

### Features

- 45Watts peak pulse power ( $t_p = 8/20\mu s$ )
- SOT23-6 package
- Solid-state silicon-avalanche technology
- Low clamping voltage
- Low leakage current
- Low capacitance ( $C_j = 0.3pF$  typ. IO to IO)
- Protection one data/power line to:
- IEC 61000-4-2  $\pm 12kV$  contact  $\pm 15kV$  air
- IEC 61000-4-4 (EFT) 40A(5/50ns)
- IEC 61000-4-5 (Lightning) 3.5A(8/20 $\mu s$ )

### SOT23-6



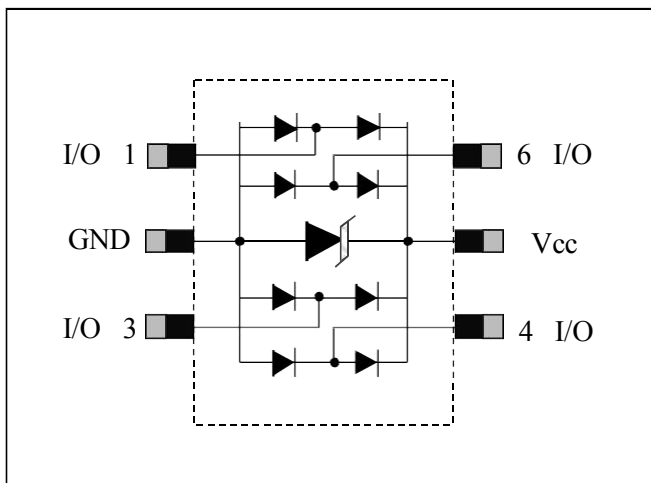
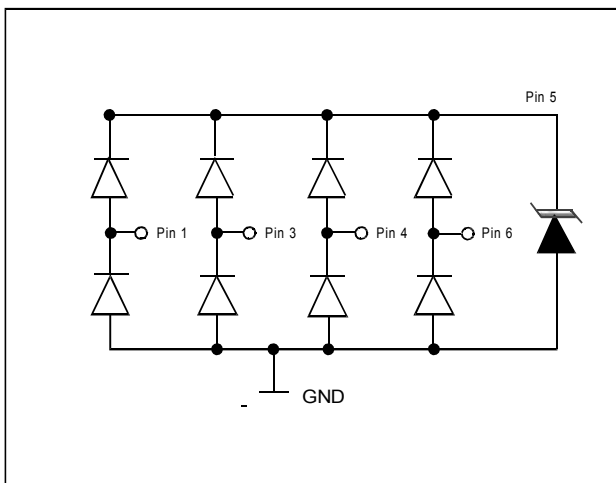
### Applications

- Ethernet
- Digital Visual Interface (DVI)
- USB2.0
- Notebook and PC Computers

### Mechanical Data

- SOT23-6 package
- Molding compound flammability rating: UL 94V-0
- Packaging: Tape and Reel
- RoHS/WEEE Compliant

### Schematic & PIN Configuration





**Absolute Maximum Rating**

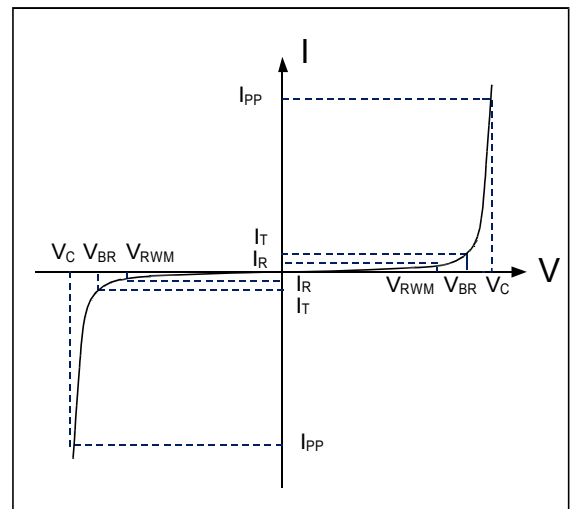
Rating	Symbol	Value	Units
Peak Pulse Power ( $t_p = 8/20\mu s$ )	$P_{PP}$	45	Watts
Peak Pulse Current ( $t_p = 8/20\mu s$ )(note1)	$I_{PP}$	3.5	A
ESD per IEC 61000-4-2(Air)	$V_{ESD}$	15	kV
ESD per IEC 61000-4-2(Contact)		12	
Lead Soldering Temperature	$T_L$	260(10seconds)	$^{\circ}C$
Junction Temperature	$T_J$	-55 to +125	$^{\circ}C$
Storage Temperature	$T_{STG}$	-55 to +125	$^{\circ}C$

