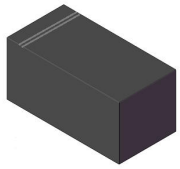
LESD11D12CT5G ESD PROTECTION DIODE

Discription

The LESD11D12CT5G is designed to protect voltage sensitive components from ESD. Excellent clamping capability, low leakage, and fast response time provide best in class protection on designs that are exposed to ESD. Because of its small size, it is suited for use in cellular phones, digital cameras and many other portable applications where board space is at a premium.

LESD11D12CT5G



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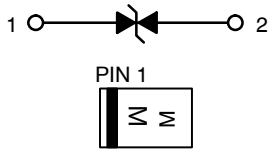


M =Specific Device Code
M = Month Code

Applications

- Cellular phones audio
- Digital cameras
- Portable applications
- Mobile telephone

Features

- Small Body Outline Dimensions: 0.61 mm x 0.31 mm
- Low Body Height: ″ 0.28 mm
- Low Leakage
- Response Time is Typically < 1 ns
- ESD Rating of Class 3 per Human Body Model
- IEC61000−4−2 Level 4 ESD Protection
- We declare that the material of product compliance with RoHS requirements and Halogen Free.

Ordering information

Device	Marking	Shipping
LESD11D12CT5G	M (Rotate 90℃w)	15000/Tape&Reel

MAXIMUM RATINGS

Rating	Symbol	Value	Unit
IEC 61000-4-2 (ESD) Air 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.

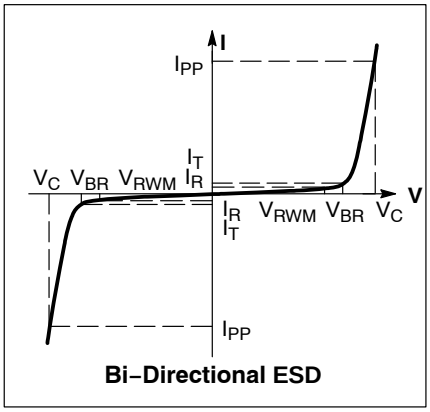
1. FR-5 = 1.0*0.75*0.62 in.

LESD11D12CT5G

ELECTRICAL CHARACTERISTICS

(T_A = 25°C unless otherwise noted)

Symbol	Parameter
I_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
V_{RWM}	Working Peak Reverse Voltage
I_R	Maximum Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current
P_{pk}	Peak Power Dissipation
C	Capacitance @ V_R = 0 and f = 1.0 MHz



Bi−Directional ESD

ELECTRICAL CHARACTERISTICS

Device	V_{RWM} (V)	I_R (μA) @ V_{RWM}	V_{BR} (V) @ I_T (Note 1)		I_T (mA)	I_{PP} (A)	V_C (V) @ Max I_{PP}	P_{PK} (W) (8*20 μs)	C (pF)		
	Max	Max	Min	Max		Max	Max	Max	Min	Typ	Max
LESD11D12CT5G	12	1.0	13.3	16	1.0	4	24	95	3.5	6.5	9.5

2. V_{BR} is measured with a pulse test current IT at an ambient temperature of 25℃
3. Surge current waveform per Figure 3.

TYPICAL CHARACTERISTICS

Figure 1. Positive 8kV contact per IEC 61000-4-2-LESD11D12CT5G

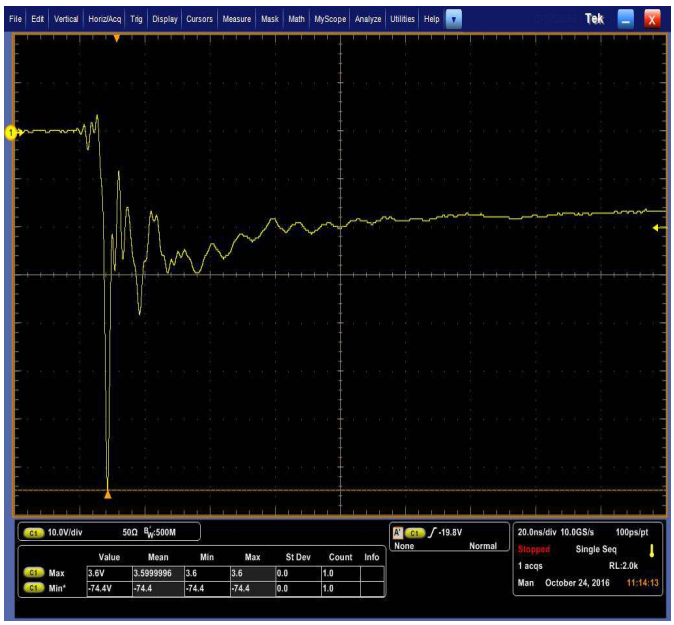


Fig 2. Negative 8kV contact per IEC 61000-4-2-LESD11D12CT5G

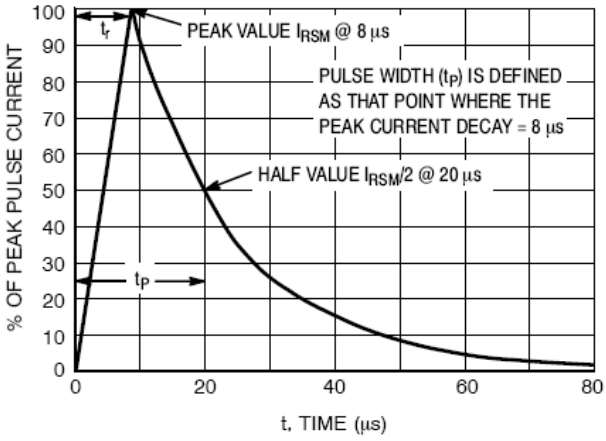


Figure 3. 8*20 µs Pulse Waveform

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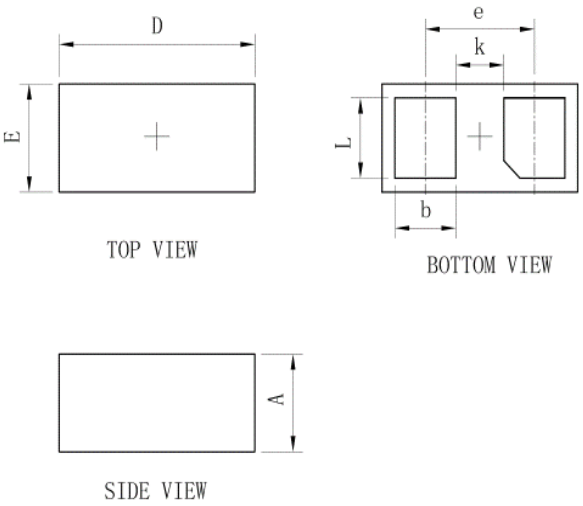
OUTLINE AND DIMENSIONS



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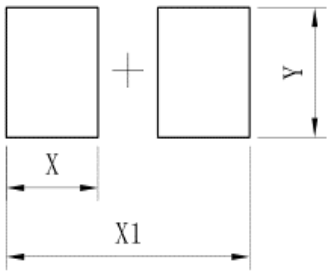
Dim	Min	Typ.	Max
D	0.58	0.61	0.64
E	0.28	0.31	0.34
e	-	0.34	-
L	0.20	0.23	0.26
b	0.16	0.19	0.22
A	0.25	0.28	0.31
k	0.12	0.15	0.18
All Dimensions in mm			

SOLDERING FOOTPRINT



DFN0603-DL	
DIM	(mm)
X	0.23
X1	0.61
Y	0.30

DISCLAIMER

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