LITEON LITE-ON SEMICONDUCTORS

LEFH1701TC-6

ESD/EMI PROTECTION DEVICE

STAND-OFF VOLTAGE – **5.0** Volts

GENERAL DESCRIPTION

The LEFH1701TC-6 is a low pass filter array with integrated TVS diodes. It is designed to suppress unwanted EMI/RFI signals and provide electrostatic discharge (ESD) protection in portable electronic equipment. This state-of-the-art device utilizes solid-state silicon-avalanche technology for superior clamping performance and DC electrical characteristics. They have been optimized for protection of color LCD panels in cellular phones and other portable electronics.

FEATURES

- Pi-style EMI filters in a capacitor-inductor-capacitor (C-L-C) network.
- Greater than 30dB attenuation (typical) at 1GHz
- Protection and filtering for six lines
- IEC 61000-4-2, level 4 (ESD), > ±15KV (air) ; > ±8KV (contact).

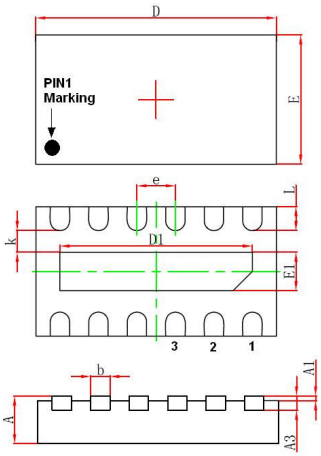
APPLICATION

- LCD and camera data lines in mobile handsets
- Wireless handsets
- LCD and camera modules

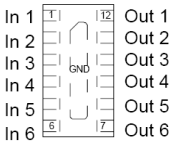
MECHANICAL DATA

- Case Material: "Green" molding compound UL flammability classification 94V-0 (No Br.Sb, Cl)
- Terminals: Lead Free Plating (Matte Tin Finish)
- Component in accordance to RoHs 2002/95/E

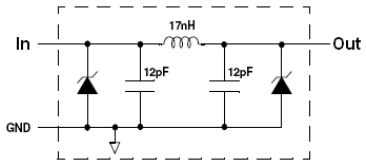
SLP2513P12



SLP2513P12		
DIM.	MIN.	MAX.
A	0.45	0.65
A1	0.00	0.05
A3	0.15 REF	
D	2.42	2.58
E	1.27	1.43
D1	1.9	2.1
E1	0.3	0.5
K	0.2 MIN	
b	0.15	0/25
e	0.4 TYP	
L	0.17	0.33
All Dimensions in millimeter		



Pin Assignment (Top side view)



Device Schematic (6X)

MAXIMUM RATINGS (Tj=25oC, unless otherwise specified)

Rating	Symbol	Value	Unit
ESD per IEC 61000-4-2 (Air)	VESD	+/- 25	kV
ESD per IEC 61000-4-2 (Contact)	VESD	+/- 20	kV
Operating Junction Temperature Range	TJ	-40 to + 85	℃
Storage Temperature Range	Tstg	-55 to + 150	℃
Soldering Temperature, t max = 10s	TL	260	℃

ELECTRICAL CHARACTERISTICS (Tj= 25℃ unless otherwise noticed)

Parameter	Symbol	Condition	MIn	Typ	Max	Unit
Reverse standoff voltage	VRWM		---	---	5.0	V
Breakdown voltage	VBR	IR = 1 mA	5.6	6.8	9.0	V
Reverse leakage current	IRM	VDRM = 3.3V	---	0.02	1.0	uA
Junction capacitance	CJ	VR = 2.5V , f = 1MHz, Any I/O to GND	18.8	23.5	28.2	pF
Roll-off Frequency at -6dB	fc	Note1	---	400	---	MHz

Note: It is guaranteed by design and characterization.

