

Features

- 4 Uni-directional Channels ESD protection
- Typically Used at High Speed Ports
- Low operating voltage: 3.3V
- Low Channel Input Capacitance of 0.4pF
Typical for I/Os (Typ)
- -IEC 61000-4-2 (ESD) immunity test
Air discharge: $\pm 30\text{kV}$
Contact discharge: $\pm 30\text{kV}$
- -IEC61000-4-4 (EFT) 40A (5/50ns)
- Totally Lead-Free & Fully RoHS Compliant
- Halogen and Antimony Free. "Green" Device

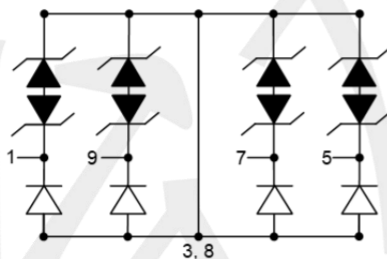
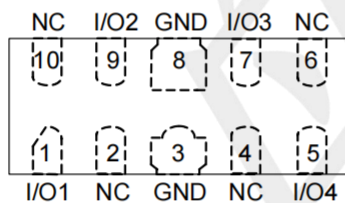
Mechanical Characteristics

- Package: DFN2510-10L
- Lead Finish: Matte Tin
- Case Material: "Green" Molding Compound
- Terminal Connections: See Diagram Below
- -IEC 61000-4-2 (ESD) immunity test

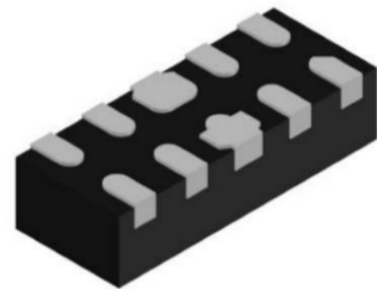
Applications

- USB 3.1 & 3.2 and MDDI ports
- PCI express and Serial SATA
- Ports Notebook Computers
- Tablets

Dimensions and Pin Configuration



Pin configuration (Top view)



DFN2510-10L

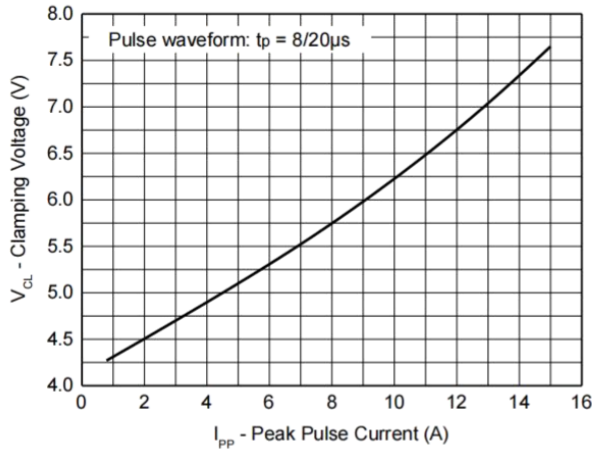
Absolute Maximum Ratings (T_{amb}=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20μs)	P _{pp}	400	W
IEC 61000-4-2 Spec Current at 60 ns (A)	I _{pp}	28	A
ESD per IEC 61000-4-2 (Air)	VESD	±30	KV
ESD per IEC 61000-4-2 (Contact)		±30	
Operating Temperature Range	T _{OP}	-55 to +125	°C
Storage Temperature Range	T _{stg}	-55 to +150	°C

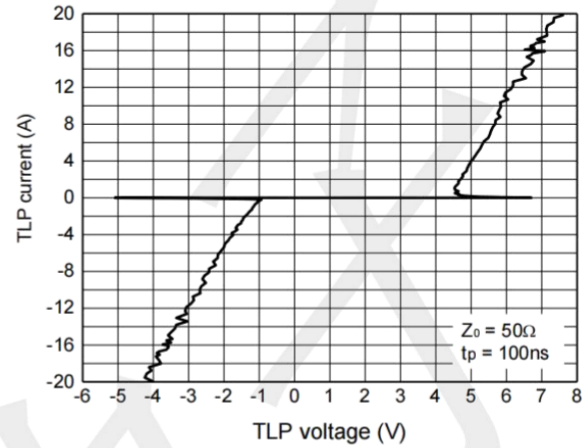
Electrical Characteristics (T_A=25°C unless otherwise specified)

