LESD8LH5.0CT5G
ESD PROTECTION DIODE

Discription

Low capacitance bidirectional ElectroStatic Discharge (ESD) protection diode in a DFN1006-2L(SOD-882) leadless ultra small Surface-Mounted Device (SMD) plastic package designed to protect one signal line from the damage caused by ESD and other transients.



DFN1006-2L

Features

★ Bidirectional ESD protection of one line
★ Femtofarad capacitance: Cj = 2.5pF(Typ)
★ Low clamping voltage VC = 10.0V @1A (Max)
★ Low leakage current: nA Level
★ ESD protection up to 30 kV
★ IEC 61000-4-2; level 4 (ESD)
★ IEC 61000-4-5 (surge); IPPM = 2.5 A



Circuit Diagram

Applications

★ Portable electronics
★ Computers and peripherals
★ Audio and video equipment
★ Cellular handsets and accessories
★ Communication systems
★ Power supplies

Ordering Information

Product ID	Pack	Qty(PCS)
LESD8LH5.0CT5G	DFN1006-2L	10000

Absolute Ratings(Tamb = 25°C)

Symbol	Parameter	Value	Units
P_{PP}	Peak Pulse Power (t_p = 8/20 μ s)	30	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	±10 ±15	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 = 1mA	5.5		8.5	V
I_R	Reverse Leakage Current	V_{RWM} = 5.0V			1.0	uA
V_C	Clamping Voltage	I_{PP} = 1A, t_p = 8/20μs			10.0	V
C_J	Junction Capacitance	V_R = 0V, f = 1MHz		2.5		pF

Typical Characteristics

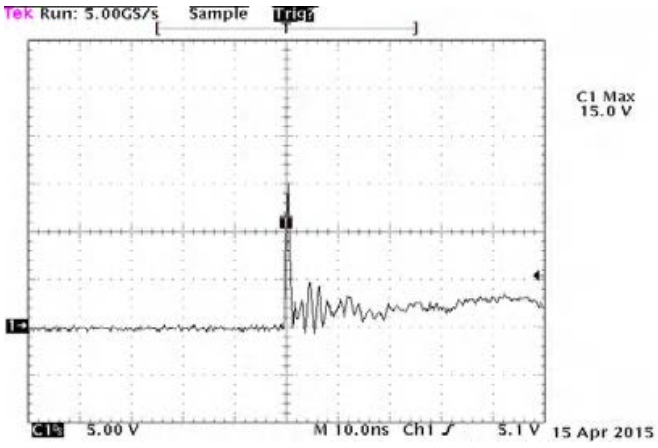


Figure 1. ESD Clamping Voltage Screenshot Positive 8 kV Contact per IEC61000−4−2

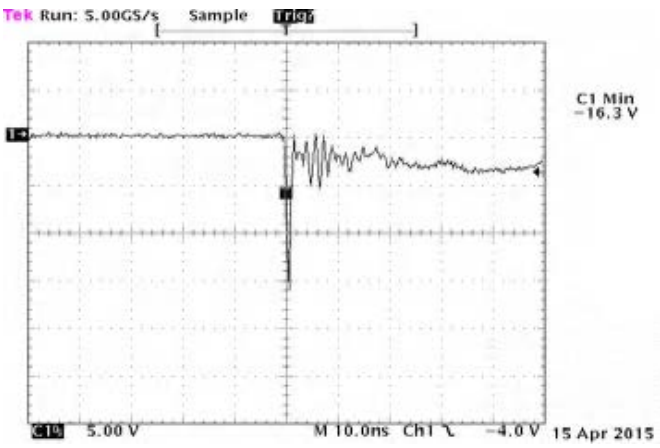


Figure 2. ESD Clamping Voltage Screenshot Negative 8 kV Contact per IEC61000−4−2

IEC 61000−4−2 Spec.

