



Discription

The HESDUC5VB1AF-D protects sensitive semiconductor components from damage or upset due to electrostatic discharge (ESD) and other voltage induced transient events. Excellent clamping capability, low leakage, low capacitance, and fast response time provide best in class protection on designs that are exposed to ESD.

It gives designer the flexibility to protect one bi-directional line in applications where arrays are not practical.



DFN1006-2L

Features

- ★ Small Body Outline Dimensions
- ★ Low Body Height
- ★ Peak Power up to 75 Watts @ 8 x 20 μ s Pulse
- ★ Low Leakage current
- ★ Response Time is Typically < 1 ns
- ★ ESD Rating of Class 3 per Human Body Model



Circuit Diagram

Ordering Information

Product ID	Pack	Qty(PCS)
HESDUC5VB1AF-D	DFN1006-2L	10000

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

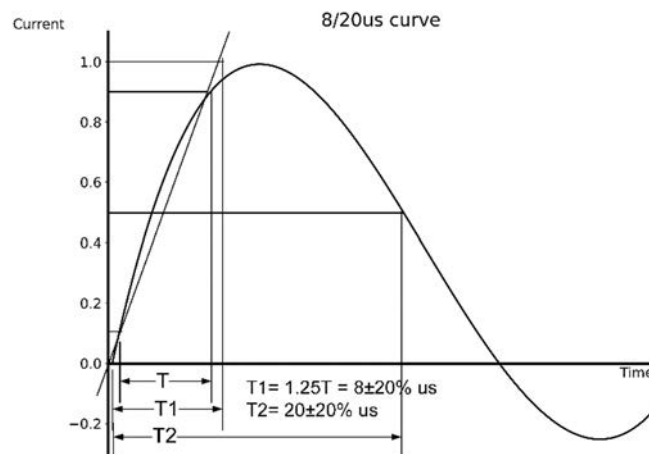
Symbol	Parameter	Value	Units
P_{PP}	Peak Pulse Power ($t_p = 8/20 \mu s$)	75	W
T_L	Maximum lead temperature for soldering during 10s	260	$^{\circ}\text{C}$
T_{stg}	Storage Temperature Range	-55 to +150	$^{\circ}\text{C}$
T_{op}	Operating Temperature Range	-55 to +150	$^{\circ}\text{C}$
T_j	Maximum junction temperature	150	$^{\circ}\text{C}$
	IEC61000-4-2 (ESD) air discharge	± 25	KV
	contact discharge	± 25	
	IEC61000-4-4 (EFT)	40	A



Electrical Characteristics

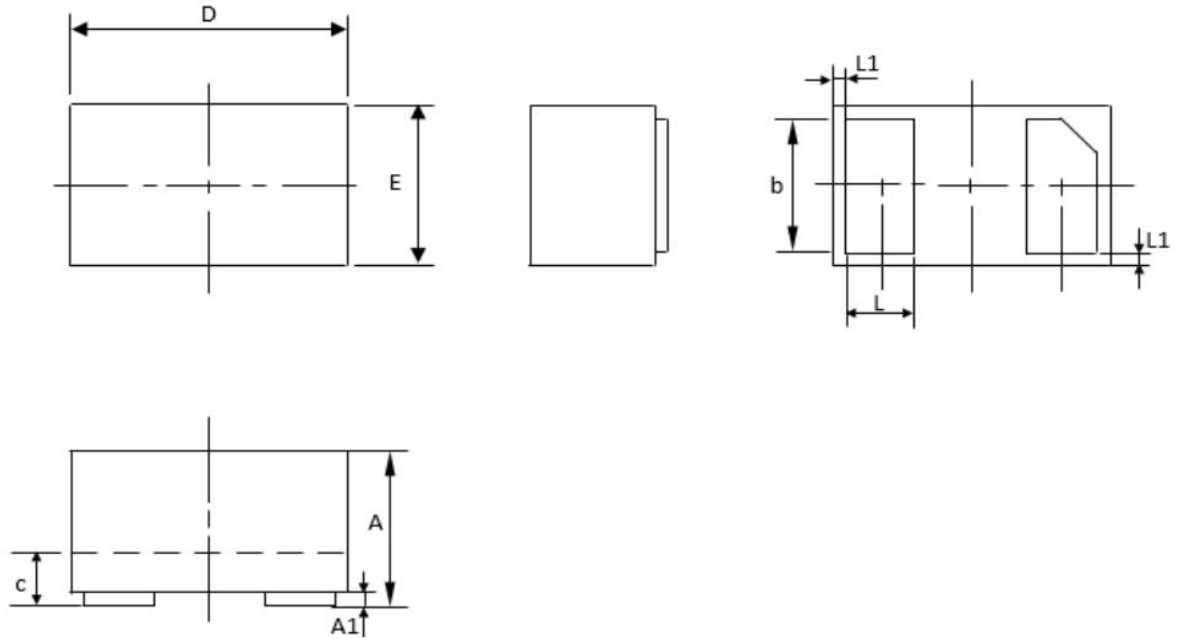
Symbol	Parameter	Test Condition	Min	Typ	Max	Units
V_{RWM}	Reverse Working Voltage				5.0	V
V_{BR}	Reverse Breakdown Voltage	$I_T = 1mA$	6.0			V
I_R	Reverse Leakage Current	$V_{RWM} = 5.0V$			1.0	μA
V_C	Clamping Voltage	$I_{PP} = 1A, t_p = 8/20\mu s$		10		V
		$I_{PP} = 4.5A, t_p = 8/20\mu s$		15		V
C_J	Junction Capacitance	$V_R = 0V, f = 1MHz$		0.38		pF

Typical Characteristics





Outline And Dimensions



DFN1006-2L			
Dim	Min	Typ.	Max
A	0.46	0.48	0.50
A1	0	0.02	0.05
b	0.45	0.5	0.55
c	0.1	0.12	0.14
D	0.95	1.00	1.05
E	0.55	0.60	0.65
L	0.20	0.25	0.30
L1	0.035	0.05	0.065
h	0.07	0.12	0.17
All Dimensions in mm			



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