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Working Voltage	VRWM	--	--	3.3	V	
Breakdown Voltage	VBR	4.8	5.5	--	V	I _T = 1mA
Reverse Leakage Current	IR	--	--	0.1	uA	VRWM=3.3V
Forward Voltage	VF	0.5	0.8	1.2	V	I _T = 10mA
Clamping Voltage	VC	--	--	6.5	V	I _{pp} =1A(8x 20us pulse)
Clamping Voltage	VC	--	--	14	V	I _{pp} =28A(8x 20us pulse)
Junction Capacitance	C _J	--	0.4	0.55	pF	V _R = 0V, f = 1MHz, Any I/O pin to GND
Junction Capacitance	C _J	--	0.20	0.25	pF	V _R = 0V, f = 1MHz, Between any I/O pin

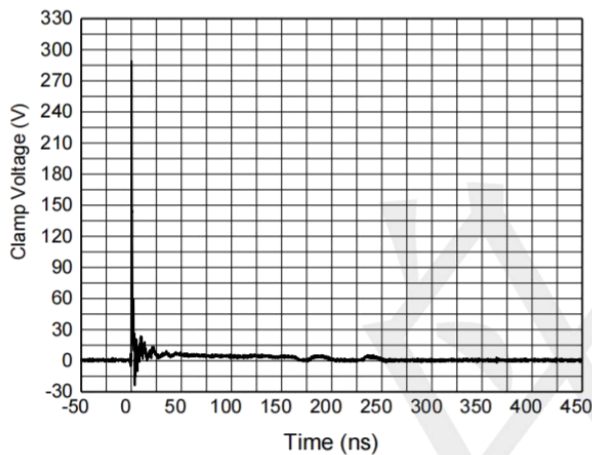
Characteristic Curves($T_A = 25^\circ\text{C}$, unless otherwise specified)



