

Features

- Ultra low capacitance: 0.4pF typical (I/O to I/O)
- Ultra low leakage: nA level
- Low operating voltage: 3.3V
- Low clamping voltage with snap back technology
- Up to 4 lines protects
- Leadless flow -through package
- Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
Air discharge: ± 30 kV
Contact discharge: ± 30 kV
 - IEC61000-4-4 (EFT) 40A (5/50ns)
 - IEC61000-4-5 (Lightning) 5A (8/20 μ s)
- RoHS Compliant

Applications

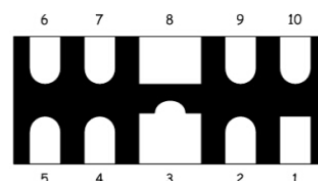
- HDMI 1.3 & 1.4, USB 2.0 & 3.0 and MDDI ports
- Monitors and flat panel displays
- Set -top box and Digital TV
- Video graphics cards
- Digital Video Interface (DVI)
- Notebook Computers
- PCI Express and Serial SATA Ports

Mechanical Characteristics

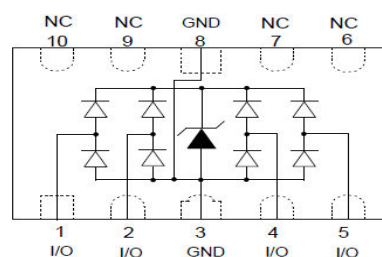
- Package: DFN2510P10
- Lead Finish: Matte Tin
- UL Flammability Classification Rating 94V-0
- Quantity Per Reel:3000pcs
- Reel Size:7inch

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

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20 μ s)	P _{pp}	60	W
ESD per IEC 61000-4-2 (Air)	V _{ESD}	± 30	Kv
ESD per IEC 61000-4-2 (Contact)		± 30	
Operating Temperature Range	T _J	-55 to +125	°C
Storage Temperature Range	T _{STJ}	-55 to +150	°C



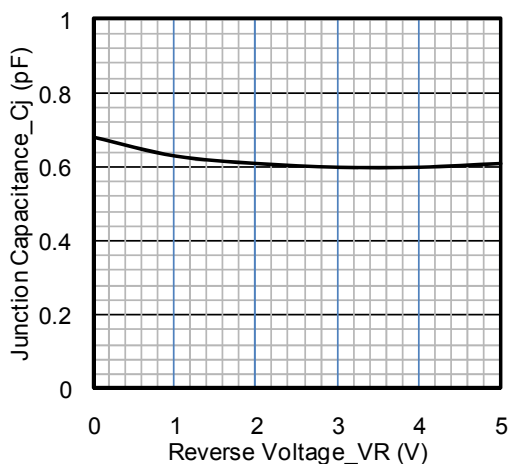
DFN2510P10



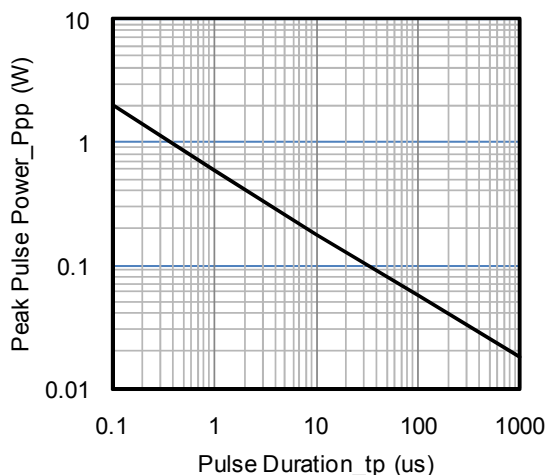
Electrical Characteristics (TA=25°C unless otherwise specified)

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Working Voltage	VRWM			3.3	V	Any I/O pin to ground
Breakdown Voltage	VBR	4.5			V	IT = 1mA, any I/O pin to ground
Reverse Leakage Current	IR			0.5	μA	VRWM = 3.3V, any I/O pin to ground
Clamping Voltage	VC			6.5	V	I _{PP} = 1A (8 x 20μs pulse), any I/O pin to ground
Clamping Voltage	VC			10	V	I _{PP} = 5A (8 x 20μs pulse), any I/O pin to ground
Junction Capacitance	CJ		0.4		pF	VR = 0V, f = 1MHz, between I/O pins
Junction Capacitance	CJ		0.6		pF	VR = 0V, f = 1MHz, any I/O pin to ground

