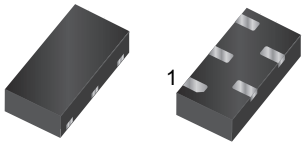
SESUC5VD2010-5U

Features

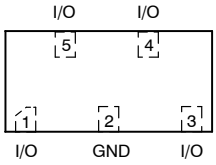
- DFN2010 package
- Protects up to 4-Lines operating at 5V
- R2R + Zener technology
- Low clamping voltage
- Low leakage current
- Ultra low capacitance (0.15pF typical I/O to I/O)
- ESD Protection for high-speed data lines to:
  IEC 61000-4-2 ±8KV contact ±15KV air
- RoHS compliant

Applications

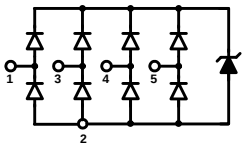
- USB 3.0/3.1
- HDMI 1.4/2.0, Display Port 1.3, eSATA
- Unified Display Interface (UDI)
- Digital Visual Interface (DVI)
- High speed serial interfaces



DFN2010



Pin Configuration



Schematic Diagram

Absolute Maximum Ratings

(T_A=25℃, Unless otherwise specified.)

Parameter	Symbol	Value	Unit
Junction Temperature	T_J	-55 to +125	℃
Storage Temperature	T_{STG}	-55 to +150	℃
Lead Soldering Temperature	T_L	260 (10sec.)	℃
Peak Pulse Current (t_P = 8/20μS)	I_{PP}	3	A
IEC 61000-4-2 Contact (ESD)	VESD	±8	kV
IEC 61000-4-2 Air (ESD)	VESD	±15	kV

Electrical Characteristics

(T_A=25℃, Unless otherwise specified.)

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Reverse stand-off Voltage	V_{RWM}				5	V
Reverse Breakdown Voltage	V_{BR}	I_T=1mA	6	7.2	9.5	V
Reverse Leakage Current	I_R	V_R=5V		0.01	1	μA
Clamping Voltage (IEC 61000-4-5)	V_C	I_{PP}=3A，T_P=8/20μS		10		V
Trigger Voltage (IEC 61000-4-2)	V_T	V_{ESD} =8kV		135		V
Clamping Voltage (IEC 61000-4-2)	V_C	V_{ESD} =8kV		20		V
Junction Capacitance	C_J	V_R=0V,f=1MHz, I/O to I/O		0.15		pF
	C_J	V_R=0V,f=1MHz, I/O to GND		0.35		pF

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Typical Characteristic Curves

Fig.1 Pulse Waveform-ESD(IEC61000-4-2)

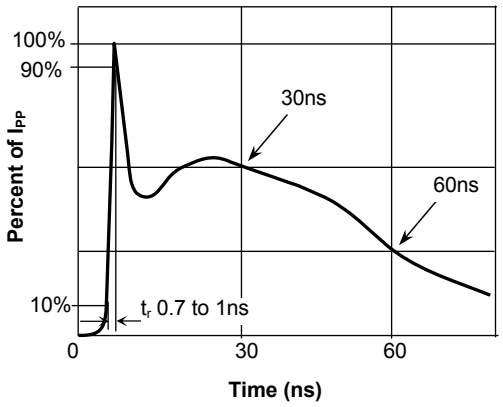


Fig.3 IEC61000-4-2 +8kV Contact ESD Clamping Waveform

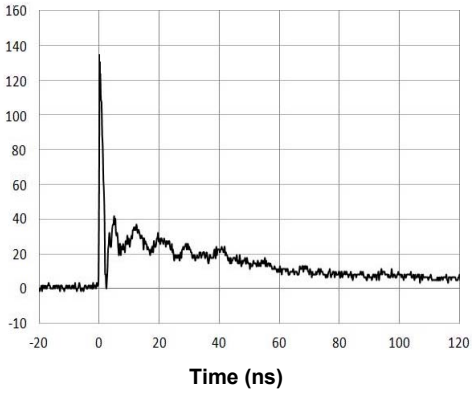


Fig.5 Eye Diagram - USB3.1 at 10Gbps per channel (with SESUC5VD2010-5U)

