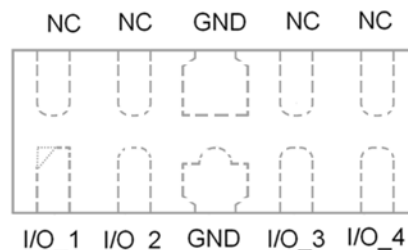


Features

- Ultra low capacitance: 0.22pF typical (I/O to I/O)
- Ultra low leakage: nA level
- Low operating voltage: 3.3V
- Ultra low clamping voltage
- Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
 - Air discharge: $\pm 20\text{kV}$
 - Contact discharge: $\pm 20\text{kV}$
 - IEC61000-4-4 (EFT) 40A (5/50ns)
 - IEC61000-4-5 (Lightning) 4A (8/20 μs)
- RoHS Compliant

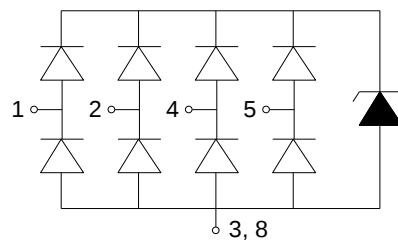
Dimensions DFN2510-10



Applications

- HDMI1.3 /1.4/2.0, USB 2.0/3.0/3.1 Type C
- Monitors and flat panel displays
- Set-top box and Digital TV
- MDDI ports
- Video graphics cards
- Digital Video Interface (DVI)
- Notebook Computers
- PCI Express and Serial SATA Ports

Pin Configuration



Mechanical Characteristics

- Package: DFN2510-10
- Case Material: "Green" Molding Compound.
- UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 3 per J-STD-020
- Quantity Per Reel: 3,000pcs
- Reel Size: 7 inch
- Device Marking: 3324

Absolute Maximum Ratings ($T_A=25^\circ\text{C}$ unless otherwise specified)

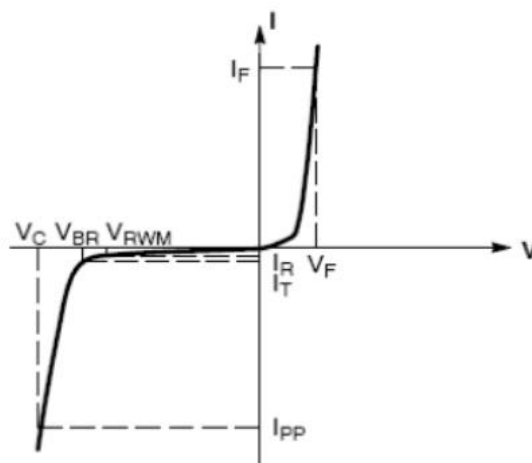
Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20 μs)	Ppk	60	W
Peak Pulse Current (8/20 μs)	I _{PP}	4	A
ESD per IEC 61000-4-2 (Air)	VESD	± 20	kV
ESD per IEC 61000-4-2 (Contact)		± 20	
Operating Temperature Range	T _J	-55 to +125	$^\circ\text{C}$
Storage Temperature Range	T _{stg}	-55 to +150	$^\circ\text{C}$

Electrical Characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise specified)

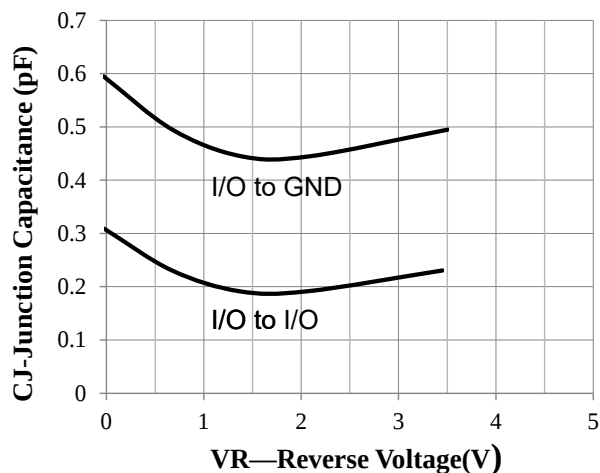
Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Working Voltage	V_{RWM}	Any I/O pin to ground			3.3	V
Breakdown Voltage	V_{BR}	$I_T = 1\text{mA}$, any I/O pin to ground	4.2			V
Reverse Leakage Current	I_R	$V_{RWM} = 3.3\text{V}$, any I/O pin to ground			0.1	μA
Clamping Voltage	V_C	$I_{PP} = 1\text{A}$ (8 x 20 μs pulse), any I/O pin to ground			10	V
Clamping Voltage	V_C	$I_{PP} = 4\text{A}$ (8 x 20 μs pulse), any I/O pin to ground			15	V
Junction Capacitance	C_J	$V_{\text{pin}3,8} = 0\text{V}$, $V_{\text{in}} = 1.0\text{V}$, $f = 1\text{MHz}$, any I/O pin to ground		0.45	0.6	pF
Junction Capacitance	C_J	$V_{\text{pin}3,8} = 0\text{V}$, $V_{\text{in}} = 1.0\text{V}$, $f = 1\text{MHz}$, between I/O pins		0.22	0.3	pF

