

LESD11D1.8CT5G ESD PROTECTION DIODE

Discription

The LESD11D1.8CT5G is designed to protect voltage sensitive components from ESD. Excellent clamping capability, low leakage, and fast response time make these parts ideal for ESD protection on designs where board space is at a premium. 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.

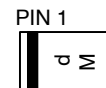
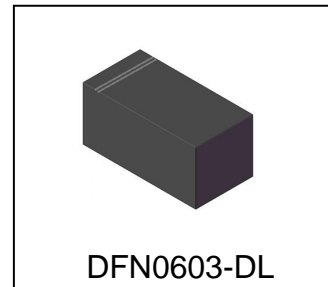
Applications

- | 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: nA level
- | Low clamping voltage
- | IEC61000-4-2 Level 4 ESD Protection
- | We declare that the material of product compliance with RoHS requirements and Halogen Free.

LESD11D1.8CT5G



d = Specific Device Code
M = Month Code

Ordering information

Device	Marking	Shipping
LESD11D1.8CT5G	d(CCW90°)	15000/Tape&Reel

MAXIMUM RATINGS

Rating	Symbol	Value	Unit
IEC 61000-4-2 (ESD) Air discharge Contact discharge		±30 ±30	kV kV
Peak Pulse Power (8/20µs)	PPK	80	W
Junction and Storage Temperature Range	TJ,TSTG	-55 to 125	°C
Lead Solder Temperature – Maximum (10 Second Duration)	TL	260	°C

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.

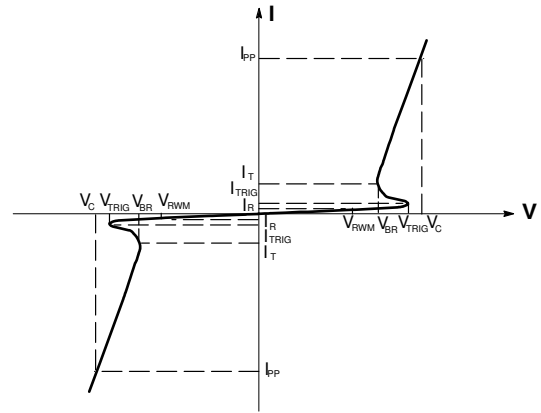
1. FR-5 = 1.0*0.75*0.62 in.

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Electrical Characteristics

($T_A = 25^\circ\text{C}$ unless otherwise noted)

Symbol	Parameter
I_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
V_{RWM}	Reverse standoff voltage
I_R	Maximum Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current
V_{TRIG}	Reverse trigger voltage
I_{TRIG}	Reverse trigger current



Bi-Directional ESD

Electrical Characteristics ($T_A=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Working Voltage	V_{RWM}			1.8	V	
Breakdown Voltage	V_{BR}	2.3		3.8	V	$I_T = 1\text{ mA}$
Reverse Leakage Current	I_R			0.5	μA	$V_R = 1.8\text{ V}$
Peak Pulse Current	I_{PP}			12	A	
Clamping Voltage	V_C			8.5	V	$I_{PP} = 12\text{ A}(8 \times 20\mu\text{s pulse})$
Junction Capacitance	C_J		20.3		pF	$V_R = 0\text{ V}, f = 1\text{ MHz}$

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Typical Performance Characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise Specified)