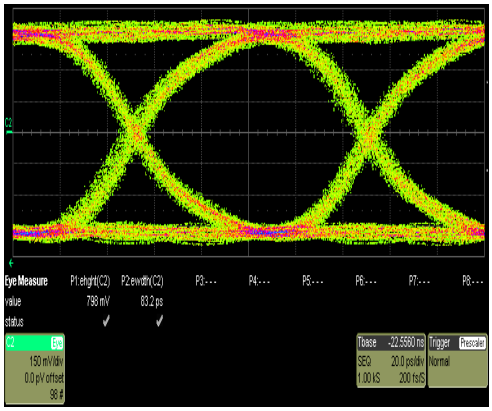
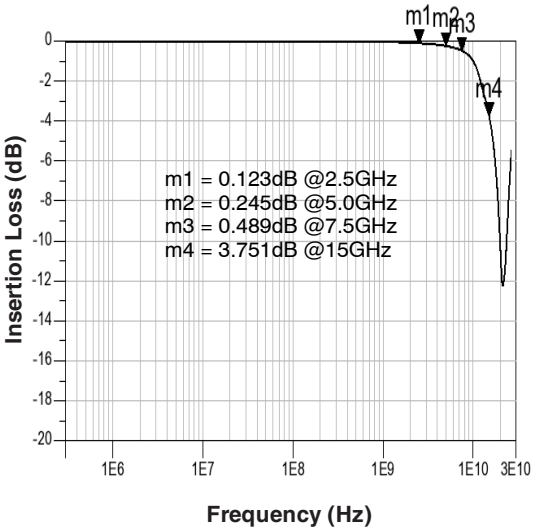
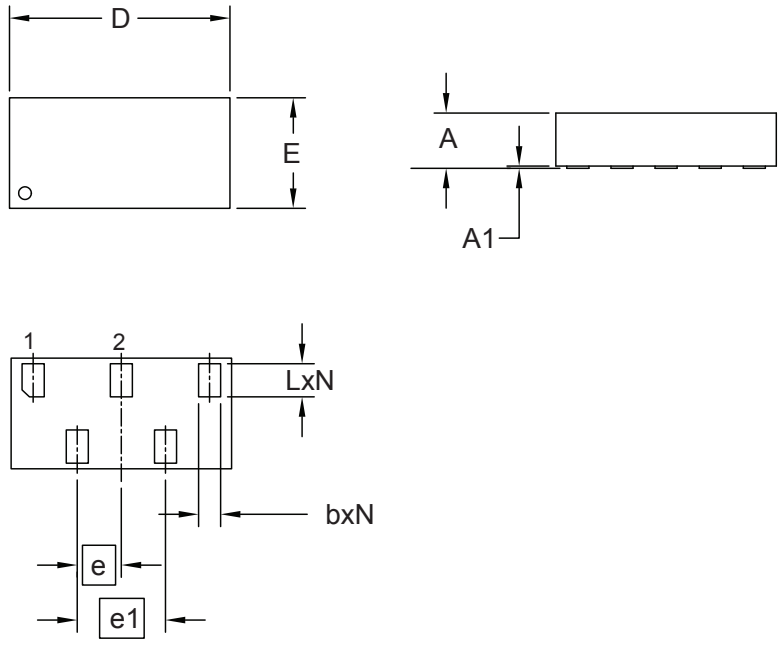


Fig.6 Insertion Loss S21 - I/O to I/O



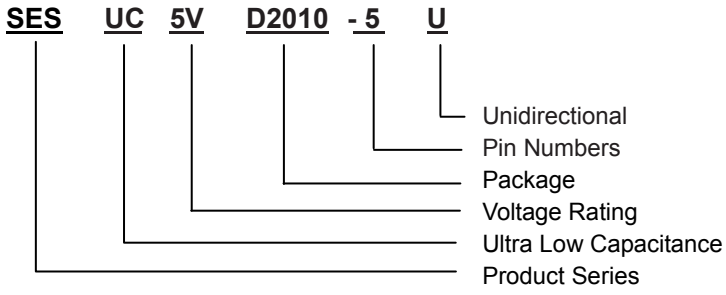
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Product Dimensions

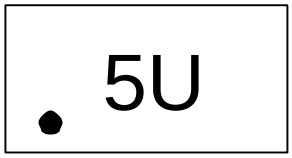


Dim	Millimeters		
	Min	Nom	Max
A	0.45	0.50	0.55
A1	0.00	0.02	0.05
b	0.15	0.20	0.25
D	1.95	2.00	2.05
E	0.95	1.00	1.05
e	0.40 BSC		
e1	0.80 BSC		
L	0.25	0.30	0.35
N	5		

Part Number System



Marking



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Order Information

Device	Package	Carrier	Quantity	HSF Status
SESUC5VD2010-5U	DFN2010	Tape & Reel (7")	3000pcs / Reel	RoHS Compliant

Revision history

Date	Revision	Description of changes
26-May-2016	**A0**	**First issue**

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SESUC5VD882SY-2B ESDPSD2510V12 SESUC3V3D2510-10U ESDPSA0201V24 ESDPSA0603V09
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