TECH PUBLIC
台舟电子

LXES15AAA1-153

Surface Mount Polymeric ESD Suppressor

www.sot23.com.tw

Features

- Ultra-Low capacitance:0.05pF(typ.)
- Low leakage current(<10nA)
- Fast response time(<1ns)
- Bi-directional,single line protection
- IEC 61000-4-2 (ESD Air): 15kV
- IEC 61000-4-2 (ESD Contact): 8kV

Mechanical Characteristics

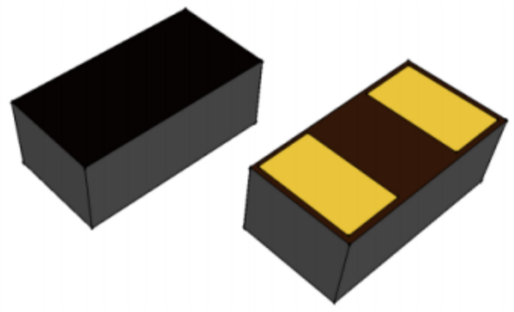
- USB 3.0/3.1
- HDMI 1.3/1.4/2.0
- RF Antenna
- SATA and eSATA Interface

Applications

- Smart Phone/Mobile Internet Device
- Laptop/Desktop Computer
- Bi-directional, single line protection
- Antennas (Cell Phones, GPS…)
- High Speed Ethernet
- USB 3.0 and USB 3.1

Dimensions and Pin Configuration





Absolute Maximum Ratings (Tamb=25°C unless otherwise specified)

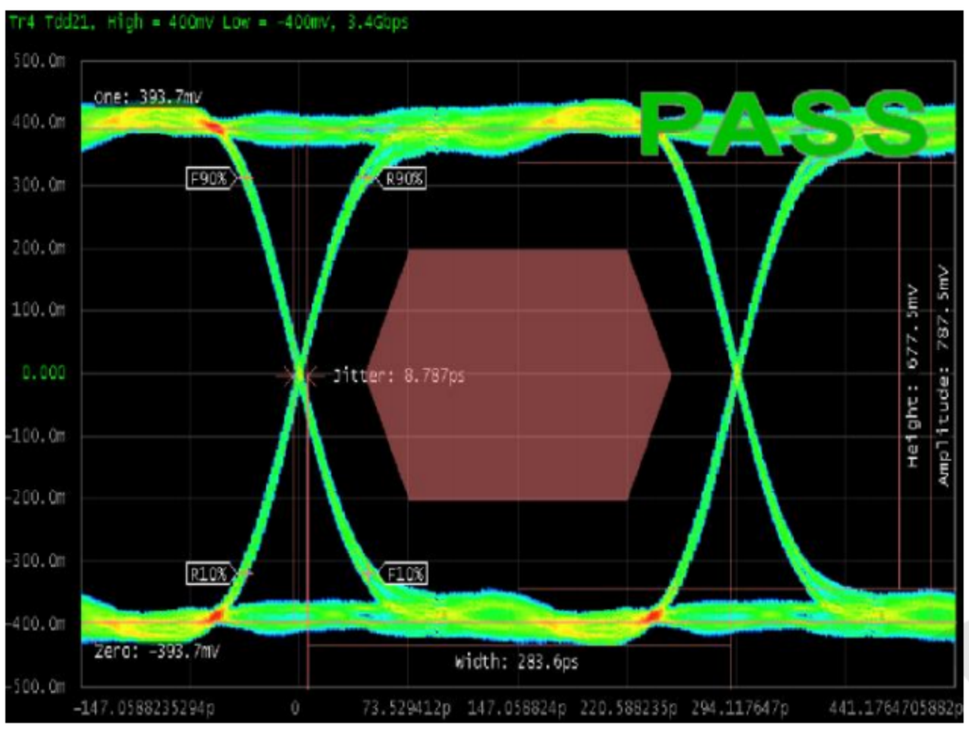
Parameter	Symbol	Value	Unit
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	V_{ESD}	±15 ±8	kV
Operating Temperature Range	T_J	−55 to +125	°C
Storage Temperature Range	Tstg	−40 to +85	°C

