

Description

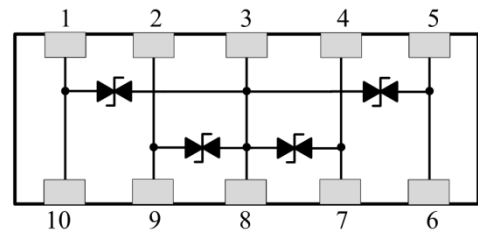
- This device is an ultra low capacitance ESD product designed to protect very high speed data interfaces. GESDPSD2510V05 has a typical capacitance of only 0.15pF, and it can be used to meet the ESD immunity requirements of IEC61000-4-2 (15KV air, 8KV contact discharge).



2510

Features

- ESD protection for high speed data lines to IEC61000-4-2
- ESD contact discharge typical 8KV, max 15KV
- ESD air discharge typical 15KV, max 25KV
- 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



Schematic Diagram

Applications

- 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.

Absolute Maximum Ratings

Parameter	Symbol	Value	Unit
Maximum Contact Discharge Voltage Per IEC61000-4-2	-	15	KV
Maximum Air Discharge Voltage Per IEC61000-4-2	-	25	KV
Maximum Operating Temperature	T _{OPER}	-55 to +125	°C
Maximum Storage Temperature	T _{STG}	-55 to +125	°C
Maximum Lead Temperature for Soldering During 10s	T _L	260	°C

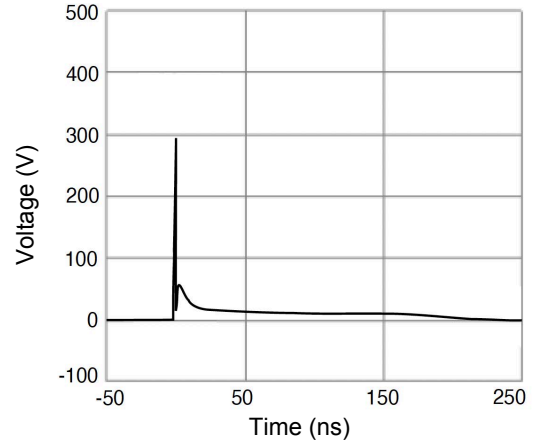
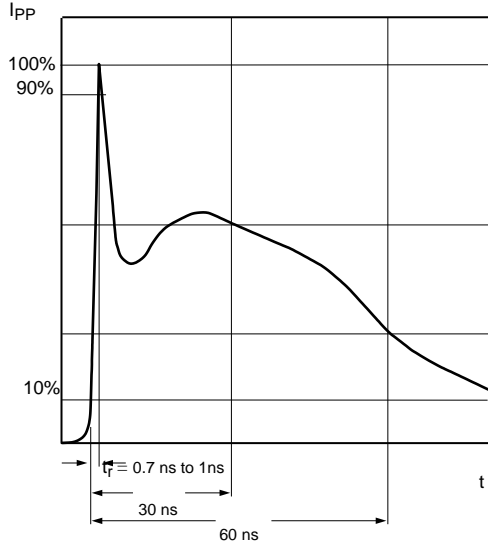
Electrical Characteristics (T_A=25°C unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Rated Voltage	V _R	-	-	-	5	V
Trigger Voltage	V _T	IEC61000-4-2 8KV Contact Discharge	-	300	-	V
Clamping Voltage	V _C	IEC61000-4-2 8KV Contact Discharge	-	35	-	V
Leakage Current	I _L	DC 5V Shall be Applied on Component	-	0.01	0.10	uA
Capacitance	C _P	V _R =0V, F=1MHz	-	0.15	-	pF
ESD Pulse Withstand	-	IEC61000-4-2 8KV Contact Discharge	1000	-	-	pulses

Notes:

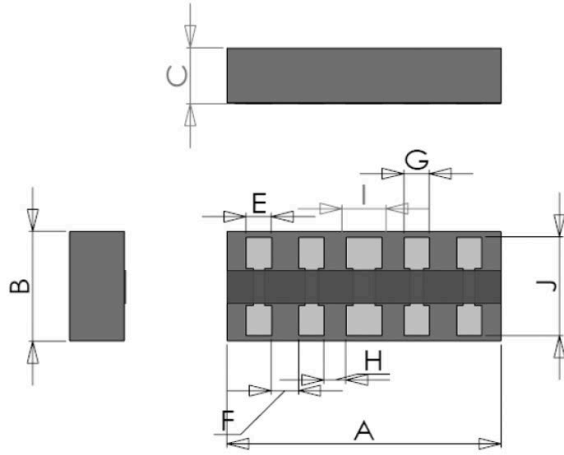
1. Trigger and clamping voltage are measured per IEC 61000-4-2, 8KV contact discharge method.
2. After reliability tests such as high temp storage, temp cycles, continuous ESD strike etc, the maximum leakage current is less than 10uA.

ESD Clamping Test Waveforms



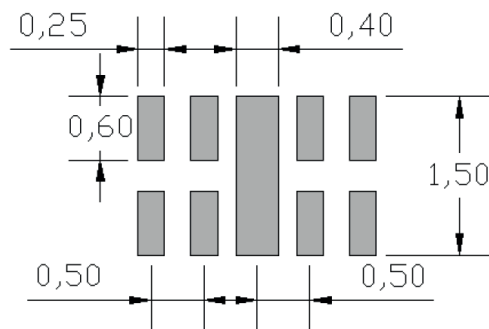
ESD Wave after Clamping

Product Outline Dimensions (2510)



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	2.40	2.60	0.094	0.102
B	0.90	1.10	0.035	0.043
C	0.40	0.50	0.016	0.020
E	0.21	0.25	0.008	0.010
F	0.23	0.27	0.009	0.011
G	0.21	0.25	0.008	0.010
H	0.18	0.22	0.007	0.009
I	0.315	0.355	0.012	0.014
J	0.89	0.93	0.035	0.037

Recommended Pad Layout



Notes:

1. Controlling dimension: in millimeters
2. Solder thickness 0.08 to 0.12mm

Order Information

MPN	Package	Carrier	Quantity	HSF Status
GESDPSD2510V05	2510	Tape & Reel	3,000pcs / Reel	RoHS Compliant