Rev. 0, Oct-2010, KSIR40

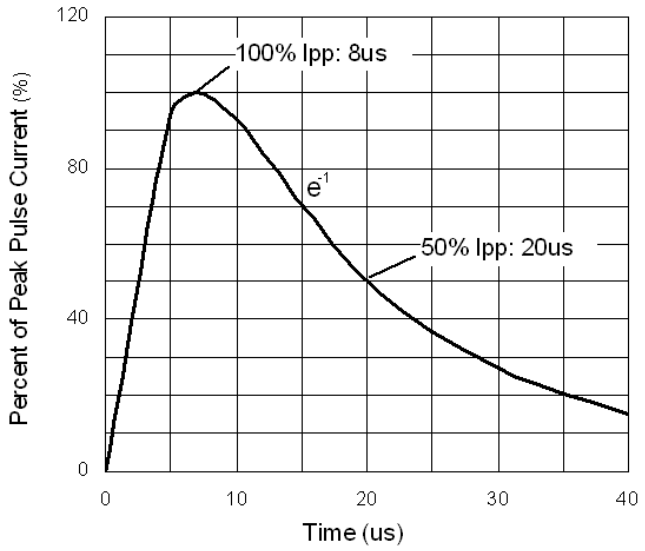


Figure 1. 8/20 us pulse waveform according to IEC 61000-4-5

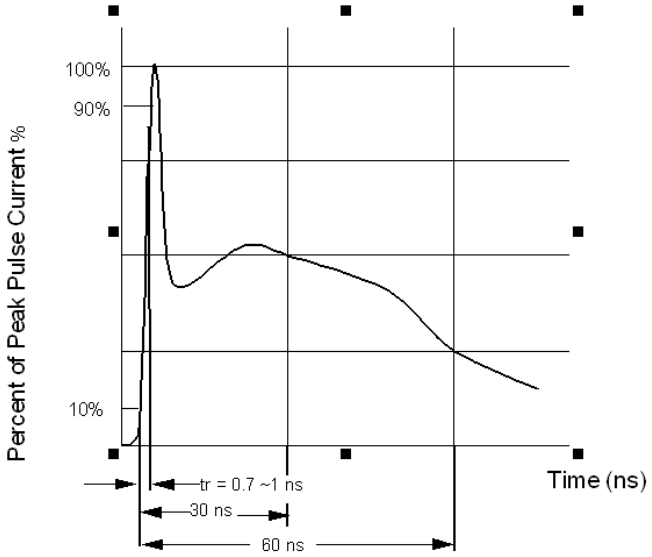


Figure 2. ESD pulse waveform according to IEC 61000-4-2

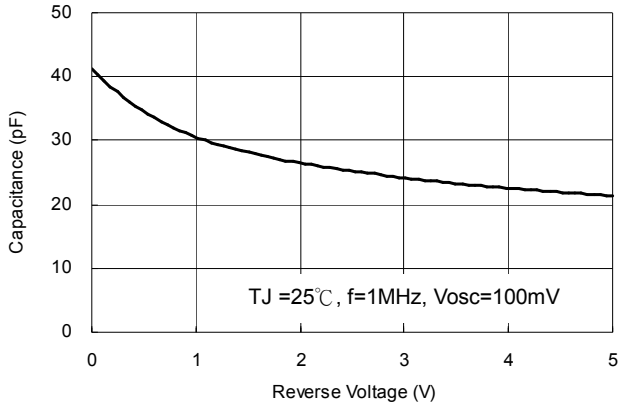


Figure 3. Typical Junction Capacitance

