



FEATURES

- Transient protection for high-speed data lines
IEC 61000-4-2(ESD) $\pm 25\text{KV(Air)}$
 $\pm 20\text{KV(Contact)}$
IEC 61000-4-4(EFT)40A(5/50ns)
Cable Discharge Event(CDE)
- Package optimized for high-speed lines
- Ultra-small package(2.5mm*1.0mm*0.50mm)
- Protects four data lines
- Low capacitance:0.2pF for each channel
- Low leakage current
- Low clamping voltage
- Each I/O pin can withstand over 1000 ESD strikes for $\pm 8\text{KV}$ contact discharge

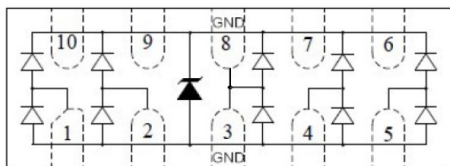
MACHANICAL DATA

- DFN2510 package
- Flammability Rating: UL 94V-0
- Terminal: Matte tin plated.
- Packaging: Tape and Reel
- High temperature soldering guaranteed:260°C/10s
- Reel size: 7 inch

ORDERING INFORMATION

- Device: LXE2510F5V0U
- Package: DFN2510
- Marking: T54SP
- Material: Halogen free
- Packing: Tape & Reel
- Quantity per reel: 3,000pcs

PIN CONFIGURATION



DESCRIPTION

LXE2510F5V0U is an ultra-low capacitance Transient Voltage Suppressor (TVS) designed to protection for high-speed data interfaces. With typical capacitance of 0.2pF only, LXE2510F5V0U is designed to protest parasitic-sensitive systems against over-voltage and over-current transient events. It complies with IEC 61000-4-2 (ESD), Level 4($\pm 15\text{KV}$ air, $\pm 8\text{KV}$ contact discharge), IEC61000-4-4 (electrical fast transient-EFT) (40A, 5/50ns),very fast charged device model (CDM)ESD and cable discharge event(CDE),etc.

LXE2510F5V0U uses ultra-small DFN2510 package. Each LXE2510F5V0U device can protect four high-speed data lines. The combined features of ultra-low capacitance, ultra-small size and high ESD robustness make LXE2510F5V0U ideal for high-speed data ports and high-frequency lines (e.g., HDMI &DVI) applications. The low clamping voltage of the LXE2510F5V0U guarantees a minimum stress on the protected IC.

APPLICATIONS

- Serial ATA
- PCI Express
- Desktops, Servers and Notebooks
- MDDI Ports
- USB 2.0/3.0 and Data Line Protection
- Display Ports
- High Definition Multi-Media Interface (HDMI)
- Digital Visual Interface (DVI)

PACKAGE OUTLINE





ABSOLUTE MAXIMUM RATING

Symbol	Parameter	Value	Units
P _{PP}	Peak Pulse Power(8/20μs)	100	W
V _{ESD}	ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	±25 ±20	kV
T _{OPT}	Operating Temperature	-55/+125	°C
T _{STG}	Storage Temperature	-55/+150	°C

