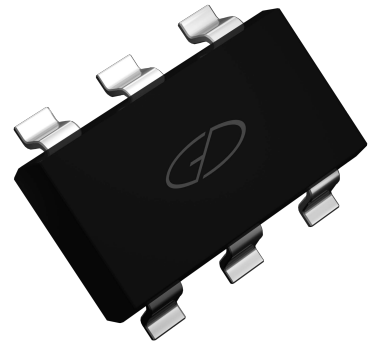


GSESLC5VT236H-6U

Ultra Low Capacitance ESD TVS Array

Features

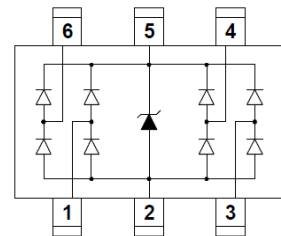
- 110 Watts peak pulse power ($T_p = 8/20\mu s$)
- SOT23-6 package
- Low clamping voltage
- Low leakage current
- Ultra low capacitance
- ESD Protection for high-speed data lines to:
 - IEC 61000-4-2 $\pm 30kV$ contact $\pm 30kV$ air
 - IEC 61000-4-4 (EFT) 40A (5/50ns)
 - IEC 61000-4-5 (Lightning) 8A (8/20 μs)
- RoHS compliant



Package: SOT-23-6L

Applications

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



Schematic Diagram

Absolute Maximum Ratings

($T_A=25^\circ C$ unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power ($T_P=8/20\mu S$)	P_{PP}	110	W
Peak Pulse Current ($t_P = 8/20\mu S$)	I_{PP}	8	A
Junction Temperature	T_J	-55 to +150	$^\circ C$
Storage temperature	T_{STG}	-55 to +150	$^\circ C$

Electrical Characteristics

($T_A=25^\circ C$ 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	-	-	V
Reverse Leakage Current	I_R	$V_R=5V$	-	-	1	μA
Clamping Voltage	V_C	$I_{PP}=2.5A, T_P=8/20\mu S$	-	9.8	-	V
		$I_{PP}=5.5A, T_P=8/20\mu S$	-	11.5	-	V
		$I_{PP}=8A, T_P=8/20\mu S$	-	14	-	V
Trigger Voltage (IEC61000-4-2)	V_T	$V_{ESD}=8kV, \text{contact}$	-	97	-	V
Clamping Voltage (IEC61000-4-2)	V_C	$V_{ESD}=8kV, \text{contact}$	-	17	-	V
Junction Capacitance	C_J	$V_R=0V, f=1MHz, I/O \text{ to } I/O$	-	0.2	0.4	pF
	C_J	$V_R=0V, f=1MHz, I/O \text{ to } GND$	-	0.4	0.8	pF

Typical Characteristic Curves

Fig.1 Peak Pulse Power Rating Curve

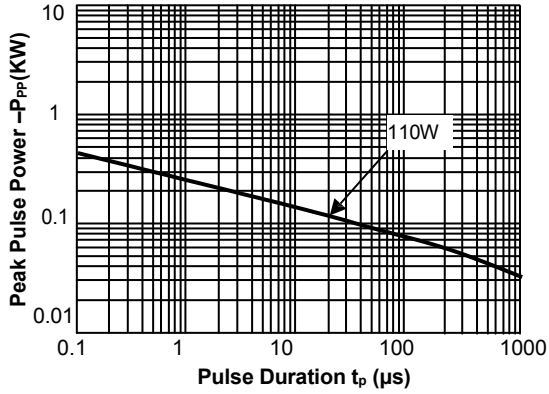


Fig.2 Pulse Derating Curve

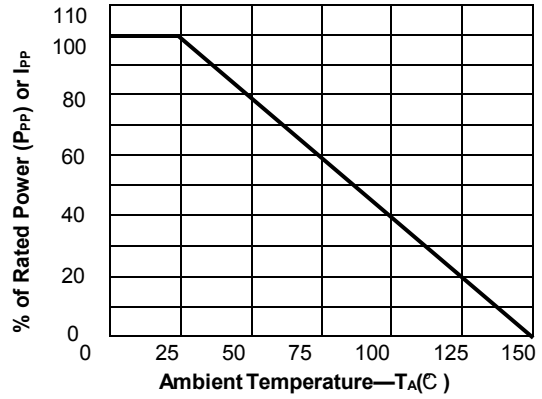


Fig.3 Pulse Waveform-8/20μs

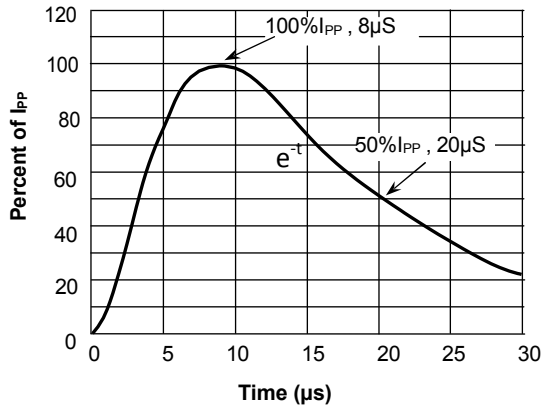


Fig.4 Pulse Waveform-ESD(IEC61000-4-2)

