Discription

The HESDLC36VB1AF-A 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

★ IEC 61000-4-2 Level 4 ESD Protection
- ±8kV Contact Discharge
- ±15kV Air Discharge

★ 180W Peak pulse Power (8/20us)
★ Low clamping voltage
★ Working voltage: 36V
★ Low leakage current
★ RoHS compliant
★ Protecting one bi-directional lines

Circuit Diagram

Ordering information

Product ID	Pack	Qty(PCS)
HESDLC36VB1AF-A	DFN1006-2L	10000

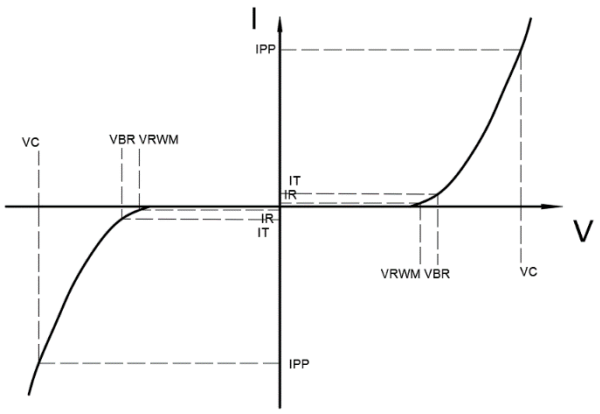
Absolute Ratings(Tamb = 25°C)

Symbol	Parameter	Value	Units
P_{PP}	Peak Pulse Power (t_p = 8/20 μ s)	180	W
T_L	Maximum lead temperature for soldering during 10s	260	°C
T_{stg}	Storage Temperature Range	-55 to +150	°C
T_{op}	Operating Temperature Range	-55 to +150	°C
T_j	Maximum junction temperature	150	°C
	IEC61000-4-2 (ESD) air discharge contact discharge	±15 ±8	KV

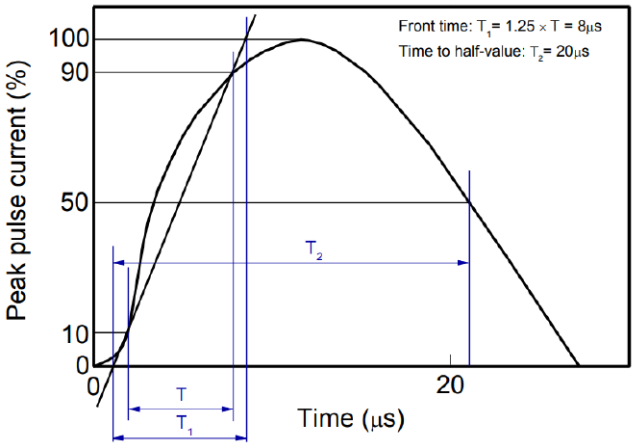
Electrical Characteristics Ratings at 25°C

Symbol	Parameter	Test Condition	Min	Typ	Max	Units
V_{RWM}	Reverse Working Voltage				36	V
V_{BR}	Reverse Breakdown Voltage	I_T = 1mA	38			V
I_R	Reverse Leakage Current	V_{RWM} = 36V			1	nA
V_C	Clamping Voltage	I_{PP} = 1A, t_p = 8/20μs		48	58	V
		I_{PP} = 3A, t_p = 8/20μs		55	70	V
C_J	Junction Capacitance	V_R = 0V, f = 1MHz		15	25	pF

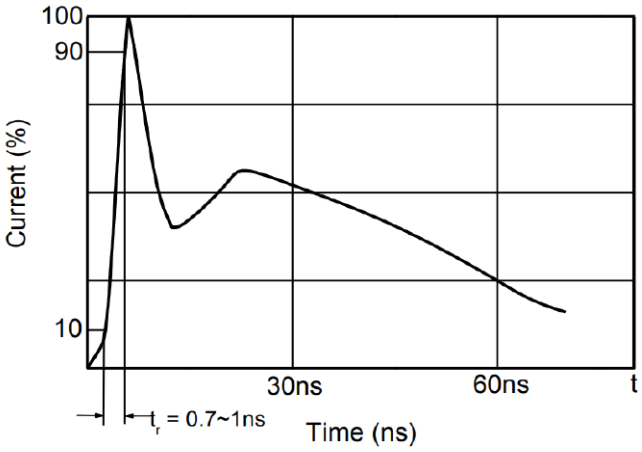
Symbol	Parameters
V_{RWM}	Peak Reverse Working Voltage
I_R	Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current
I_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}