**Electrical Characteristics**

Parameter	Symbol	Conditions	Min	Typical	Max	Units
Reverse Stand-Off Voltage	$V_{RWM}$				5.0	V
Reverse Breakdown Voltage	$V_{BR}$	$I_T = 1mA$	6	6.8	8.5	V
Reverse Leakage Current	$I_R$	$V_{RWM} = 5V, T = 25^{\circ}C$		50	500	nA
Peak Pulse Current	$I_{PP}$	$t_p = 8/20\mu s$			3.5	A
Clamping Voltage	$V_C$	$I_{PP} = 3.5A, t_p = 8/20\mu s$		10	13	V
Junction Capacitance	$C_J$	$V_R = 0V, f = 1MHz$ IO to IO		0.2	0.25	pF
		$V_R = 0V, f = 1MHz$ IO to GND		0.36	0.5	

**Electrical Parameters ( $T_A = 25^{\circ}C$  unless otherwise noted)**

Symbol	Parameter
$I_{PP}$	Maximum Reverse Peak Pulse Current
$V_C$	Clamping Voltage @ $I_{PP}$
$V_{RWM}$	Working Peak Reverse Voltage
$I_R$	Maximum Reverse Leakage Current @ $V_{RWM}$
$V_{BR}$	Breakdown Voltage @ $I_T$
$I_T$	Test Current



Typical Characteristic Curves

Fig.1 Peak Pulse Power Rating Curve

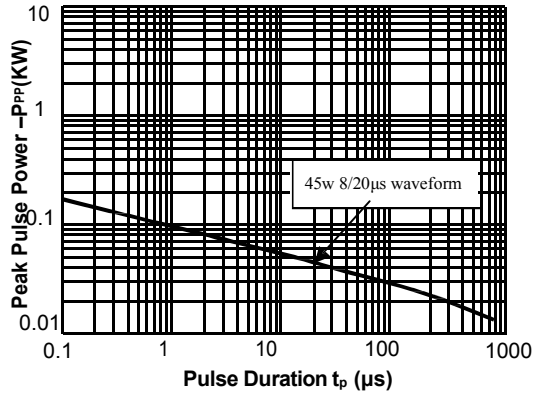


Fig.2 Pulse Derating Curve

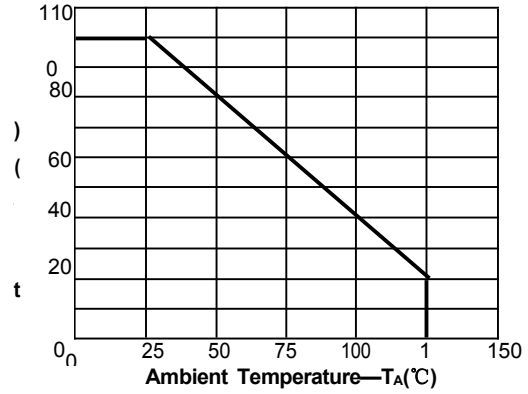


Fig.3 PulseWaveform-8/20μs

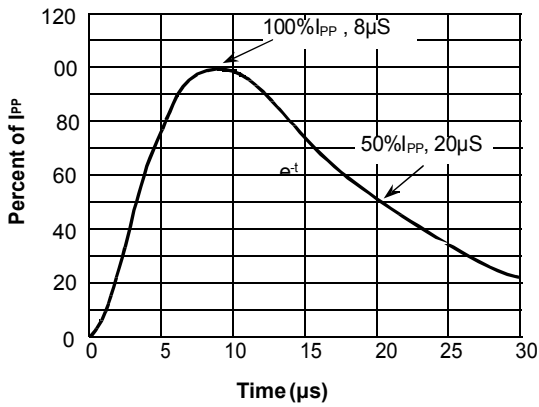


Fig.4 PulseWaveform-ESD(IEC61000-4-2)

