

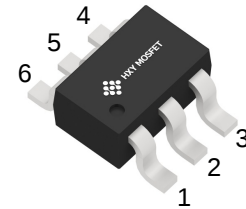


Discription

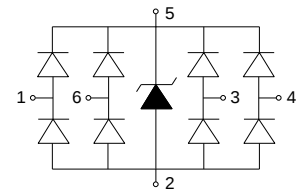
The HESDUC5VU4LI-A is designed to protect voltage sensitive components from ESD and transient voltage events. Excellent clamping capability, low leakage, and fast response time, make these parts ideal for ESD protection on designs where board space is at a premium.

Features

- ★ IEC 61000-4-2 Level 4 ESD Protection
 - $\pm 20\text{kV}$ air discharge
 - $\pm 20\text{kV}$ contact discharge
- ★ 80W Peak pulse Power (8/20us)
- ★ Low clamping voltage
- ★ Working voltage: 5V
- ★ Low leakage current
- ★ RoHS compliant
- ★ Protecting 4 unidirectional lines
- ★ Ultra-low capacitance: 0.8pF Typ.



SOT-23-6L



Circuit Diagram

Applications

- ★ USB 2.0
- ★ Monitors and flat panel displays
- ★ 10/100/1000 ethernet
- ★ Notebook computers
- ★ SIM ports
- ★ ATM interface

Ordering Information

Product ID	Pack	Qty(PCS)
HESDUC5VU4LI-A	SOT-23-6L	3000

Absolute Ratings(Tamb = 25°C)

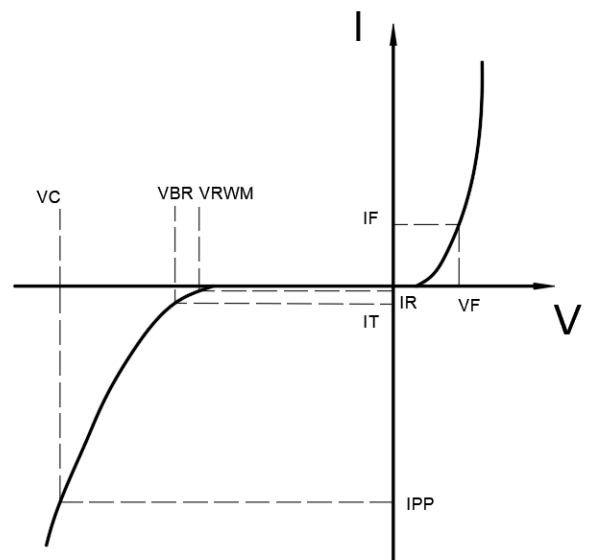
Characteristics	Symbol	Ratings	Unit
Peak Pulse Power(8/20μs)	P _{PP}	80	W
Peak Pulse Current(8/20μs)	I _{PP}	5.5	A
ESD per IEC 61000-4-2(Air)	V _{ESD1}	±20kV	kV
ESD per IEC 61000-4-2(Contact)	V _{ESD2}	±20kV	kV
Operating Temperature Range	T _{opr}	-40 ~ +125	°C
Storage Temperature Range	T _{stg}	-55 ~ +150	°C
Junction temperature	T _J	150	°C
Lead temperature	T _L	260	°C



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

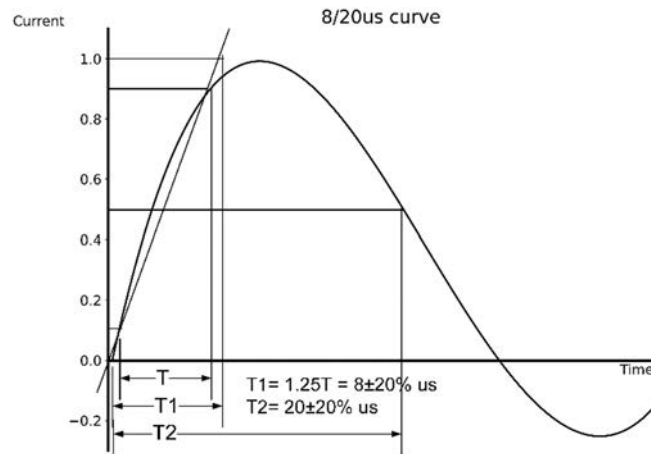
Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Stand-off Voltage	V_{RWM}				5	V
Reverse Breakdown Voltage	V_{BR}	$I_T=1mA$	6			V
Reverse Leakage Current	I_R	$V_{RWM}=5V$			1	μA
Clamping Voltage	V_C	$I_{PP}=1A$; $t_p=8/20\mu s$		10		V
Clamping Voltage	V_C	$I_{PP}=5.5A$; $t_p=8/20\mu s$		16		V
Junction Capacitance	C_J	I/O to GND; $V_R=0V$; $f=1MHz$		0.8		pF
		Between I/O; $V_R=0V$; $f=1MHz$		0.4		pF

Symbol	Parameters
V_{RWM}	Peak Reverse Working Voltage
I_R	Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current
I_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
I_F	Forward Current
V_F	Forward Voltage @ I_F