Electrical Characteristics (TA=25°C unless otherwise specified)

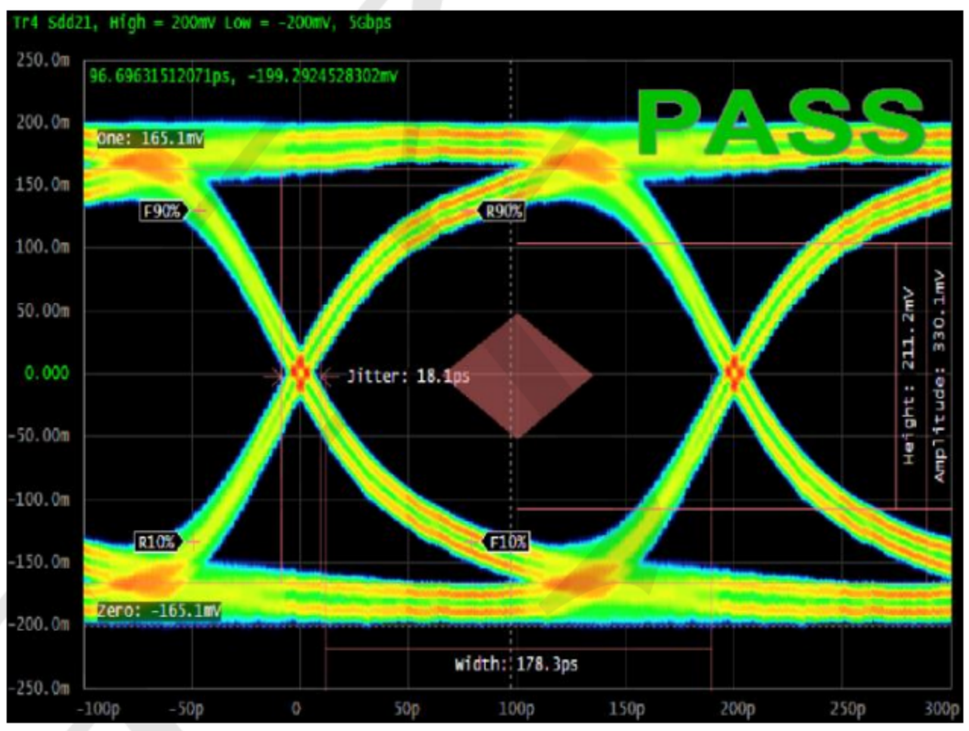
Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Continuous Operating Voltage	V_{DC}			5	V	
Trigger Voltage	V_T		450		V	IEC61000-4-2 8kV contact discharge
Clamping Voltage	V_C		40		V	IEC61000-4-2 8kV contact discharge
Leakage Current	I_L			10	nA	DC 5V shall be applied on component
Capacitance	C_J		0.05		pF	Measured at 10MHz