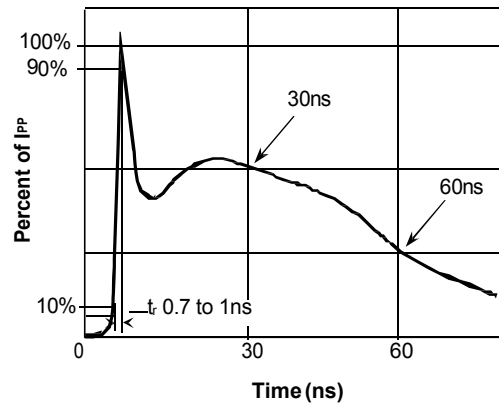


Fig.5 Eye Diagram - HDMI mask at 3.4Gbps per channel

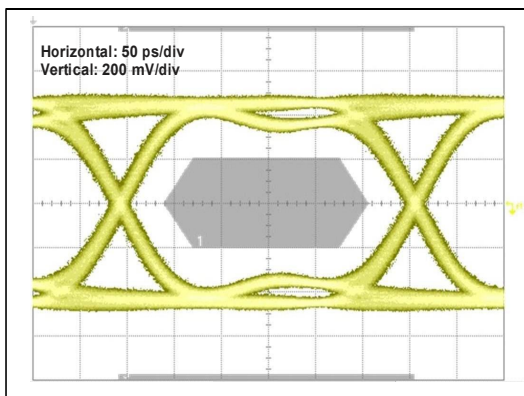
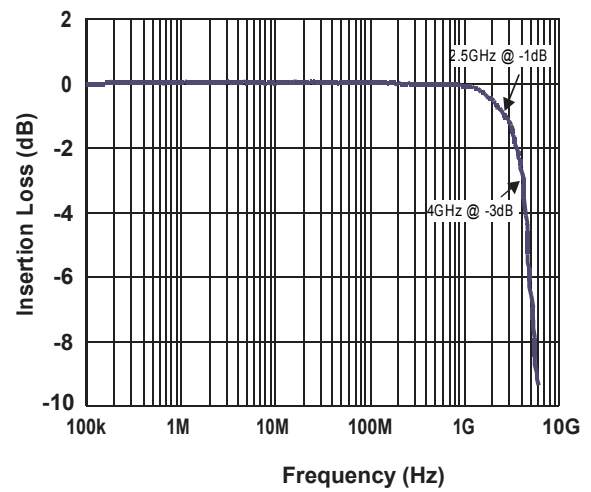
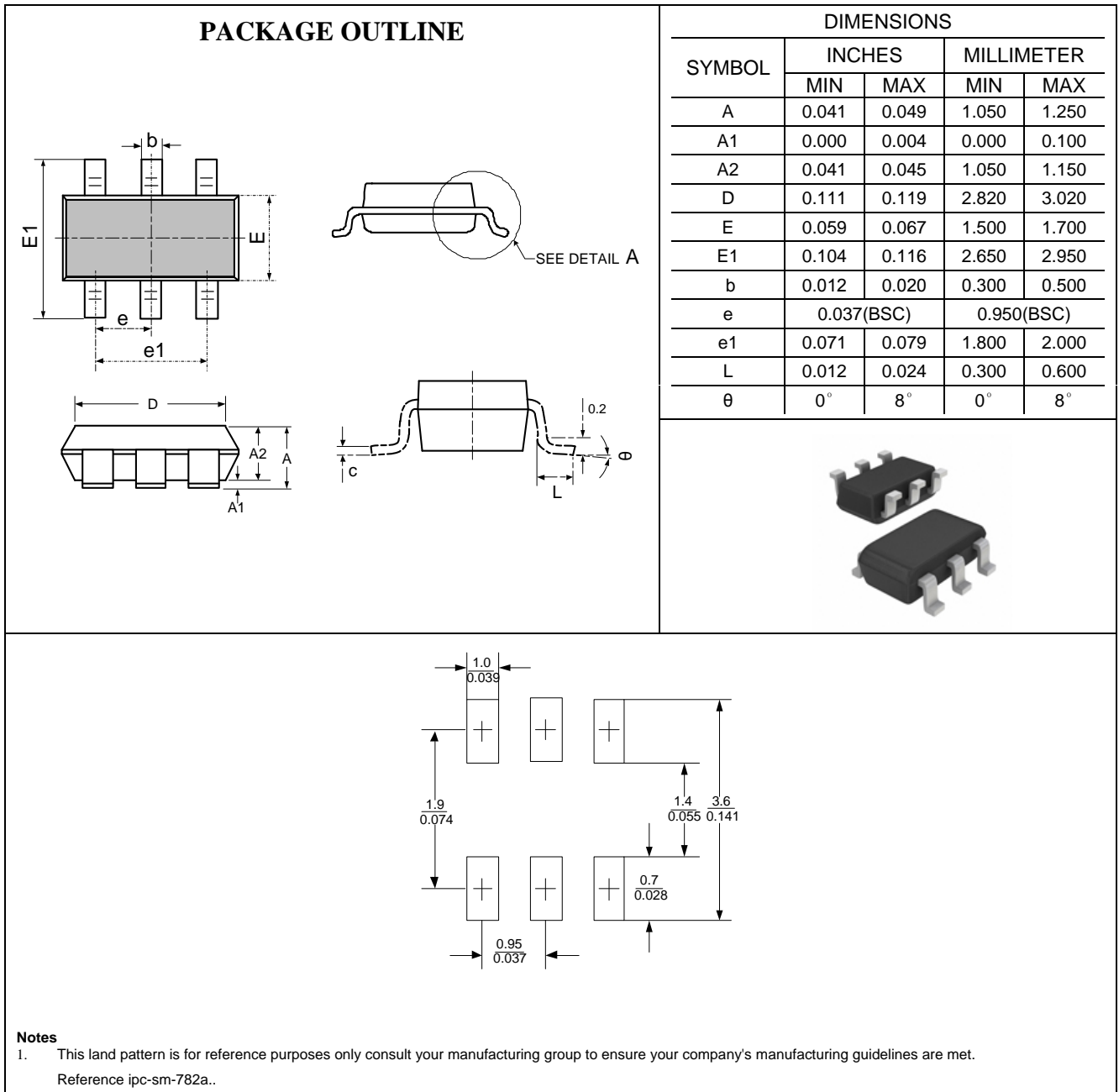


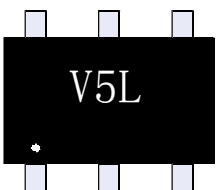
Fig.6 Insertion Loss S21 - I/O to GND



Outline Drawing – SOT23-6



Marking



Ordering information

Order code	Package	Base qty	Delivery mode
LXE236F5V0U	SOT23-6	3K	Tape and reel