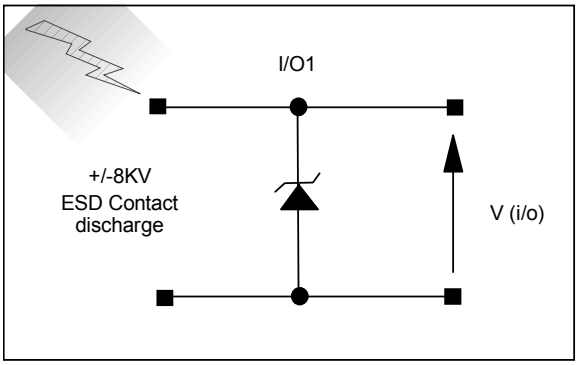


Figure 4. ESD Test Configuration

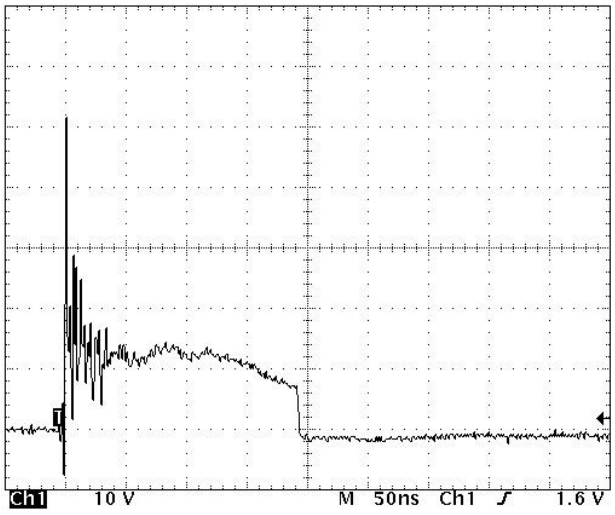


Figure 5. Clamped +8 kV ESD voltage waveform

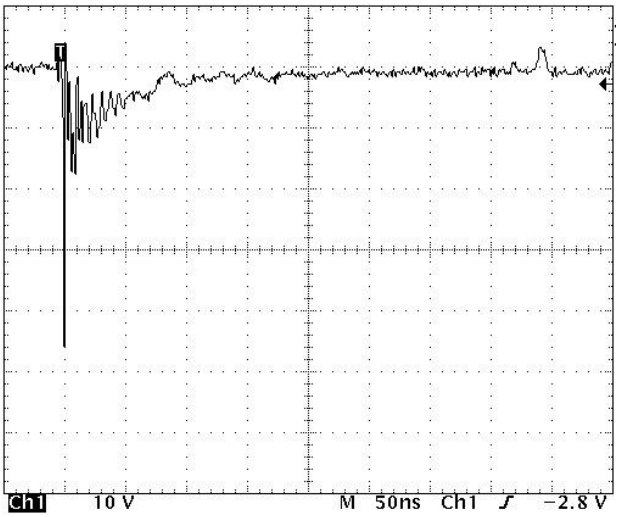


Figure 6. Clamped -8 kV ESD voltage waveform

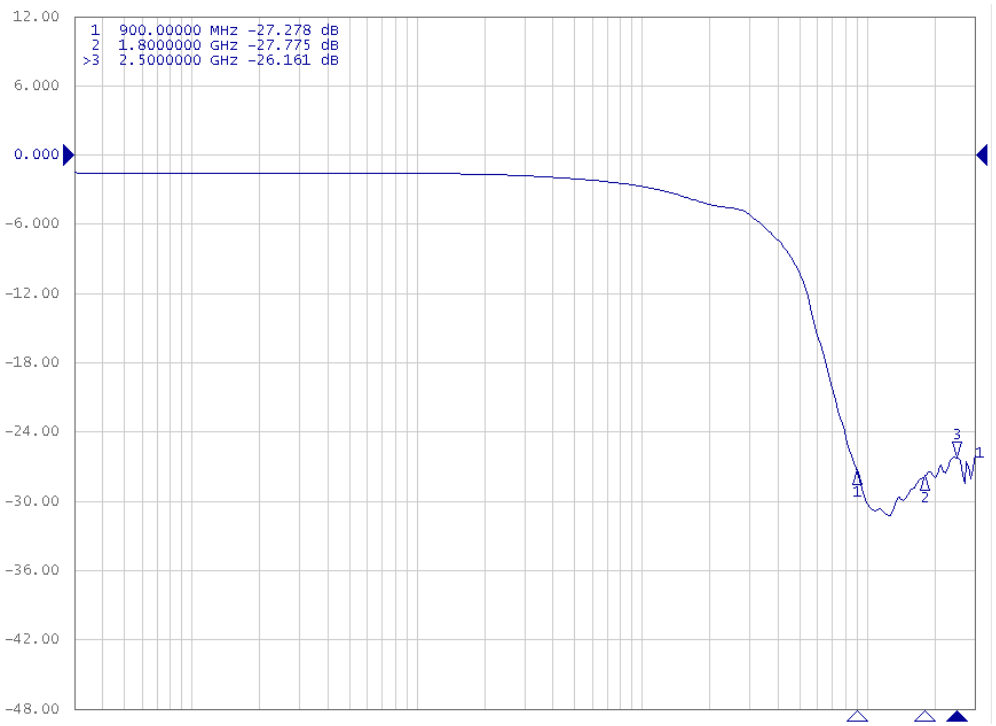


Figure 7. Typical Insertion Loss S21 (Each Line)