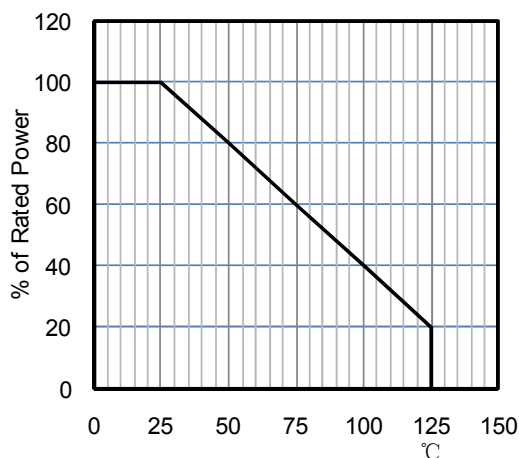
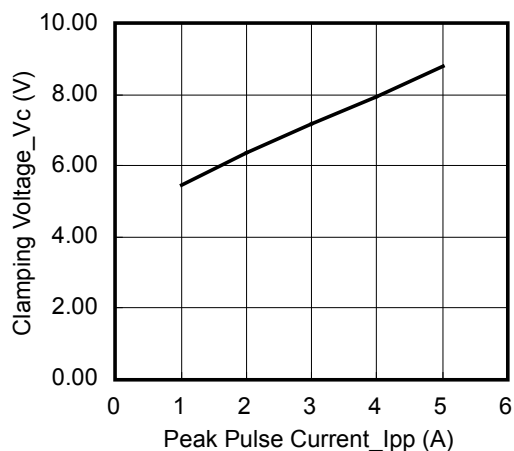
Characteristic Curves



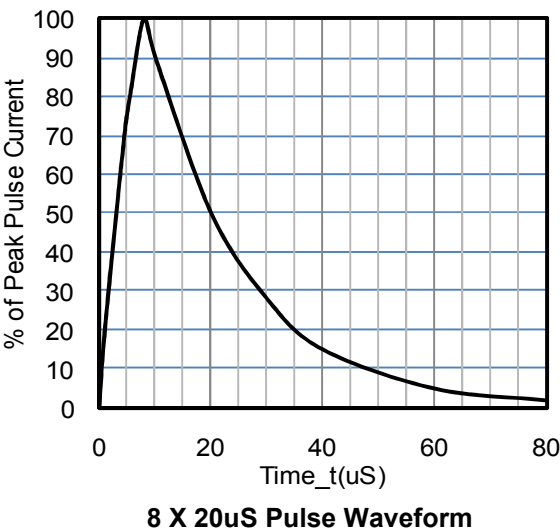
Junction Capacitance vs. Reverse Voltage