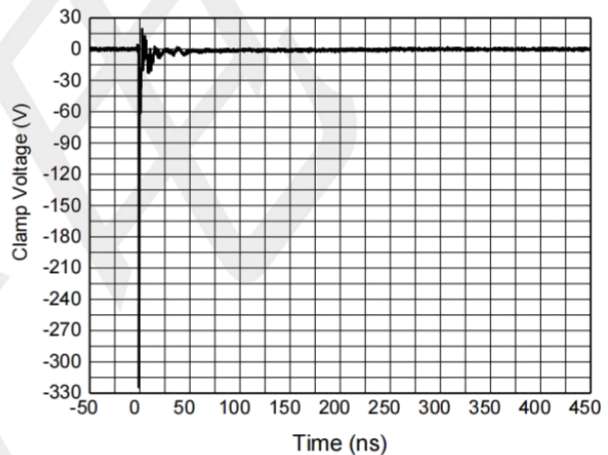
Clamping Voltage vs. Peak Pulse Current



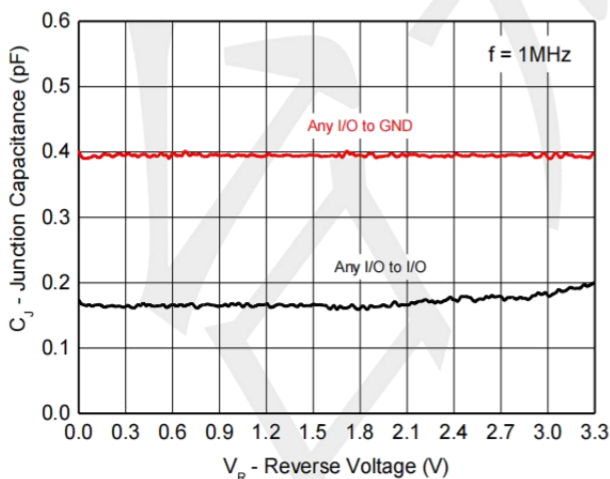
TLP IV Curve



+8kV contact discharge per IEC61000-4-2



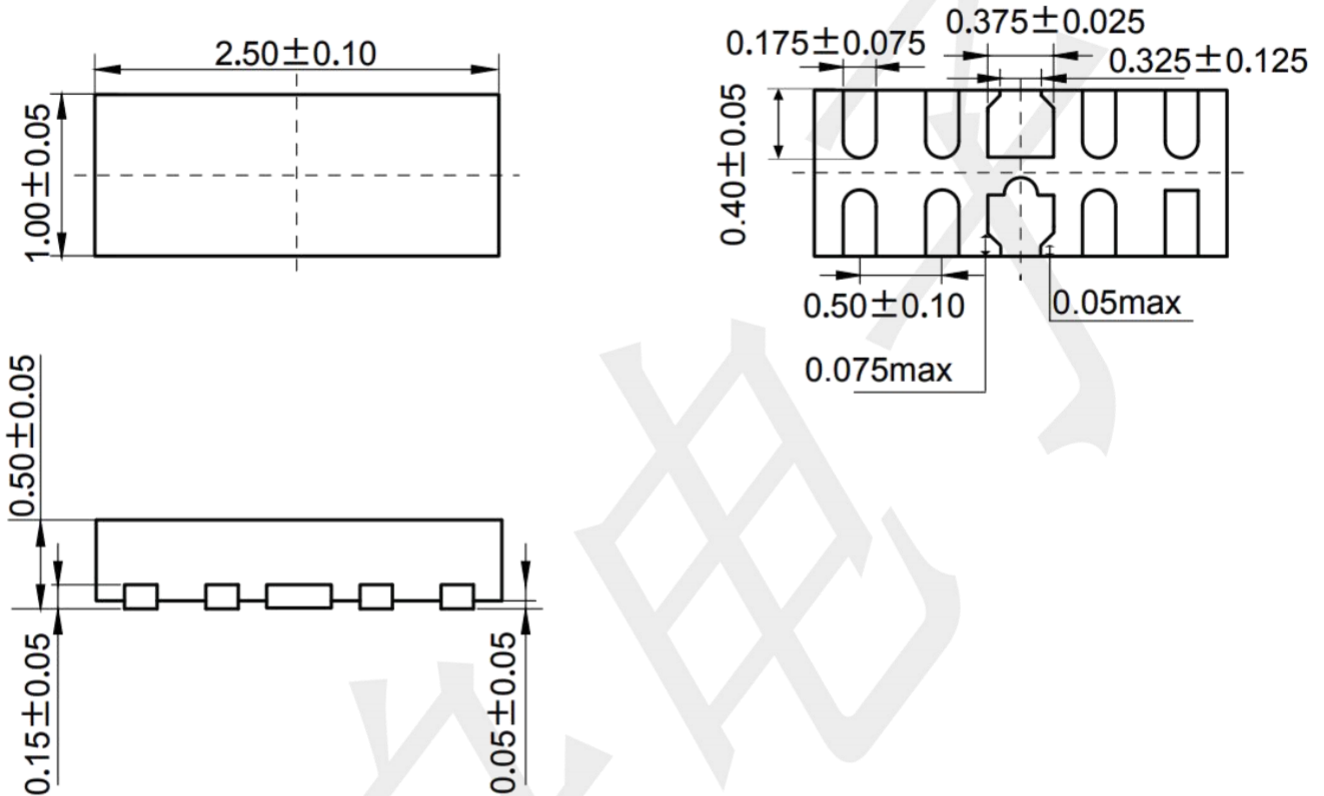
-8kV contact discharge per IEC61000-4-2



Capacitance vs. Reverse Voltage

Package Outline Dimensions (unit: mm)

DFN2510-10L



Mounting Pad Layout (unit: mm)

