

Description

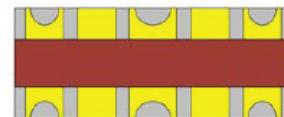
This device is an ultra low capacitance PESD product designed to protect very high speed data interfaces. ESLP2510V05 has a typical capacitance of only 0.05pf (I/O to GND), and it can be used to meet the ESD immunity requirements of IEC 61000-4-2 (15KV air, 8KV contact discharge).



2510 Size
Top layer

Feature

- ESD protection for high speed data lines to
IEC61000-4-2 ESD contact discharge typical 8KV, max 15KV
IEC61000-4-2 ESD air discharge typical 15KV, max 25KV
- Protect four data lines
- Multilayer structure
- Surface mount
- Extremely low capacitance
- Very low leakage current
- Fast response time
- Bi-directional ESD protection
- Lead free solder termination
- The best ESD protection for high frequency, low voltage applications

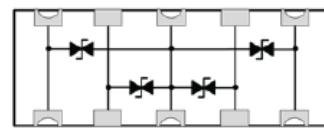


2510 Size
Bottom layer

Application

- High Definition Multi-Media Interface (HDMI)
- Digital Visual Interface (DVI)
- Display Port Interface (DP)
- Unified Display Interface (UDI)
- Mobile Display Digital Interface (MDDI)
- Gigabit Ethernet
- USB2.0 and USB3.0
- IEEE1394 interface

Caution: This component is designed for signal line protection only, not intended to be used under bias, not for application with a power line.



Schematic Diagram

Absolute Maximum Ratings

Parameter	Symbol	Value	Unit
Maximum Contact discharge voltage Per IEC61000-4-2	—	15KV	V
Maximum Air discharge voltage Per IEC61000-4-2	—	25KV	V
Maximum Operating temperature	T _{OPR}	-40 to +90	°C
Maximum Storage temperature	T _{STG}	-55 to +125	°C
Maximum lead temperature for soldering during 10s	T _L	260	°C

Electrical characteristics ($T_A = 25^\circ\text{C}$)

Electrical Characteristics						
Parameter	Symbol	Test Conditions	Min	Typ	Max	Units
Continuous operating voltage	V _{DC}	—	—	—	5	V
Trigger voltage	V _T	IEC61000-4-2 8KV contact discharge	—	200	—	V
Clamping voltage	V _C	IEC61000-4-2 8KV contact discharge	—	20	—	V
Leakage current	I _L	DC 5V shall be applied on component	—	0.10	100	nA
Capacitance	C _P	V _R = 0V, f = 1MHz	—	0.05	0.30	pF
ESD pulse withstand	Pulses	IEC61000-4-2 8KV contact discharge	100	—	—	—

Notes: 1. Trigger and clamping voltage are measured per IEC 61000-4-2, 8KV contact discharge method.

2. After reliability tests such as high Temp storage, Temp cycles, continuous ESD strike etc, the maximum leakage current is less than 10uA.

-