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

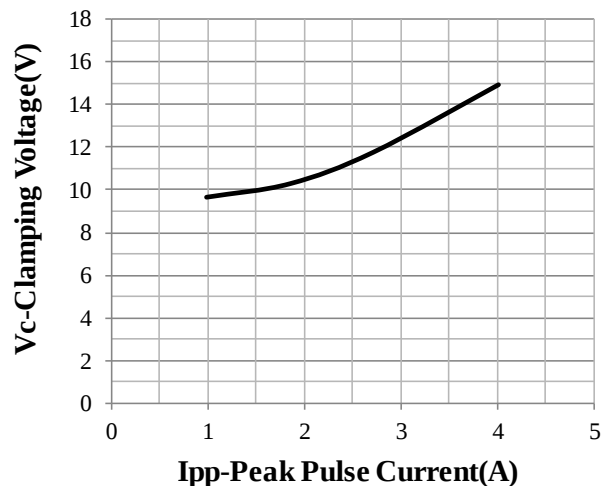
Symbol	Parameter
I_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
V_{RWM}	Working Peak Reverse Voltage
I_R	Maximum Reverse Leakage Current @ V_{RWM}
I_T	Test Current
V_{BR}	Breakdown Voltage @ I_T
P_{PK}	Peak Power Dissipation
C	Max. Capacitance @ $V_R = 0$ and freq.=1 MHz
V_H	Holding Voltage
I_H	Holding Current



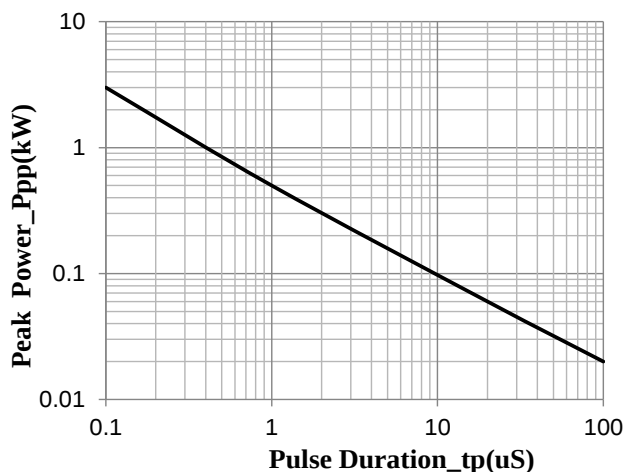
Typical Performance Characteristics ($T_A=25^\circ\text{C}$ unless otherwise Specified)



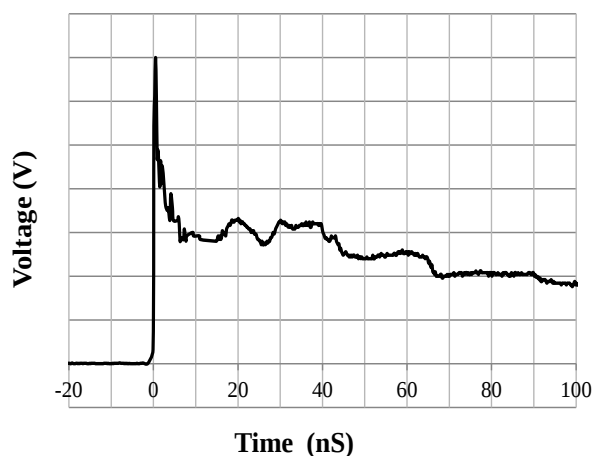
Junction Capacitance vs. Reverse Voltage