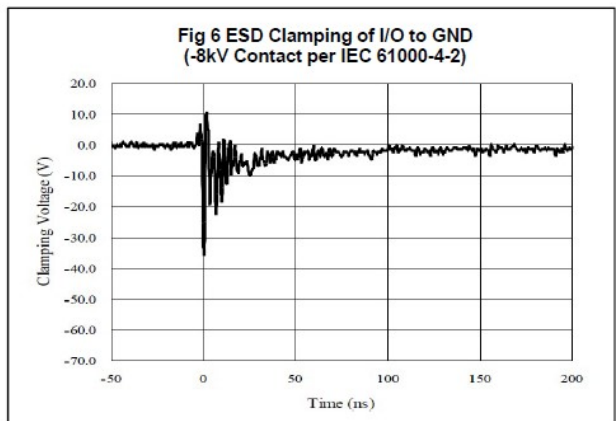
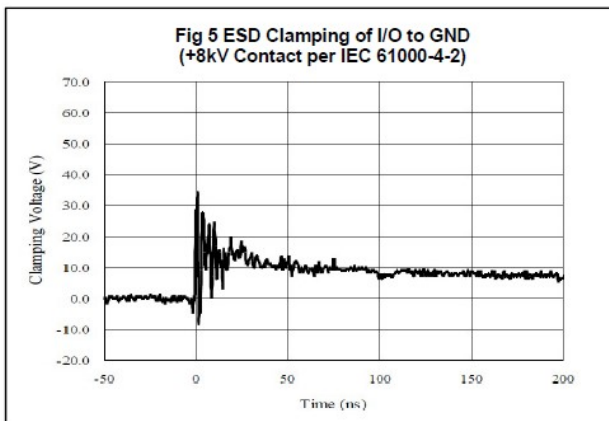
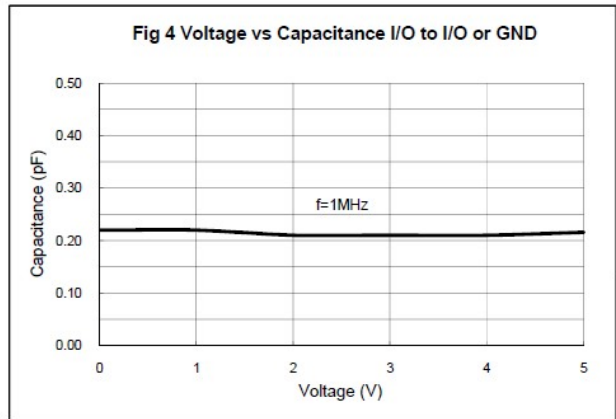
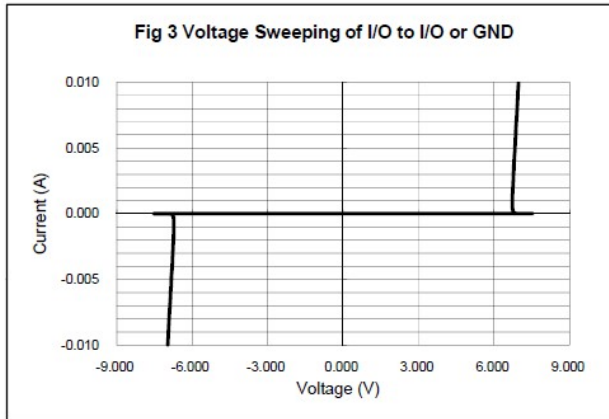
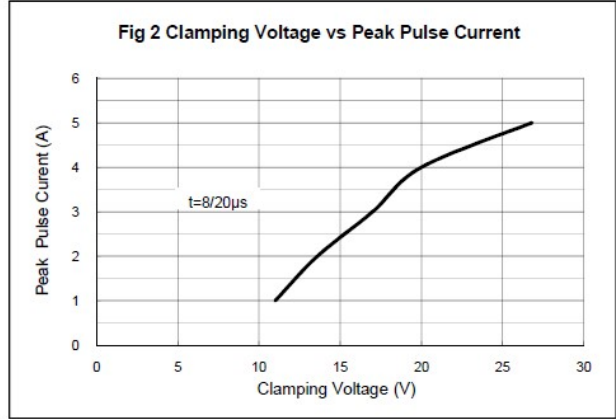
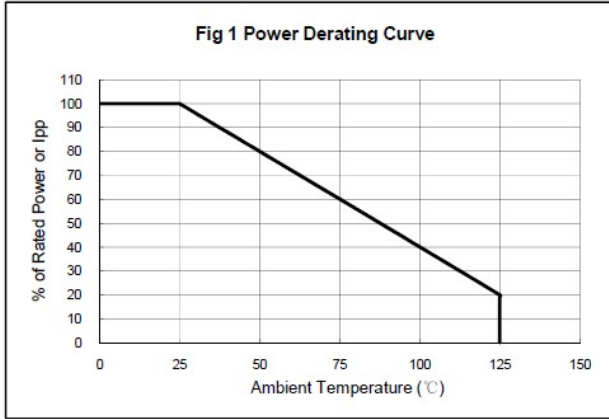
ELECTRICAL CHARACTERISTICS (T_{amb}=25°C)