PROTECTION PRODUCTS
Typical charateristics

HDMI Mask at 3.4 Gbps



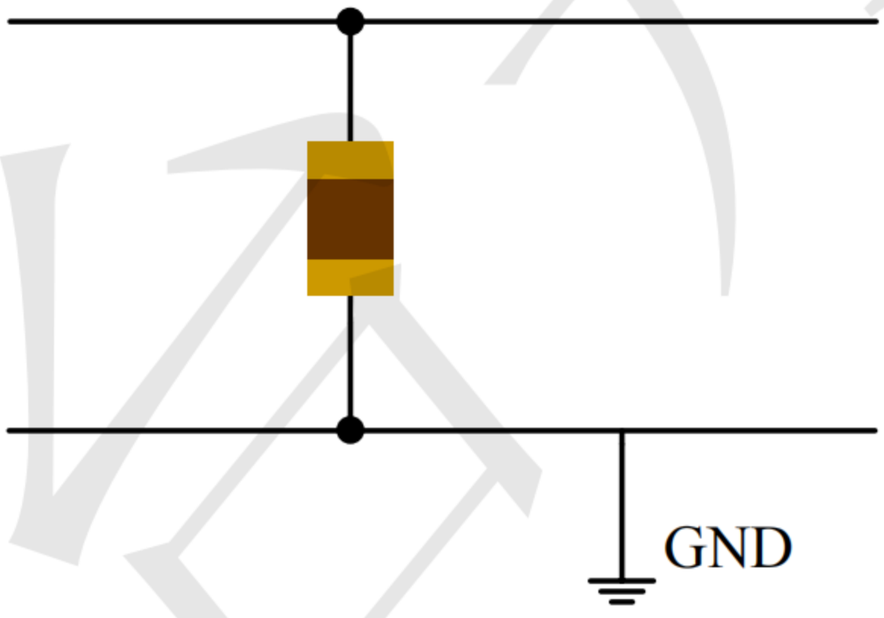
USB3.0 Mask at 5.0 Gbps

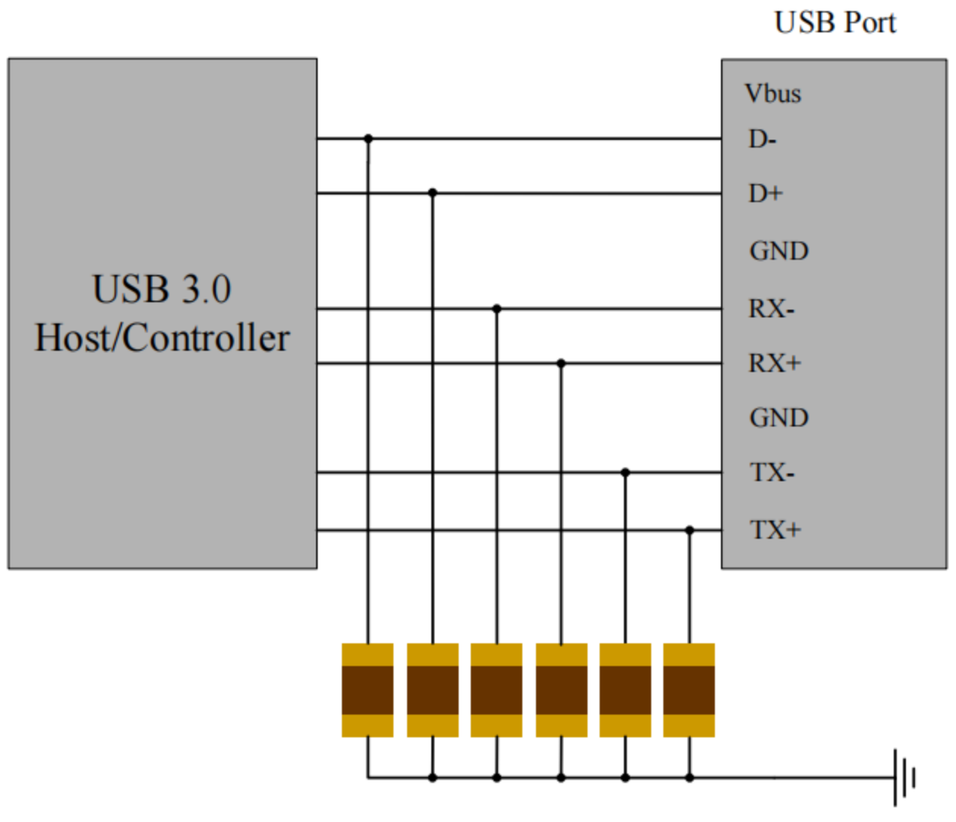


ESD Protection for Signal Line

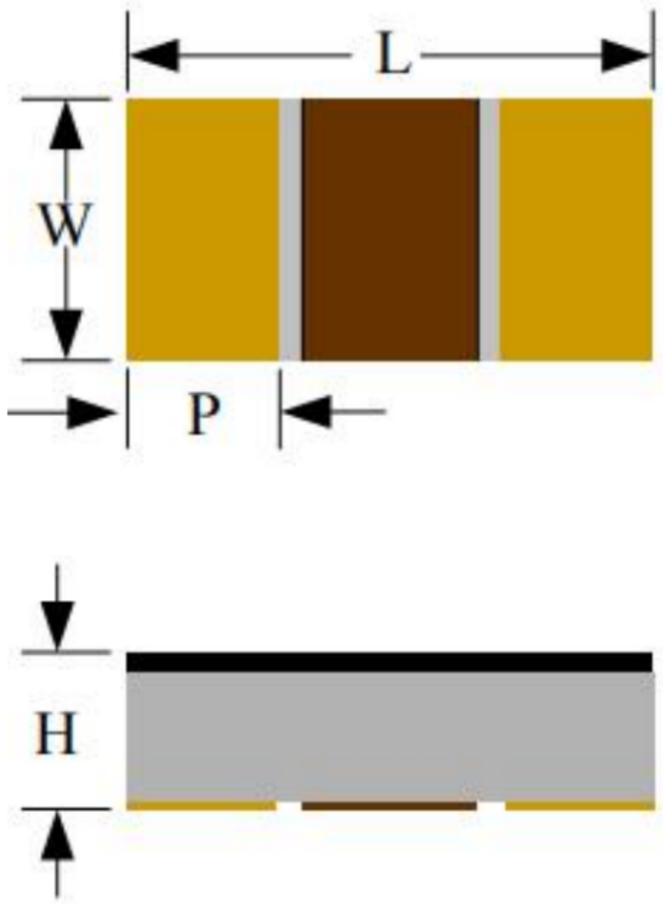
The LXES15AAA1-153 is designed for the protection of one bidirectional data line from ESD damage.

- Place the LXES15AAA1-153 as close to the input terminal or connector as possible .
