



Description

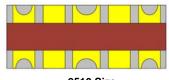
This device is an ultra low capacitance PESD product designed to protect very high speed data interfaces. ESLP2510V05 has a typical capacitance of only 0.05pf (I/O to GND), and it can be used to meet the ESD immunity requirements of IEC 61000-4-2 (15KV air, 8KV contact discharge).

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

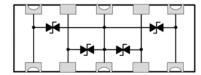


2510 Size Bottom layer

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	4	25KV	V	
Maximum Operating temperature	T _{OPER}	-40 to +90	$^{\circ}$ C	
Maximum Storage temperature	T _{STG}	-55 to +125	$^{\circ}$ C	
Maximum lead temperature for soldering during 10s	T_L	260	$^{\circ}$	

Electrical characteristics (T_A =25°C)

Electrical Characteristics									
Parameter	Symbol	Test Conditions	Min	Тур	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.