Symbol	Parameter	Test Condition	Min	Typ	Max	Units
V _{RWM}	Reverse Working Voltage	Any I/O pin to GND			5.0	V
V _{BR}	Reverse Breakdown Voltage	I _r = 1mA Any I/O pin to GND	6.0		10.0	V
I _R	Reverse Leakage Current	V _{RWM} = 5V Any I/O pin to GND			1.0	μA
V _C	Clamping Voltage	I _{PP} = 1A, t _p =8/20μs Any I/O pin to GND			15	V
		I _{PP} = 4A, t _p =8/20μs Any I/O pin to GND			25	V
C _{ESD}	Parasitic Capacitance	V _R = 0V, f = 1MHz Between I/O and GND		0.2	0.25	pF
C _{ESD}	Parasitic Capacitance	V _R = 0V, f = 1MHz Between I/O and I/O		0.2	0.25	pF

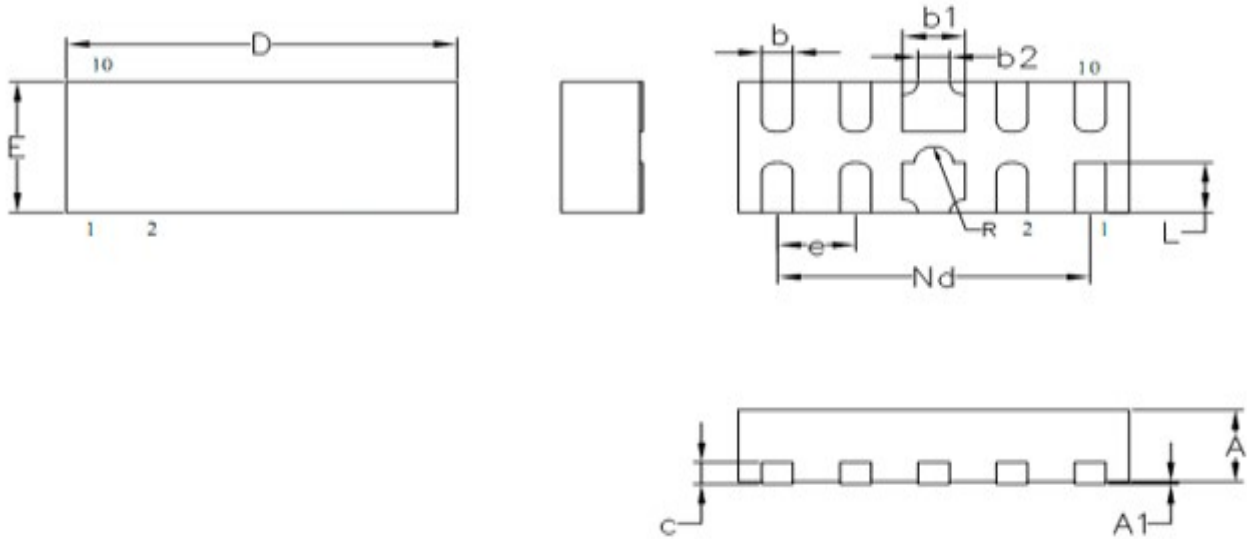
Note: I/O pins are pin 1,2,4,5, GND pins are pin 3,8.



ELECTRICAL CHARACTERISTICS CURVE



DFN2510 PACKAGE OUTLINE DIMENSIONS



Symbol	Dimensions (mm)		
	Min.	Nom.	Max.
D	2.45	2.50	2.55
E	0.95	1.00	1.05
b1	0.35	0.40	0.45
b2	0.20REF		
b	0.15	0.20	0.25
L	0.33	0.38	0.43
Nd	2.00BSC		
e	0.50BSC		
R	0.10	0.125	0.15
A	0.45	0.50	0.55
c	0.15REF		
A1	0.00	-	0.05