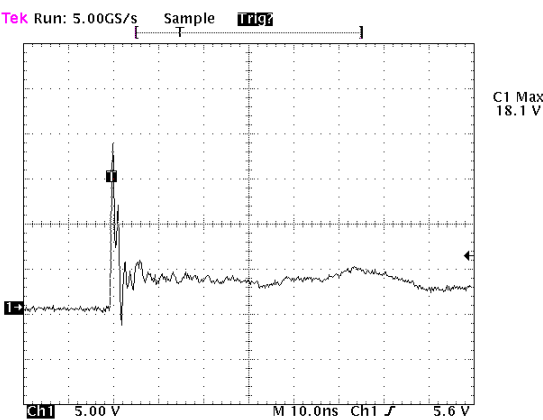
Peak Pulse Power vs. Pulse Time



Clamping Voltage vs. Peak Pulse Current



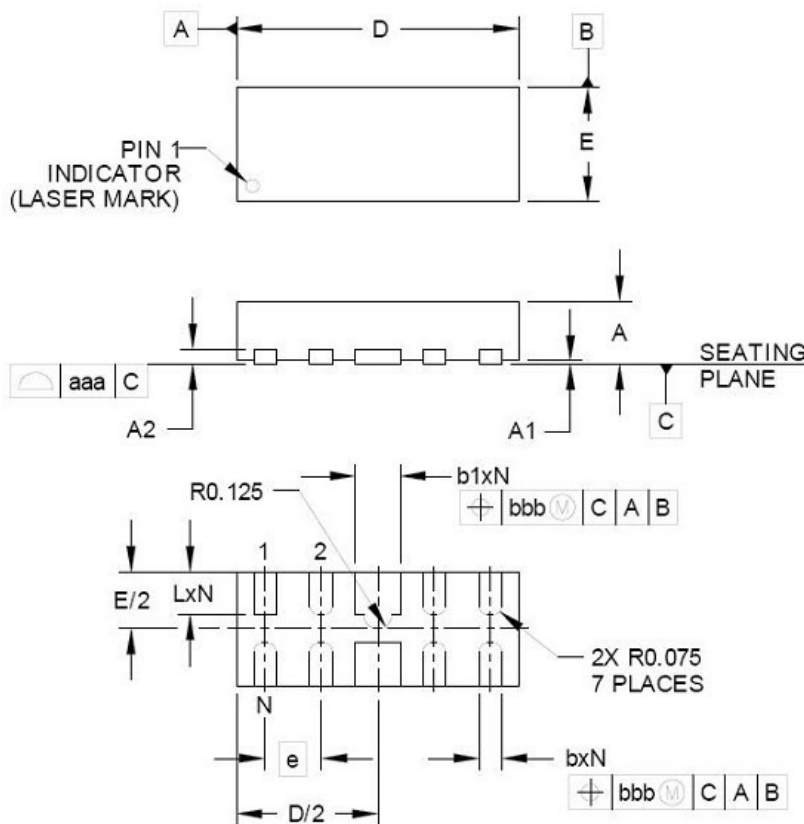
Power Derating Curve



ESD Clamping Voltage

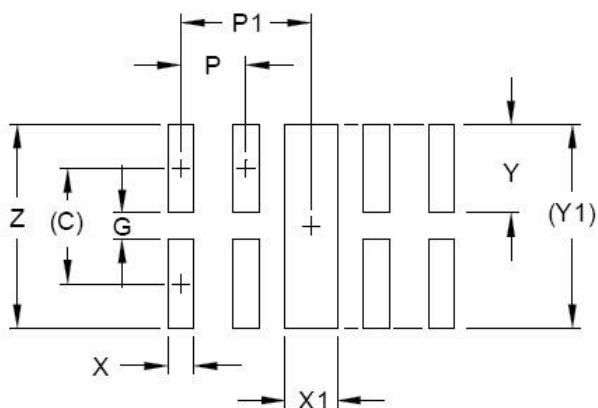
8 kV Contact per IEC61000-4-2

DFN2510P10 PACKAGE OUTLINE & DIMENSIONS



DIM	DIMENSIONS					
	INCHES			MILLIMETERS		
	MIN	NOM	MAX	MIN	NOM	MAX
A	.020	.023	.026	0.50	0.58	0.65
A1	0.00	.001	.002	0.00	0.03	0.05
A2	(.005)			(0.13)		
b	.006	.008	.010	0.15	0.20	0.25
b1	.014	.016	.018	0.35	0.40	0.45
D	.094	.098	.102	2.40	2.50	2.60
E	.035	.039	.043	0.90	1.00	1.10
e	.020 BSC			.050 BSC		
L	.012	.015	.017	0.30	0.38	0.425
N	10			10		
aaa	.003			0.08		
bbb	.004			0.10		

* SOLDERING FOOTPRINT



DIMENSIONS		
DIM	INCHES	MILLIMETERS
C	(.034)	(0.875)
G	.008	0.20
P	.020	0.50
P1	.039	1.00
X	.008	0.20
X1	.016	0.40
Y	.027	0.675
Y1	(.061)	(1.55)
Z	.061	1.55