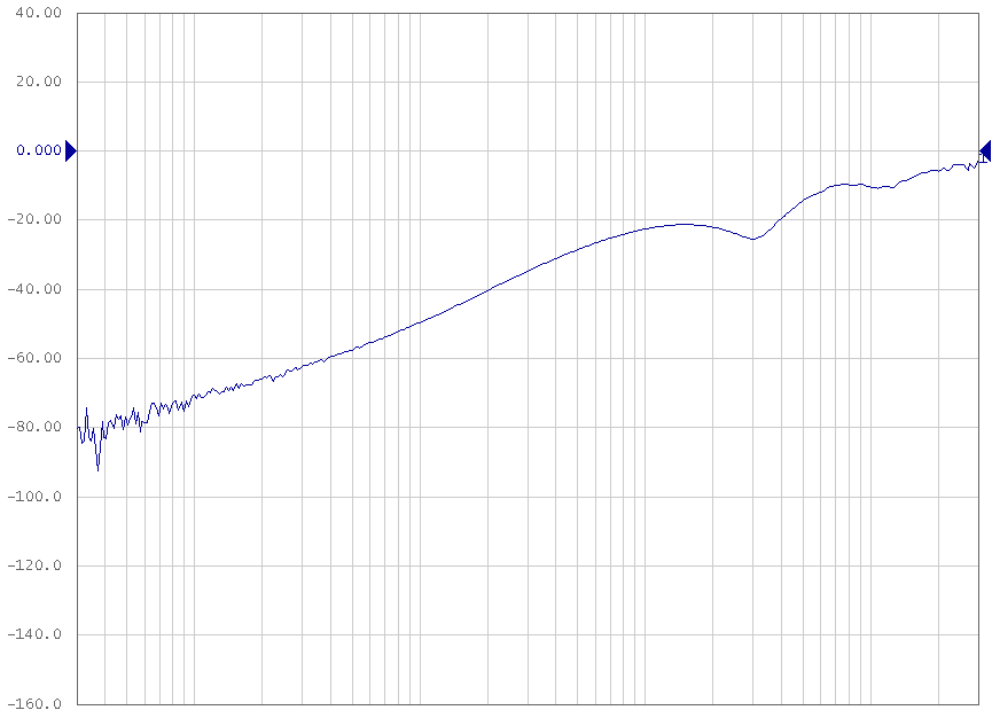
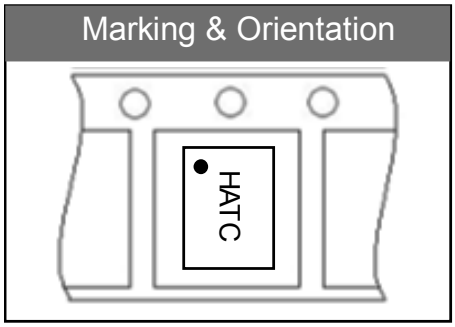


Figure 8. Analog Crosstalk (Each Line)

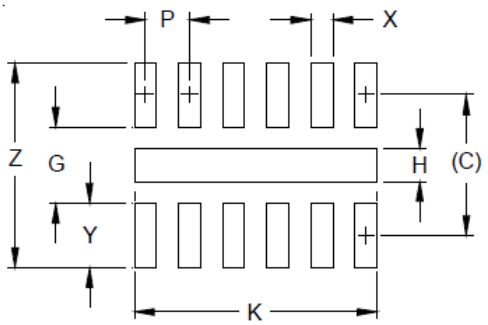
Marking & Orientation



Packaging Information

DEVICE	Q'TY/REEL (PCS)	REEL DIA. (INCH)	Q'TY/BOX (PCS)	Q'TY/CARTON (PCS)
LEFH1701TC-6	3000	7	45000	90K/180K

SLP2513P12 Soldering Pad Layout



Dim.	Millimeters	Inches
C	(1.27)	(0.050)
G	0.69	0.027
H	0.30	0.012
K	2.20	0.087
P	0.40	0.016
X	0.20	0.008
Y	0.58	0.023
Z	1.85	0.073

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