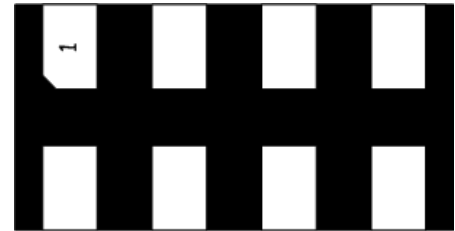


### Features

- Protects two line pairs
- Ultra low leakage: nA level
- Ultra low operating voltage: 3.3V
- Ultra low clamping voltage
- Flow-through design simplifies layout
- Complies with following standards:
  - IEC 61000-4-2 (ESD):  $\pm 30\text{kV}$  (Contact/Air)
  - IEC 61000-4-5 (Lightning) 30A (8/20 $\mu\text{s}$ )
- RoHS Compliant

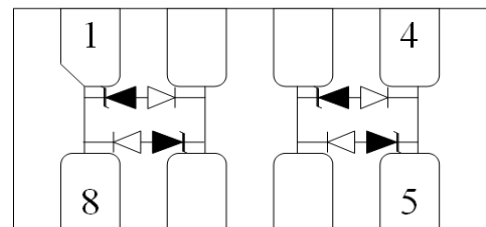
### Dimensions DFN2010-8



### Applications

- LAN/WAN Equipment
- 10/100/1000 Ethernet
- RJ-45 connectors
- Industrial Controls
- Security Cameras
- Notebooks & Desktop Computers

### Pin Configuration



### Mechanical Characteristics

- Package: DFN2010-8
- Lead Finish: Lead Free
- UL Flammability Classification Rating 94V-0
- Quantity Per Reel: 3000pcs
- Reel Size: 7 inch
- Device Marking: 3312P

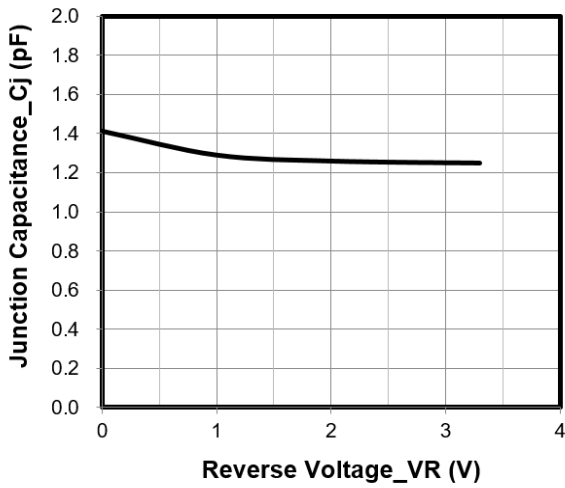
### Absolute Maximum Ratings (Tamb=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20 $\mu\text{s}$ )	Ppp	360	W
ESD per IEC 61000-4-2 (Air)	V <sub>ESD</sub>	$\pm 30$	Kv
ESD per IEC 61000-4-2 (Contact)		$\pm 30$	
Operating Temperature Range	T <sub>J</sub>	-55 to +125	°C
Storage Temperature Range	T <sub>STJ</sub>	-55 to +150	°C

