

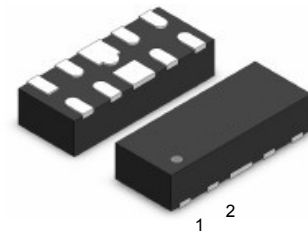
Features

- DFN2510 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

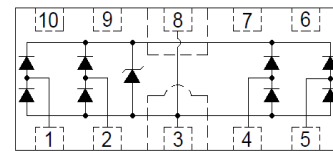
Applications

- 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

SESUC5VD2510-10U



DFN2510



Schematic Diagram

Absolute Maximum Ratings

(T_A=25°C, Unless otherwise specified.)

Parameter	Symbol	Value	Unit
Junction Temperature	T _J	-55 to +125	°C
Storage Temperature	T _{STG}	-55 to +150	°C
Lead Soldering Temperature	T _L	260 (10sec.)	°C
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°C, 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

Typical Characteristic Curves

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

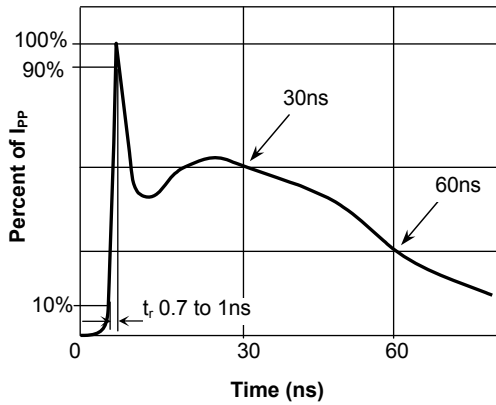


Fig.3 IEC61000-4-2 +8kV Contact ESD Clamping Waveform

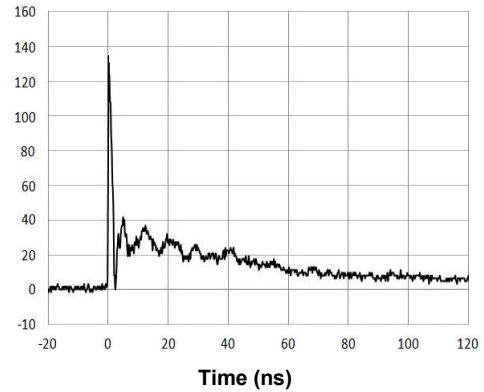


Fig.5 Eye Diagram - USB3.1 at 10Gbps per channel (with SESUC5VD2510-10U)

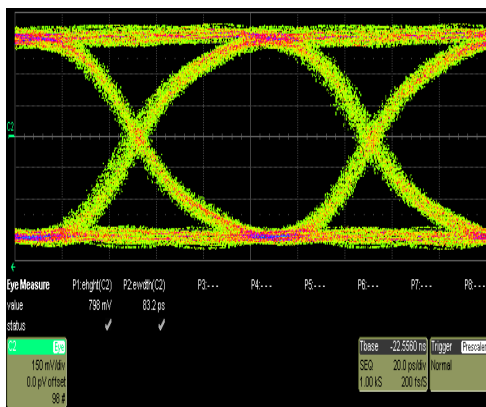
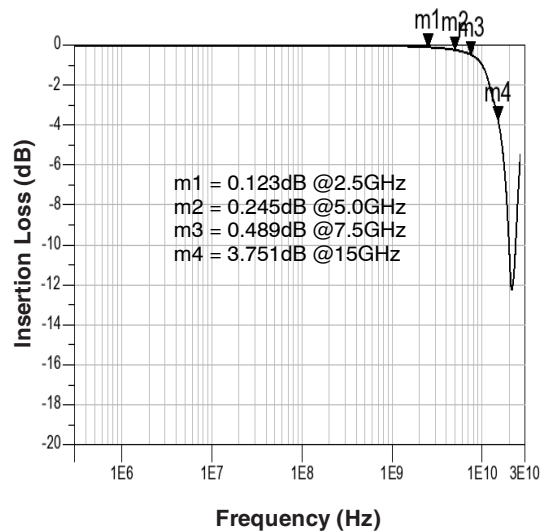
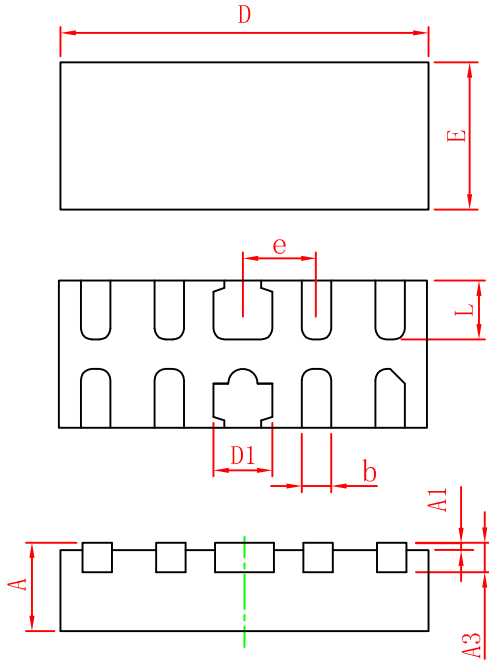


Fig.6 Insertion Loss S21 - I/O to I/O

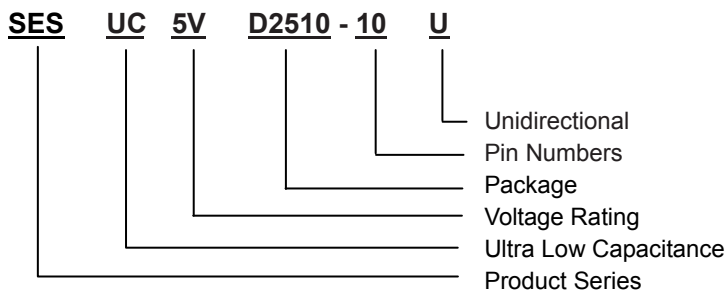


Product Dimensions

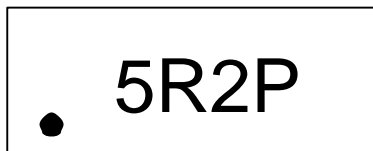


Symbol	Dimensions in millimeters		
	Min	Nom	Max
A	0.45	0.50	0.55
A1	-	0.02	0.05
A3	0.10	0.15	0.20
D	2.45	2.50	2.55
E	0.95	1.00	1.05
D1	0.35	0.40	0.45
b	0.15	0.20	0.25
e	0.50BSC		
L	0.35	0.40	0.45

Part Number System



Marking



Order Information

Device	Package	Carrier	Quantity	HSF Status
SESUC5VD2510-10U	DFN2510	Tape & Reel (7")	3000pcs / Reel	RoHS Compliant

Revision history


Date	Revision	Description of changes
26-January-2016	A0	First issue

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