HLESD8D5.0CAT5G
ESD PROTECTION DIODE

Discription

The HLESD8D5.0CAT5G 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)
HLESD8D5.0CAT5G	DFN1006-2L(SOD-882)	10000

MAXIMUM RATINGS

Rating	Symbol	Value	Unit
IEC 61000-4-2 (ESD) Air discharge Contact discharge		±25 ±20	kV kV
Total Power Dissipation on FR-5 Board (Note 1) @ T_A=25℃	PD	200	mW
Junction and Storage Temperature Range	TJ,TSTG	-55 to 150	℃
Lead Solder Temperature – Maximum (10 Second Duration)	TL	260	℃

Stresses exceeding Maximum Ratings may damage the device. Maximum Rating are stress ratings only. Functional operation above the Recommended Operating Conditions is not implied. Extended exposure to stresses above the Recommended Operating Conditions may affect device reliability.

1. FR-5 = 1.0*0.75*0.62 in.

ELECTRICAL CHARACTERISTICS

Device	V_{RWM} (V)	I_{R1}(μA) @ V_{RWM}	I_{R2}(μA) @ V_R=3.5V	V_{BR} (V) @ I_T (Note 2)		I_T	V_C (V) @ I_{PP} = 1 A (Note 3)	V_C (V) @MAX I_{PP} (Note 3)	I_{PP}(A) (Note 3)	P_{PK}(W) (Note 3)	C (pF)
	Max	Max	Max	Min	Max	mA	Max	Max	Max	Max	Typ
HLESD8D5.0CAT5G	5.0	0.5	0.3	5.6	8.0	1.0	9.8	10	9	90	15

Other voltage available upon request.

2. V_{BR} is measured with a pulse test current IT at an ambient temperature of 25℃

3. Surge current waveform per Figure 3.

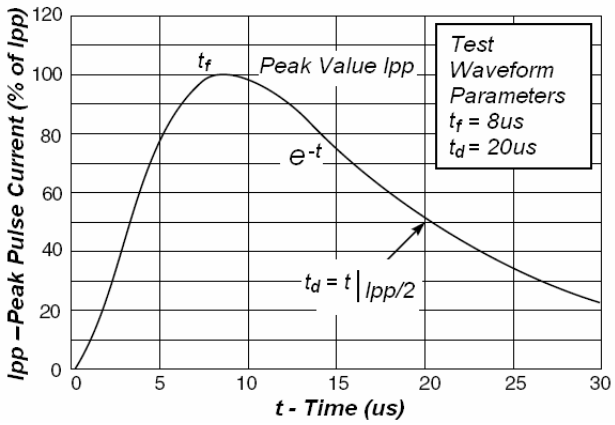


Fig1. Pulse Waveform

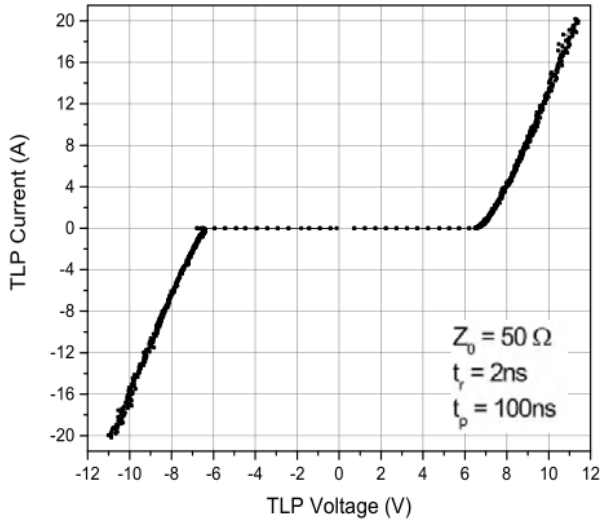
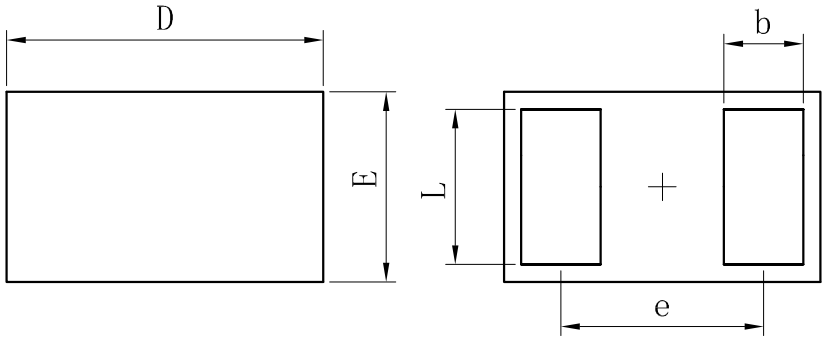


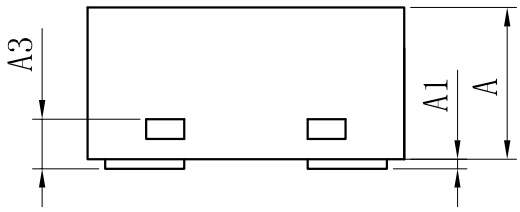
Fig2.TLP Measurement

OUTLINE AND DIMENSIONS



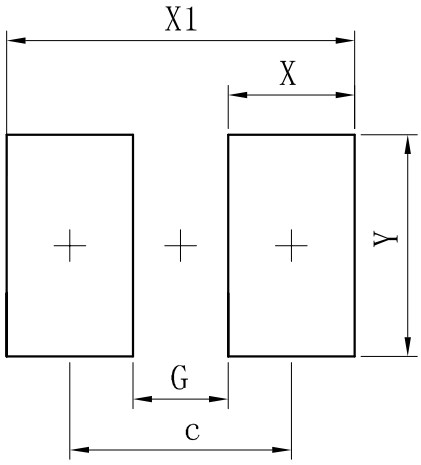
TOP VIEW BOTTOM VIEW

DFN1006-2L(SOD-882)			
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			



SIDE VIEW

SOLDERING FOOTPRINT



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

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