- Minimize the path length between the LXES15AAA1-153 and the protected signal line.
- Use ground planes whenever possible.

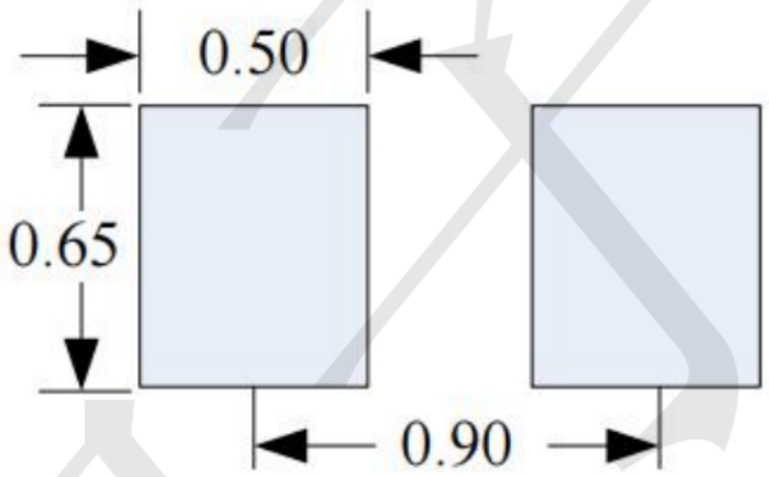




Package Dimension



Recommended Solder Pad Footprint



***Sizes in mm**

Notes：

This solder pad layout is for reference purposes only.

Dimension	Unit: Millimeters	
	Min.	Max.
L	0.90	1.10
W	0.42	0.62
p	0.15	0.35
H	0.25	0.45

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