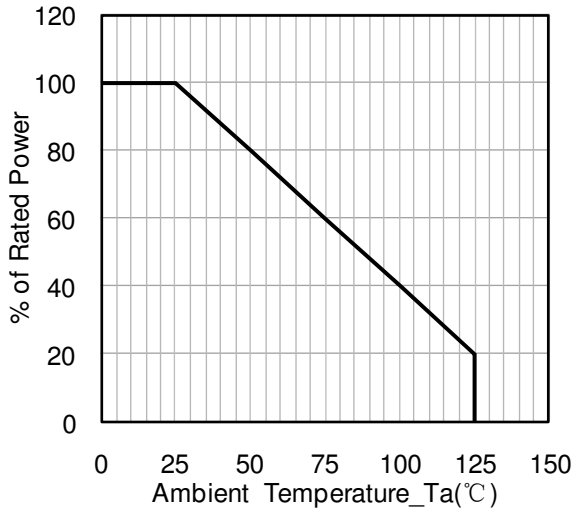


Fig1. Power Derating Curve

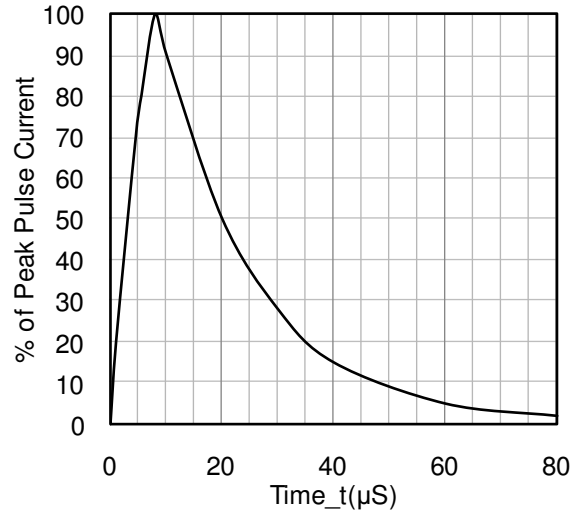


Fig 2. 8 X 20 μS Pulse Waveform

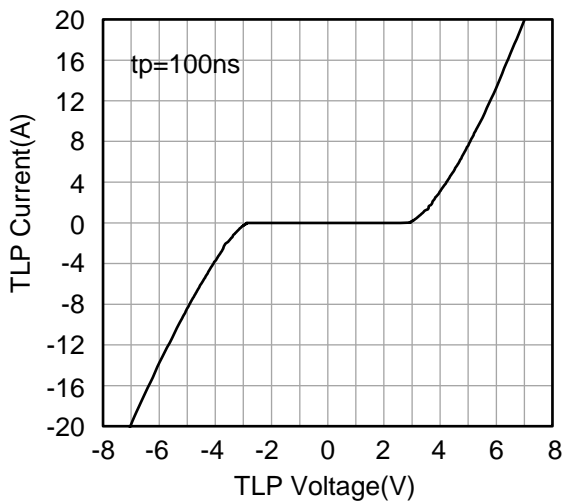


Fig3. TLP Measurement

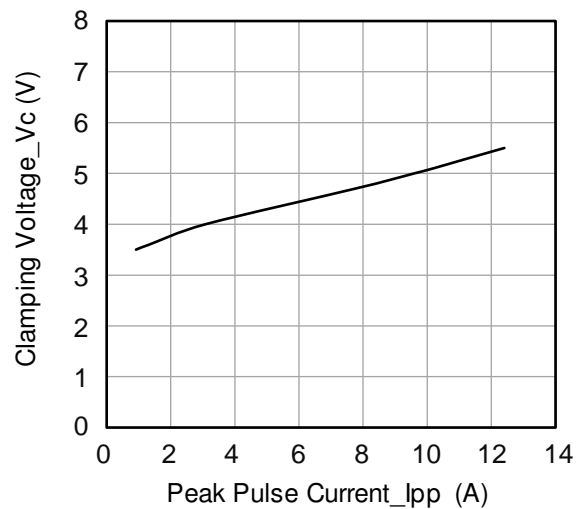
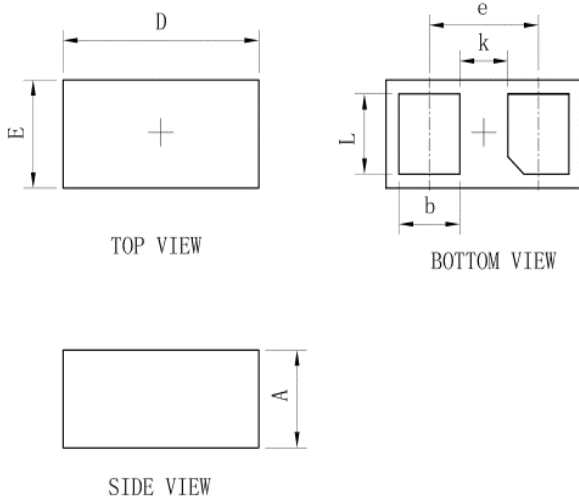


Fig4. Clamping Voltage vs. Peak Pulse Current

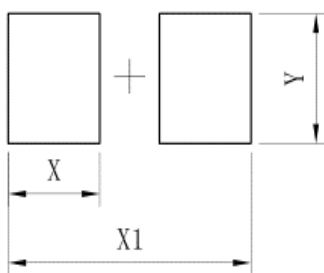
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OUTLINE AND DIMENSIONS



DFN0603-DL			
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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