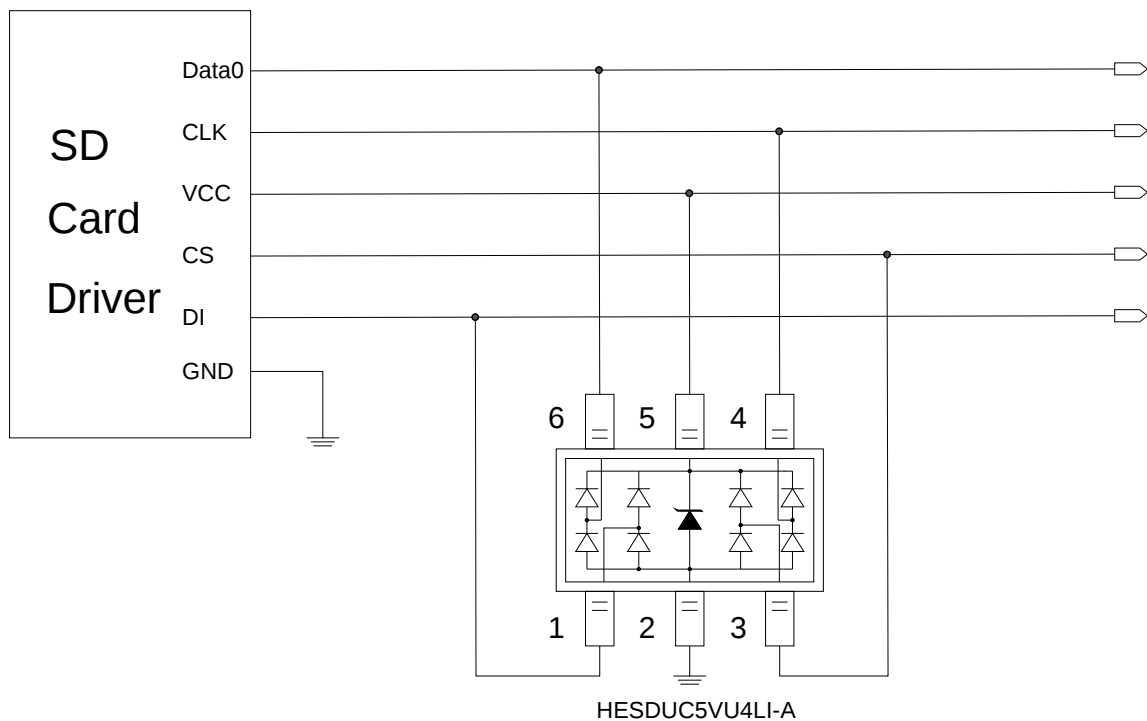




Typical Characteristics

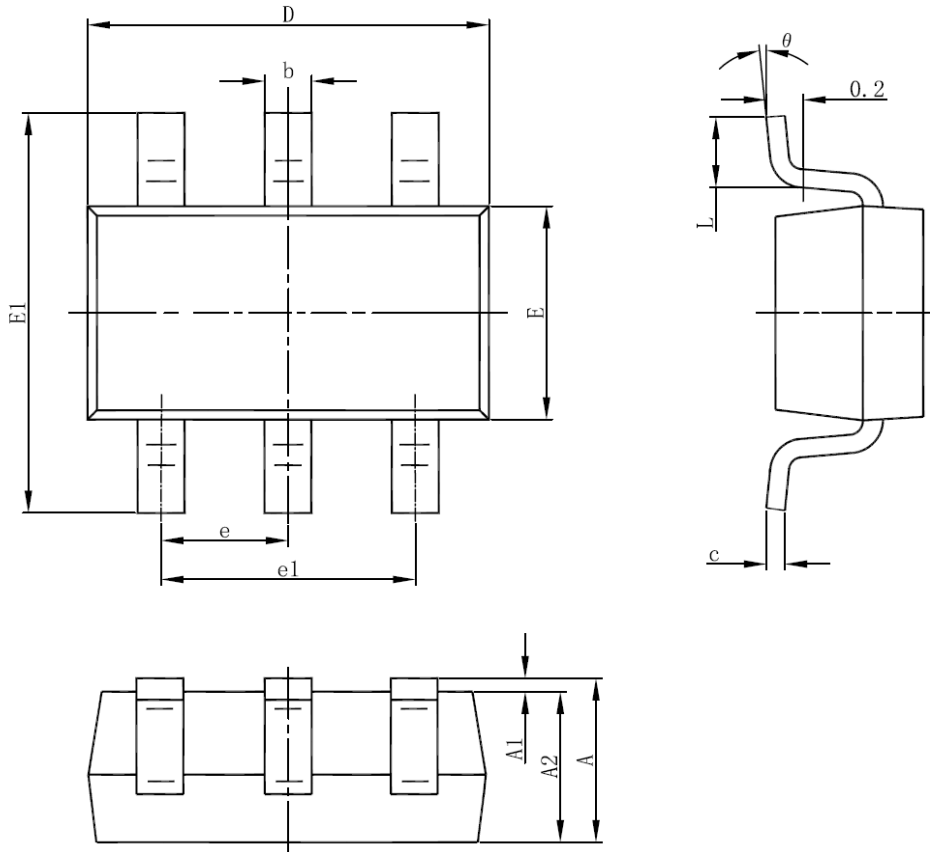


Typical Application





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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