Level	Test Voltage (kV)	First Peak Current (A)	Current at 30 ns (A)	Current at 60 ns (A)
1	2	7.5	4	2
2	4	15	8	4
3	6	22.5	12	6
4	8	30	16	8

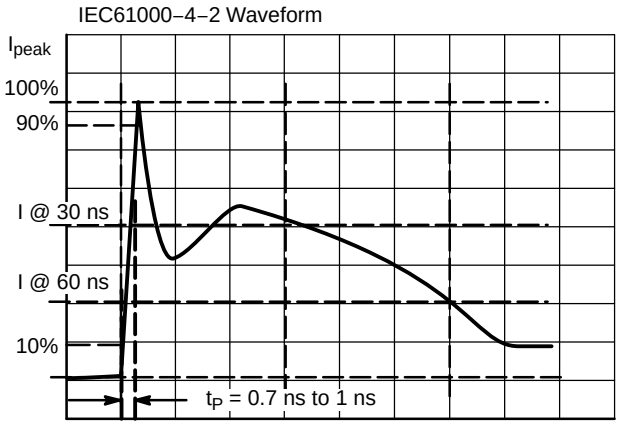


Figure 3. IEC61000−4−2 Spec

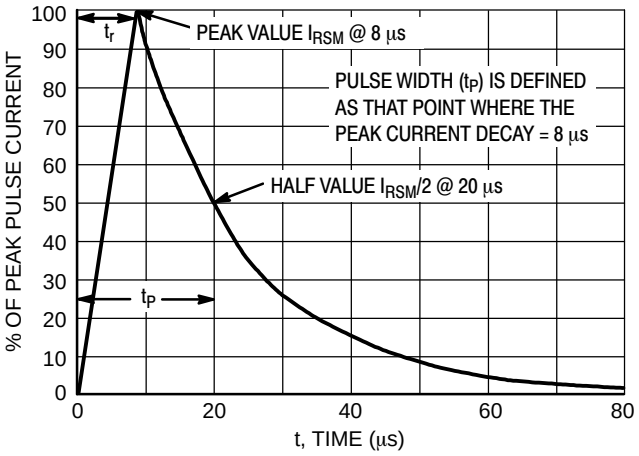
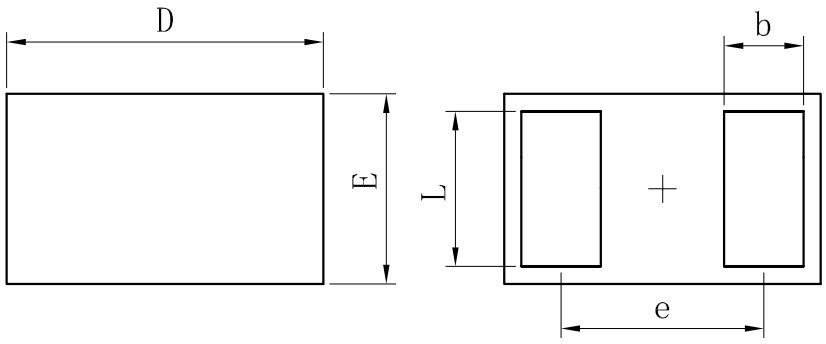
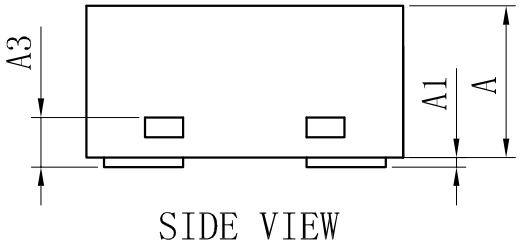


Figure 4. 8 X 20 μs Pulse Waveform

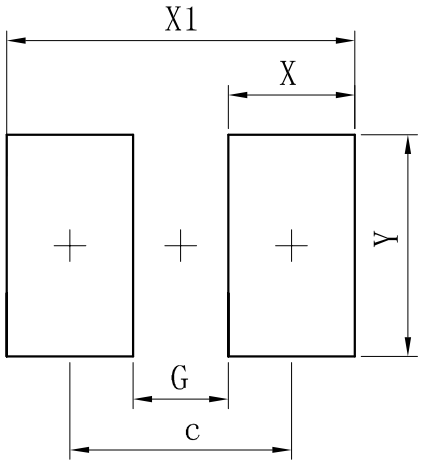
Outline And Dimensions



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			



Soldering Footprint



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

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