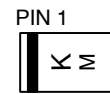
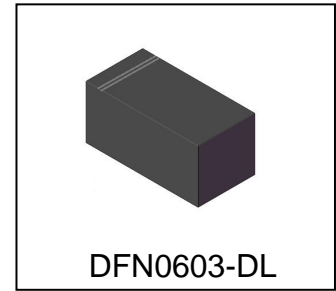


LESD11LH3.3CT5G

ESD Protection Diodes

1. FEATURES

- Low clamping voltage.
- Low Leakage
- Ultra Low Capacitance
- Response Time is Typically < 1.0 ns.
- This is a Pb-Free Device
- Complies with IEC 61000-4-2 standards: Air discharge: $\pm 25\text{kV}$
Contact discharge: $\pm 20\text{kV}$
- We declare that the material of product compliance with RoHS requirements and Halogen Free.



\leq = Specific Device Code
 \geq = Month Code

2. DEVICE MARKING AND ORDERING INFORMATION

Device	Marking	Shipping
LESD11LH3.3CT5G	K(CCW 90°)	15000/Tape&Reel

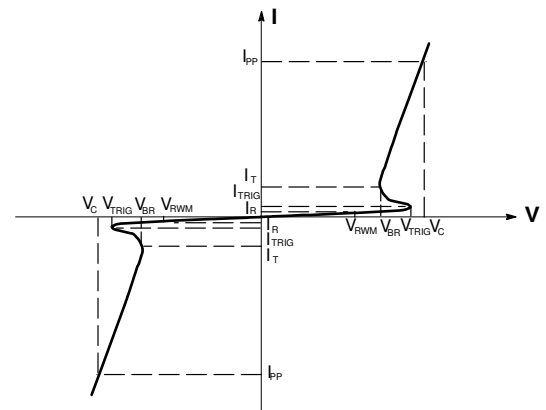
3. MAXIMUM RATINGS(Ta = 25°C)

Parameter	Symbol	Limits	Unit
IEC 61000-4-2 (ESD) Contact		± 20	kV
Air		± 25	kV
peak pulse power @ 8/20 μs (Note 1)	PPP	40	W
peak pulse current @ 8/20 μs (Note 1)	IPP	4	A
Storage Temperature Range	Tstg	-55 ~ +150	°C
Junction Temperature Range	TJ	-55 ~ +150	°C
Lead Solder Temperature - Maximum (10 Second Duration)	TL	260	°C

Note 1. Surge current waveform per Figure 1 according to IEC 61000-4-5.

4. ELECTRICAL CHARACTERISTICS (Ta= 25°C)

Symbol	Parameter
IPP	Maximum Reverse Peak Pulse Current
VC	Clamping Voltage @ IPP
VRWM	Working Peak Reverse Voltage
IR	Maximum Reverse Leakage Current @ VRWM
VBR	Breakdown Voltage @ IT
IT	Test Current
VTRIG	Reverse trigger voltage
ITRIG	Reverse trigger current



Bi-Directional TVS

5. ELECTRICAL CHARACTERISTICS (Ta= 25°C)

Characteristic	Symbol	Min.	Typ.	Max.	Unit
reverse stand-off voltage	VRWM			3.3	V
reverse leakage current (VRWM = 3.3 V)	IRM			500	nA
breakdown voltage (IT = 1 mA)	VBR	3.8		6.5	V
Clamping Voltage(Note 1) (IPP = 1A (8 x 20µs pulse)) (IPP = 4A (8 x 20µs pulse))	VC			6 9	V
Junction Capacitance (VR = 0V, f = 1MHz)	CJ		5.5	6	pF

Note 1. Surge current waveform per Figure 1 according to IEC 61000-4-5.

