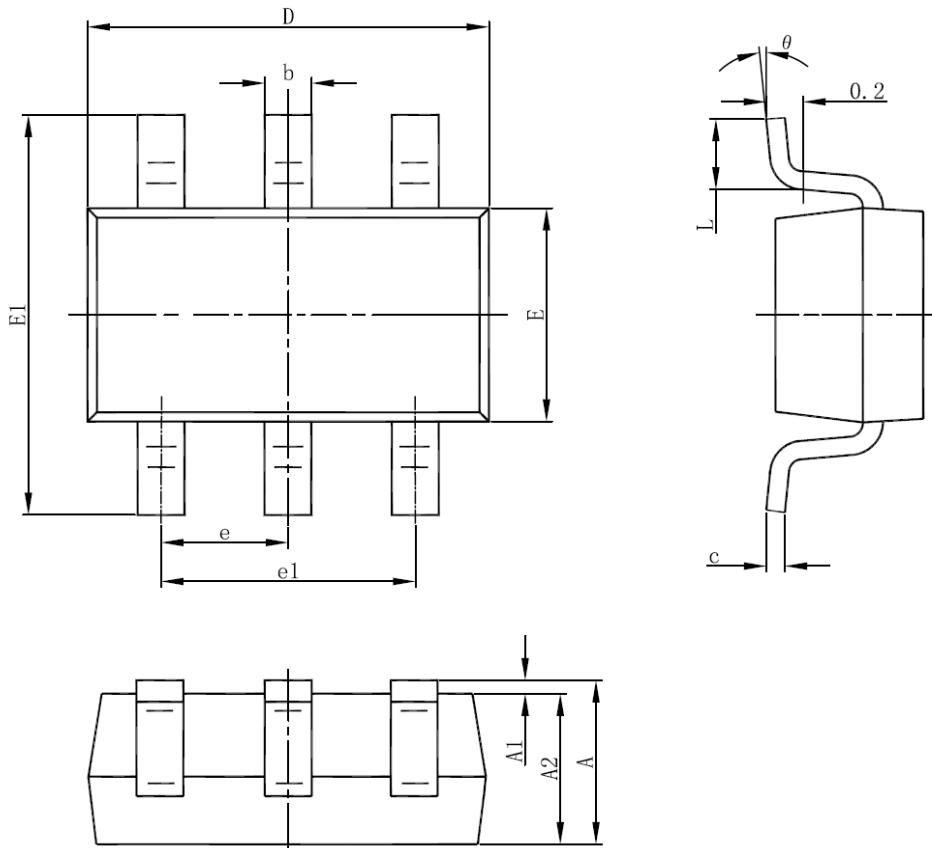
Symbol	Parameter	Test Condition	Min	Typ	Max	Units
V_{RWM}	Reverse Working Voltage				5.0	V
V_{BR}	Reverse Breakdown Voltage	$I_T = 1\text{mA}$	6.0			V
I_R	Reverse Leakage Current	$V_{RWM} = 5.0\text{V}$			1.0	μA
V_c	Clamping Voltage	$I_{PP} = 1\text{A}, t_p = 8/20\mu\text{s}$		9		V
		$I_{PP} = 5.5\text{A}, t_p = 8/20\mu\text{s}$		16		V
C_J	Junction Capacitance	$V_R = 0\text{V}, f = 1\text{MHz}$ Any I/O pin to GND		1.5		pF
C_J	Junction Capacitance	$V_R = 0\text{V}, f = 1\text{MHz}$ Any I/O pin to I/O		0.75		pF

Typical Characteristics





SOT-23-6L Package Information



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.050	1.250	0.041	0.049
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.041	0.045
b	0.300	0.500	0.012	0.020
c	0.100	0.200	0.004	0.008
D	2.820	3.020	0.111	0.119
E	1.500	1.700	0.059	0.067
E1	2.650	2.950	0.104	0.116
e	0.950(BSC)		0.037(BSC)	
e1	1.800	2.000	0.071	0.079
L	0.300	0.600	0.012	0.024
θ	0°	8°	0°	8°



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