



## Description

The HESD9N5B 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  
(SOD-882)

## Features

- ★ Low Leakage
- ★ Response Time is Typically < 1 ns
- ★ ESD Rating of Class 3 per Human Body Model
- ★ IEC61000-4-2 Level 4 ESD Protection
- ★ These are Pb-Free Devices
- ★ We declare that the material of product compliance with RoHS requirements and Halogen Free.



Circuit Diagram

## Ordering Information

Product ID	Pack	Qty(PCS)
HESD9N5B	DFN1006-2L(SOD-882)	10000

## Absolute Ratings(Tamb = 25°C)

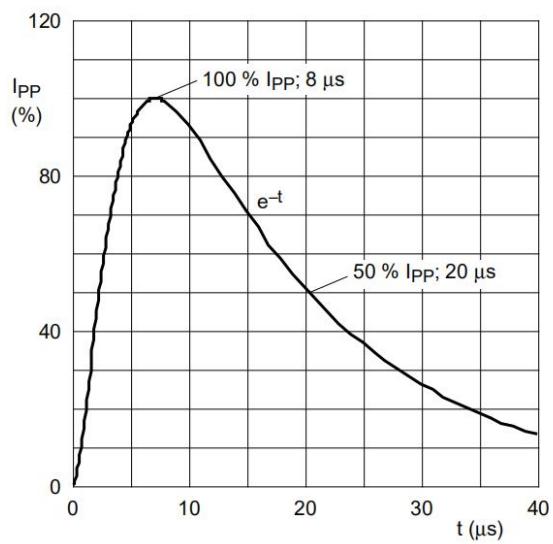
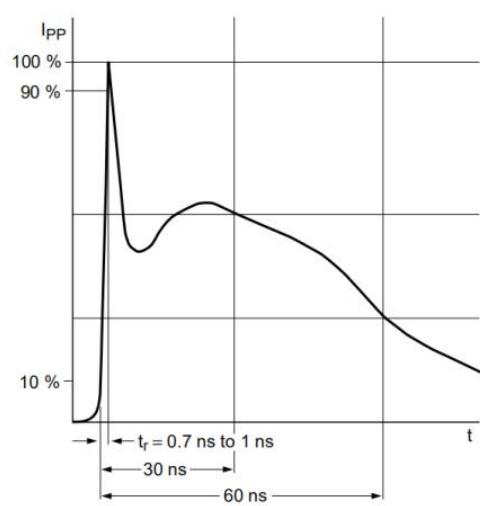
Symbol	Parameter	Value	Units
P <sub>PP</sub>	Peak Pulse Power (t <sub>p</sub> = 8/20μs)	90	W
T <sub>L</sub>	Maximum lead temperature for soldering during 10s	260	°C
T <sub>stg</sub>	Storage Temperature Range	-55 to +150	°C
T <sub>op</sub>	Operating Temperature Range	-40 to +125	°C
T <sub>j</sub>	Maximum junction temperature	150	°C
	IEC61000-4-2 (ESD) air discharge contact discharge	±30 ±30	KV



## Electrical Characteristics

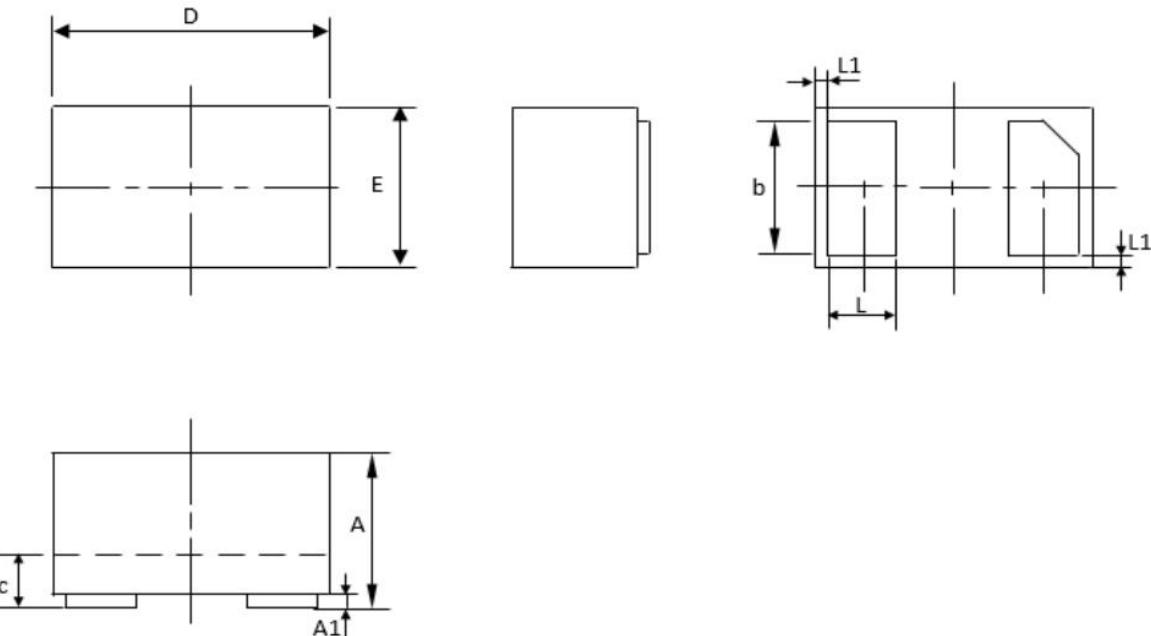
Symbol	Parameter	Test Condition	Min	Typ	Max	Units
$V_{RWM}$	Reverse Working Voltage				5.0	V
$V_{BR}$	Reverse Breakdown Voltage	$I_T = 1\text{mA}$	5.8		8.2	V
$I_R$	Reverse Leakage Current	$V_{RWM} = 5.0\text{V}$			100	nA
$V_c$	Clamping Voltage	$I_{PP} = 9\text{A}, t_p = 8/20\mu\text{s}$			10	V
$C_J$	Junction Capacitance	$V_R = 0\text{V}, f = 1\text{MHz}$		15	20	pF

## Typical Characteristics





## Outline And Dimensions



DFN1006-2L(SOD-882)			
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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