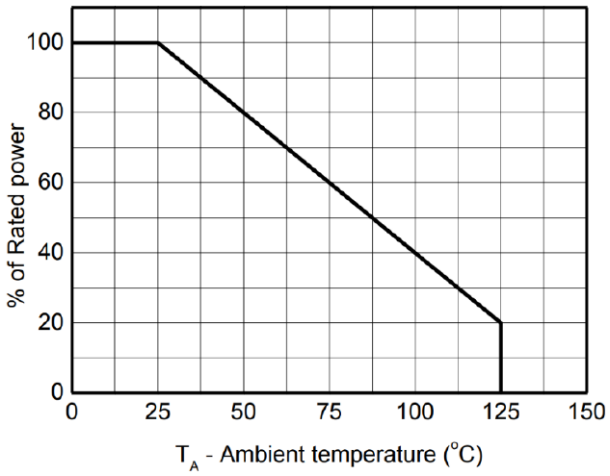
Typical Characteristics



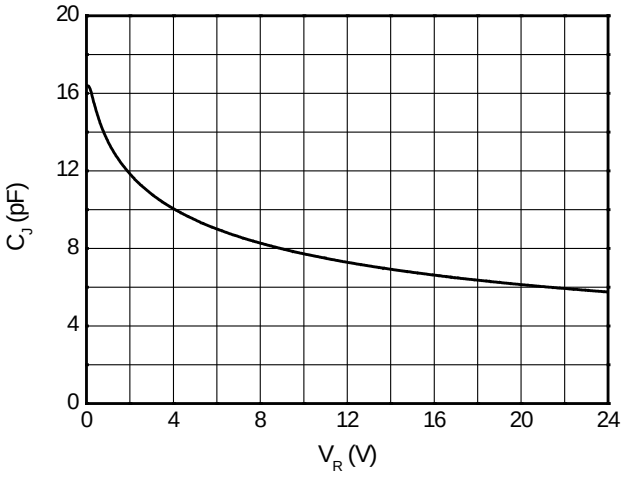
8/20μs waveform per IEC61000-4-5



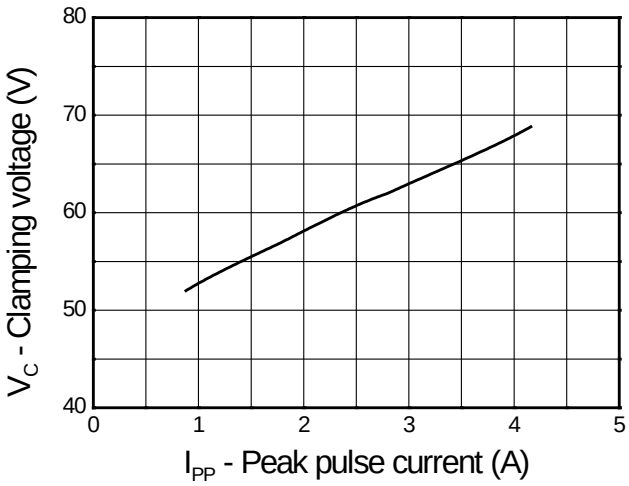
Contact discharge current waveform per IEC61000-4-2



Power derating vs. Ambient temperature

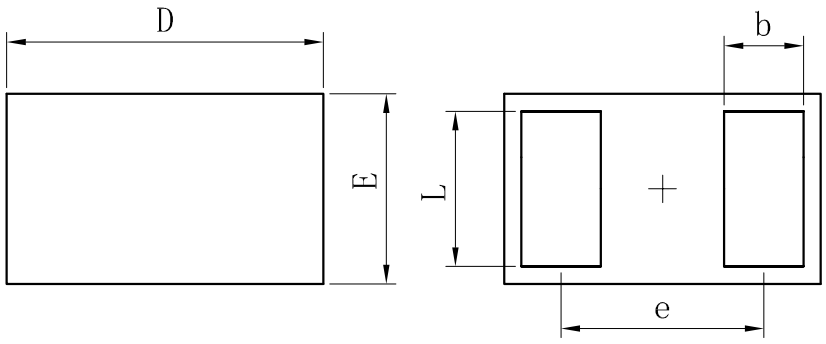


Capacitance vs. Reverse voltage

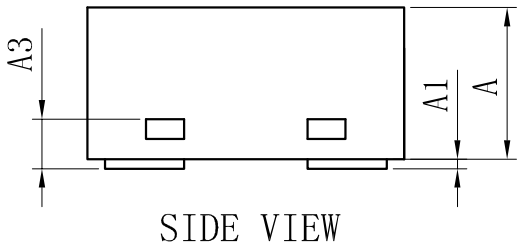


Clamping voltage vs. Peak pulse current

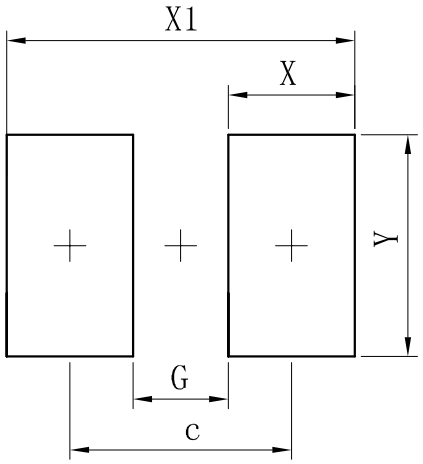
Outline And Dimensions



DFN1006-2L			
Dim	Min	Typ	Max
D	0.95	1.00	1.05
E	0.55	0.60	0.65
e	–	0.64	–
L	0.44	0.49	0.54
b	0.20	0.25	0.30
A	0.43	0.48	0.53
A1	0	–	0.05
A3	0.127REF.		
All Dimensions in mm			



Soledering Footprint



Dimensions	(mm)
c	0.70
G	0.30
X	0.40
X1	1.10
Y	0.70

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