6. ELECTRICAL CHARACTERISTICS CURVES(Con.)

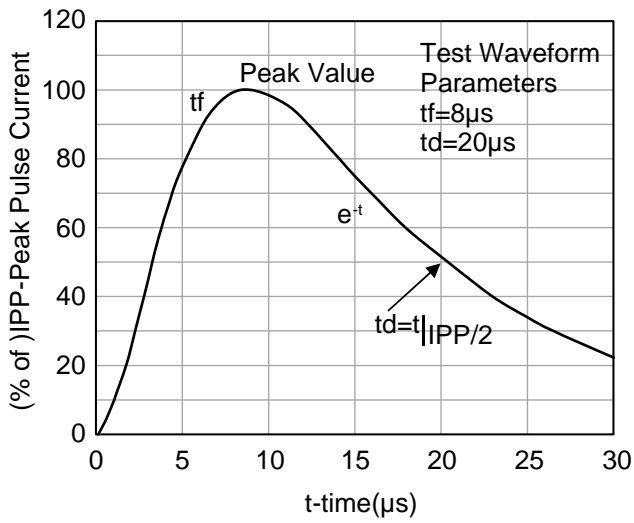


Figure 1. Pulse Waveform according to IEC 61000-4-5

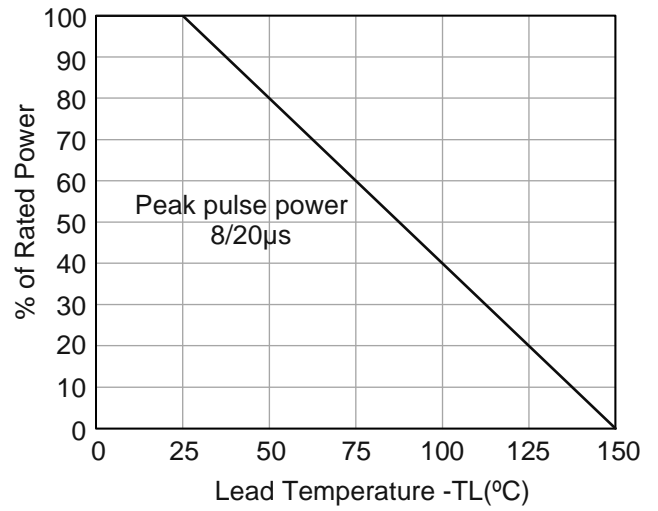


Figure 2. Power Derating Curve



Figure 3. Clamping Voltage vs. Peak Pulse Current according to IEC 61000-4-5.

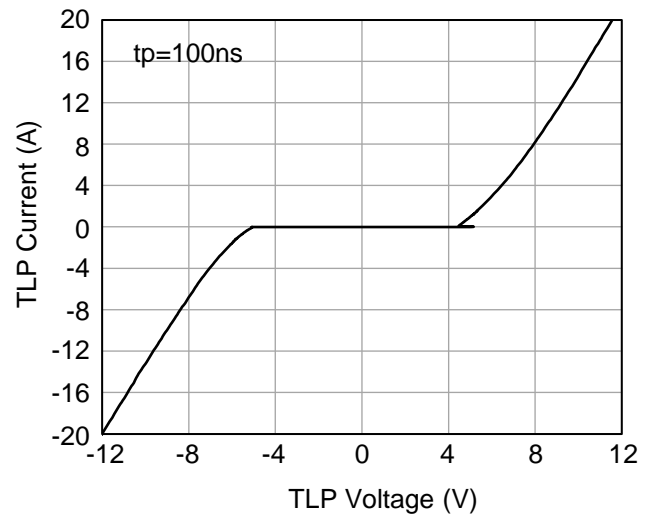


Figure 4. TLP Measurement

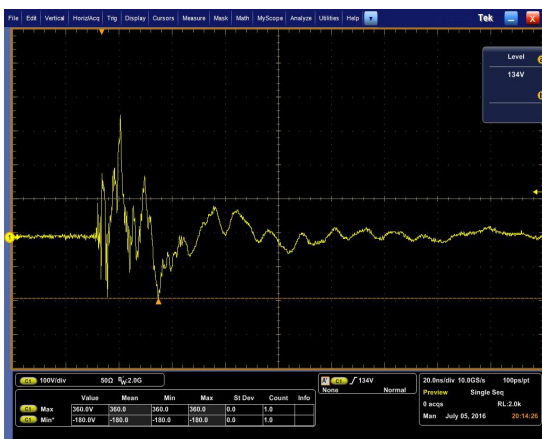
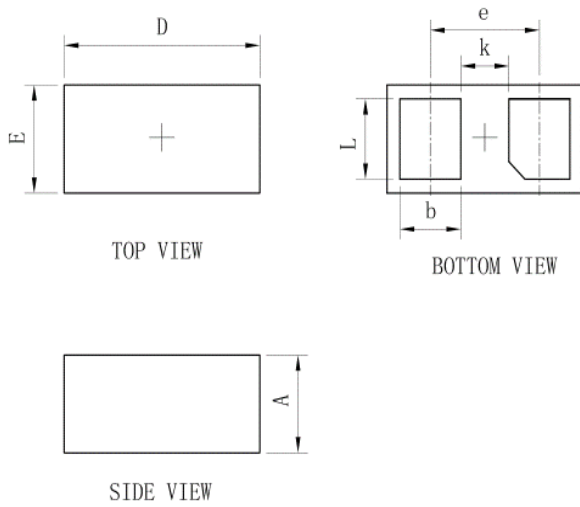


Figure 5. ESD Clamping Voltage Screenshot Positive 8 kV Contact per IEC61000-4-2



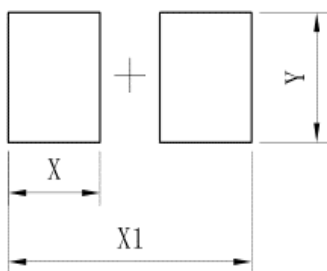
Figure 6. ESD Clamping Voltage Screenshot Negative 8 kV Contact per IEC61000-4-2

7. 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			

8. SOLDERING FOOTPRINT



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

DISCLAIMER

- Curve guarantee in the specification. The curve of test items with electric parameter is used as quality guarantee. The curve of test items without electric parameter is used as reference only.
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