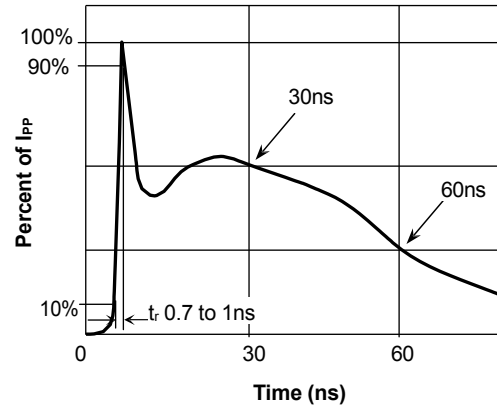


Fig.5 Eye Diagram - HDMI mask at 3.4Gbps per channel (with GSESLC5VT236H-6U)

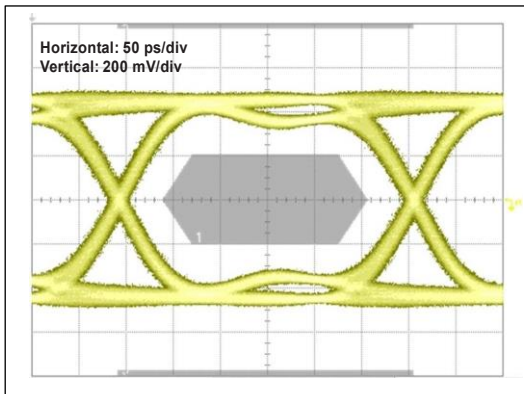
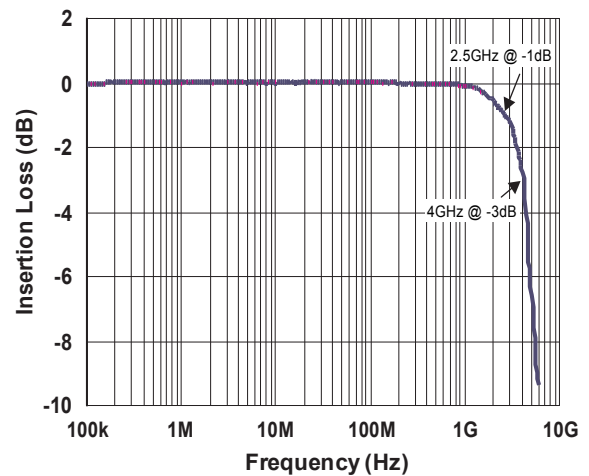


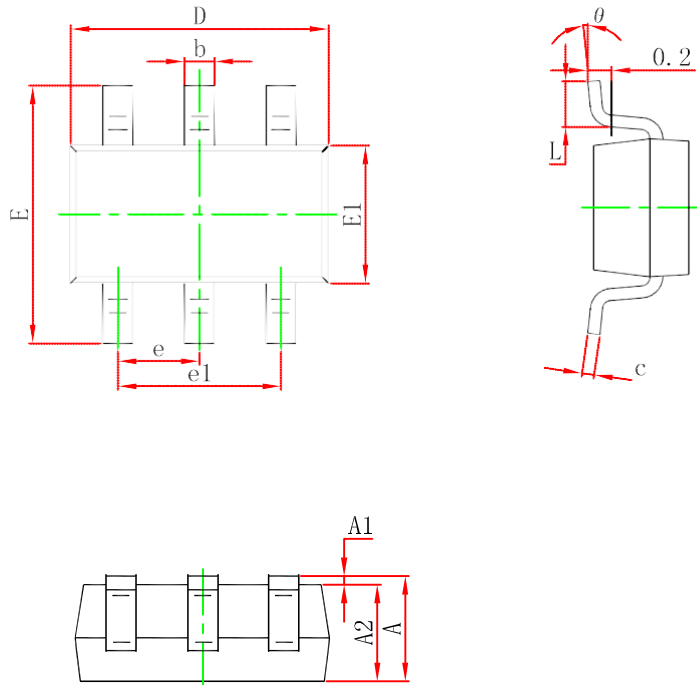
Fig.6 Insertion Loss S21 - I/O to GND



GSESLC5VT236H-6U
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Product Dimensions

SOT-23-6L



Symbol	Dimensions in millimeters		Dimensions in inches	
	Min	Max	Min	Max
A	1.050	1.250	0.041	0.049
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.041	0.045
b	0.300	0.500	0.012	0.020
c	0.100	0.200	0.004	0.008
D	2.820	3.020	0.111	0.119
E1	1.500	1.700	0.059	0.067
E	2.650	2.950	0.104	0.116
e	0.950(BSC)		0.037(BSC)	
e1	1.800	2.000	0.071	0.079
L	0.300	0.600	0.012	0.024
θ	0°	8°	0°	8°

Order Information

Device	Package	Carrier	Quantity	HSF Status
GSESLC5VT236H-6U	SOT-23-6L	Tape & Reel	3000pcs / Reel	RoHS Compliant