LESD11D5.0T5G ESD PROTECTION DIODE

Description

The LESD11D5.0T5G 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.

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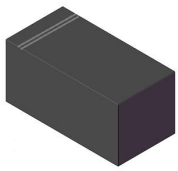

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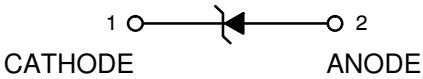

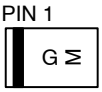

G = Specific Device Code
M = Month Code

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
- IEC61000−4−2 Level 4 ESD Protection
- We declare that the material of product are Halogen Free and compliance with RoHS requirements.

Ordering information

Device	Marking	Shipping
LESD11D5.0T5G	G	15000/Tape&Reel

MAXIMUM RATINGS

Rating	Symbol	Value	Unit
IEC 61000-4-2 (ESD) Air discharge Contact discharge		±15 ±8	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.

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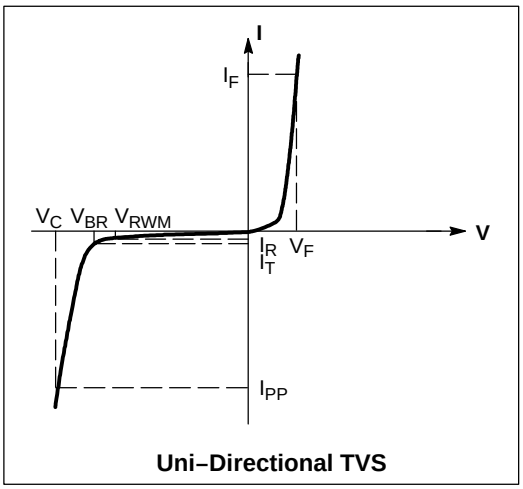
ELECTRICAL CHARACTERISTICS

(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
I_F	Forward Current
V_F	Forward Voltage @ I_F
P_{pk}	Peak Power Dissipation
C	Capacitance @ V_R = 0 and f = 1.0 MHz



Uni–Directional TVS

ELECTRICAL CHARACTERISTICS (T_A=25℃ unless otherwise noted,VF=1V MAX@ IF=10mA)

Device	V_{RWM} (V)	I_R (μA) @ V_{RWM}	V_{BR} (V) @ I_T (Note 2)	I_T （mA）	I_{PP} (A) (Note 3)	V_C (V) @ Max I_{PP} (Note 3)	P_{PK} (W) (8*20 μs)	C (pF)
	Max	Max	Min		Max	Max	Typ	Typ
LESD11D5.0T5G	5.0	1.0	6.2	1.0	6	11	66	30

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

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TYPICAL CHARACTERISTICS

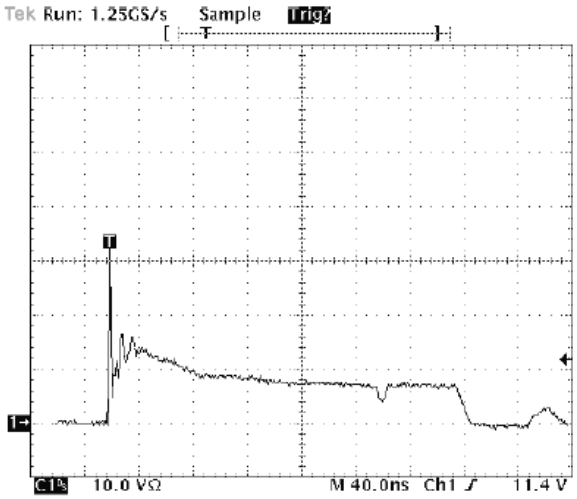

Figure 1. Positive 8kV contact per IEC 61000-4-2-LESD11D5.0T5G

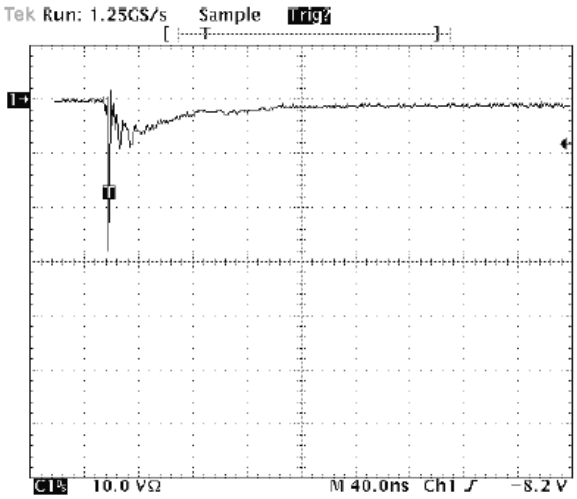

Fig 2. Negative 8kV contact per IEC 61000-4-2-LESD11D5.0T5G

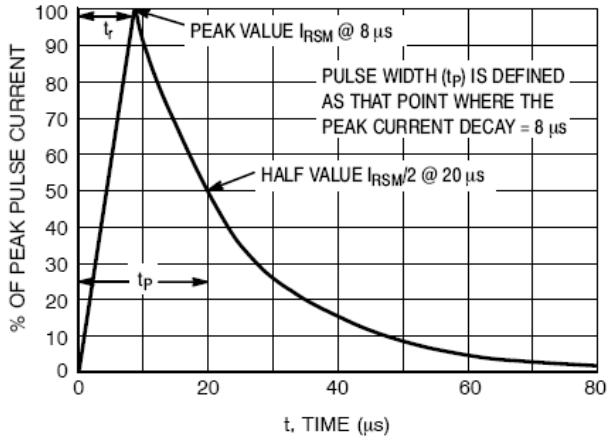

Figure 3. 8*20 µs Pulse Waveform

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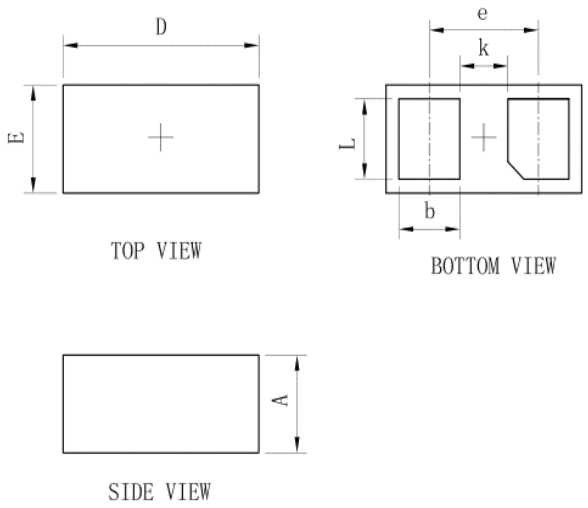
OUTLINE AND DIMENSIONS



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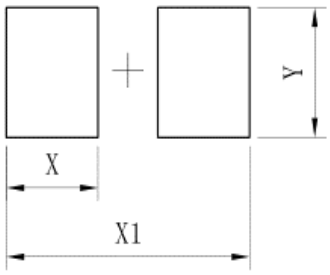
Dim	Min	Typ.	Max
D	0.58	0.61	0.64
E	0.28	0.31	0.34
e	-	0.34	-
L	0.20	0.23	0.26
b	0.16	0.19	0.22
A	0.25	0.28	0.31
k	0.12	0.15	0.18
All Dimensions in mm			

SOLDERING FOOTPRINT



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

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