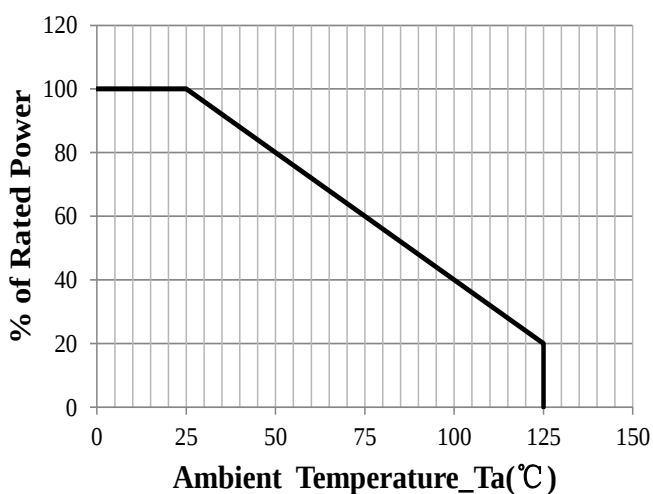
Clamping Voltage vs. Peak Pulse Current



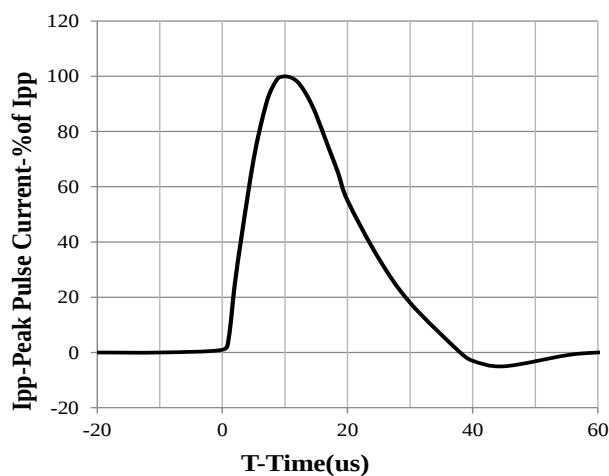
Peak Pulse Power vs. Pulse Time



IEC61000-4-2 Pulse Waveform

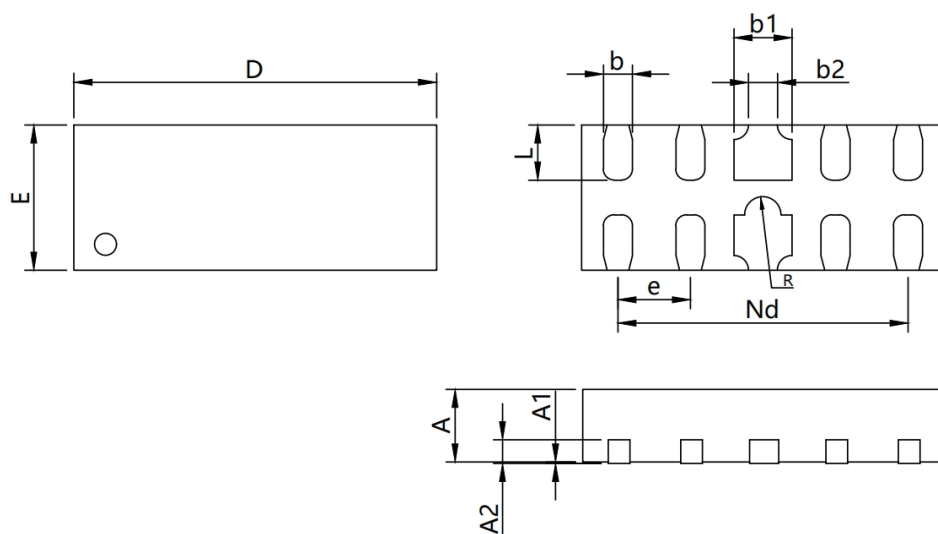


Power Derating Curve



8 X 20us Pulse Waveform

DFN2510-10 Package Outline Drawing



	Millimeters			Inches		
	Min. (mm)	Typ. (mm)	Max. (mm)	Min. (in)	Typ. (in)	Max. (in)
D	2.45	2.50	2.55	0.096	0.098	0.100
E	0.95	1.00	1.05	0.037	0.039	0.041
b1	0.35	0.40	0.45	0.0138	0.0157	0.0177
b2	0.15	0.20	0.25	0.0059	0.0079	0.0098
b	0.10	0.15	0.20	0.0039	0.0059	0.0079
L	0.33	0.38	0.43	0.013	0.015	0.017
Nd	2.00bsc			0.079bsc		
e	0.50bsc			0.020bsc		
R	0.125bsc			0.005bsc		
A	0.45	0.50	0.55	0.0177	0.0196	0.0217
A2	0.152ref			0.006ref		
A1	-	0	0.05	-	0	0.0020

NOTICE

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