

### Discription

The HAOZ8811DI-05 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 unidirectional line in applications where arrays are not practical.



DFN1006-2L

#### **Features**

★ Transient protection for high-speed data lines IEC 61000-4-2(ESD) ±20kV (Contact) ±20kV (Air)

IEC 61000-4-4(EFT) 40A (5/50 ns)

Peak power dissipation: 60W (8/20us)

★ Working voltages: 5V

★ Ultra-small package (1.0mmx0.6mmx0.5mm)

★ Protects one data, control line

★ Low capacitance: 0.4pF (Typical)

★ Low clamping voltage

★ Low leakage current

# 1 0 0 2

Circuit Diagram

#### **Orderingin formation**

Product ID	Pack	Qty(PCS)	
HAOZ8811DI-05	DFN1006-2L	10000	

#### Absolute Ratings(Tamb = 25°C)

Symbol	Parameter		Value	Units
P <sub>PP</sub>	Peak Pulse Power ( $t_p = 8/20 \mu s$ )		60	W
TL	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		-55 to +150	°C
T <sub>j</sub>	Maximum junction temperature		150	°C
	IEC61000-4-2 (ESD) air discha contact discha		±20 ±20	KV
	IEC61000-4-4 (EFT)		40	Α

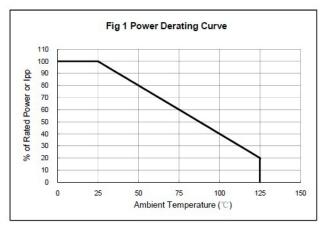


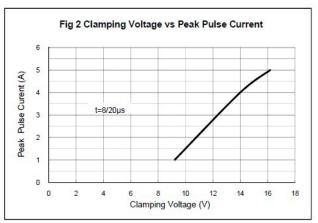
#### Electrical Characteristics Ratings at 25°C

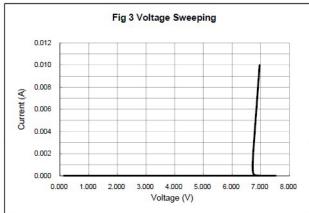
Symbol	Parameter	Test Condition	Min	Тур	Max	Units
V <sub>RWM</sub>	Reverse Working Voltage				5.0	٧
V <sub>BR</sub>	Reverse Breakdown Voltage	Iτ = 1mA	6.0			V
I <sub>R</sub>	Reverse Leakage Current	V <sub>RWM</sub> = 5V			100	nA
Vc Clamping Voltage	$I_{RWM} = 1A, t_p = 8/20 \mu s$			10	V	
	$I_{\text{RWM}}=4A,t_{\text{p}}=8/20\mu\text{s}$			15	V	
C¹	Junction Capacitance	$V_R = 0V$ , $f = 1MHz$		0.60	0.80	pF

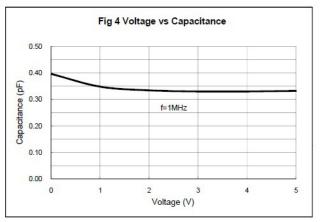


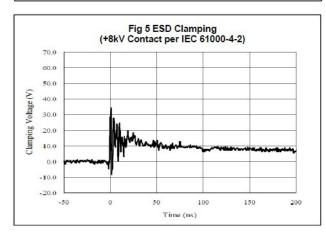
## **Typical Characteristics**

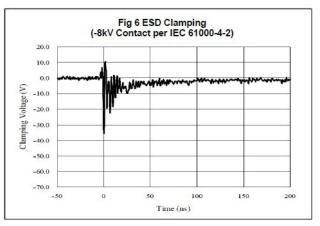




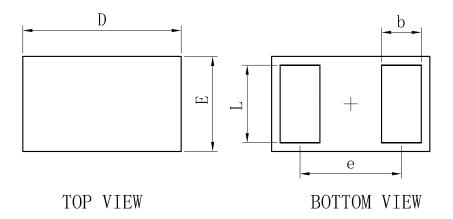




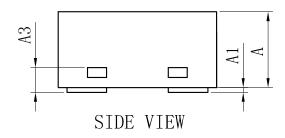




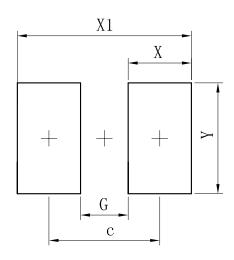
#### **Outline And Dimensions**



DFN1006-2L			
Dim	Min	Тур	Max
D	0. 95	1.00	1.05
Е	0. 55	0.60	0.65
е	-	0.64	ı
L	0.44	0.49	0. 54
b	0. 20	0. 25	0.30
A	0. 43	0.48	0. 53
A1	0	I	0.05
A3	0. 127REF.		
All Dimensions in mm			



## **Soledering Footprint**



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



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