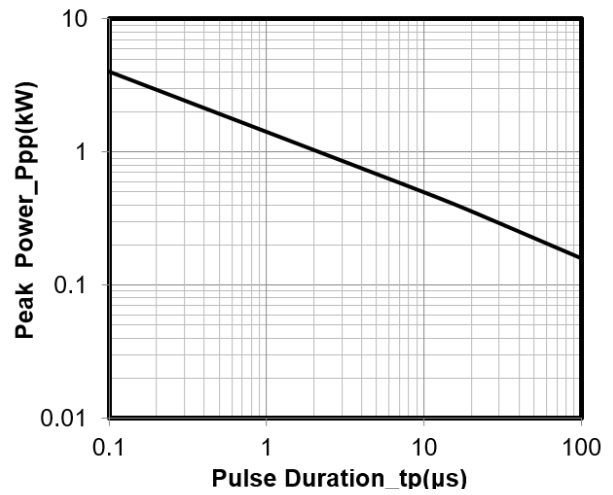
**Electrical Characteristics** (TA=25°C unless otherwise specified)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Working Voltage	$V_{RWM}$				3.3	V
Breakdown Voltage	$V_{BR}$	$I_T = 1mA$	3.5		8.0	V
Reverse Leakage Current	$I_R$	$V_{RWM} = 3.3V$			0.2	$\mu A$
Clamping Voltage	$V_C$	$I_{PP} = 1A$ (8 x 20 $\mu s$ pulse)			7.5	V
Clamping Voltage	$V_C$	$I_{PP} = 30A$ (8 x 20 $\mu s$ pulse)			12	V
Junction Capacitance	$C_J$	$V_R = 0V, f = 1MHz$		1.5		pF

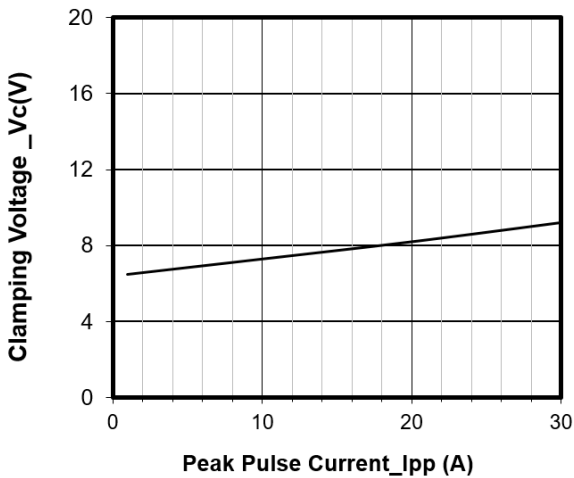
Typical Performance Characteristics (TA=25°C unless otherwise Specified)



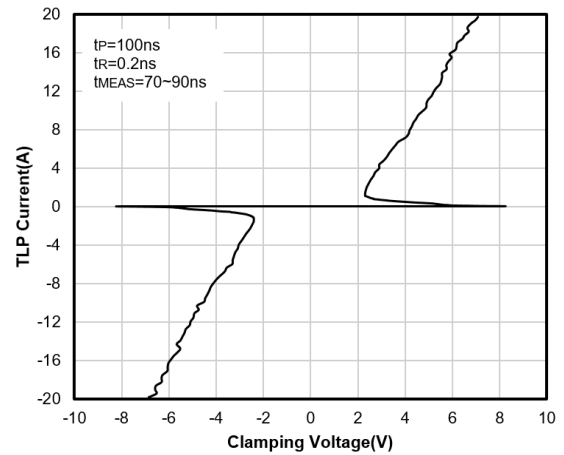
Junction Capacitance vs. Reverse Voltage



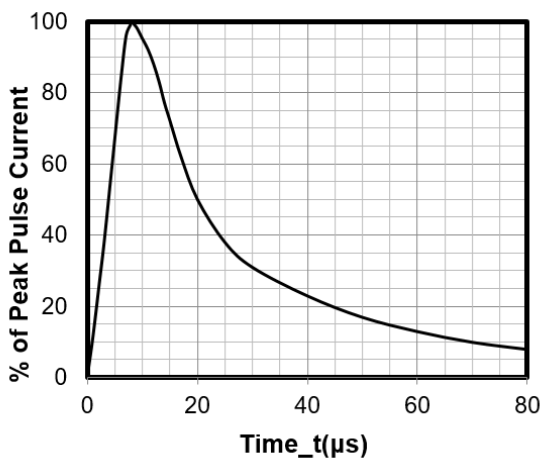
Peak Pulse Power vs. Pulse Time



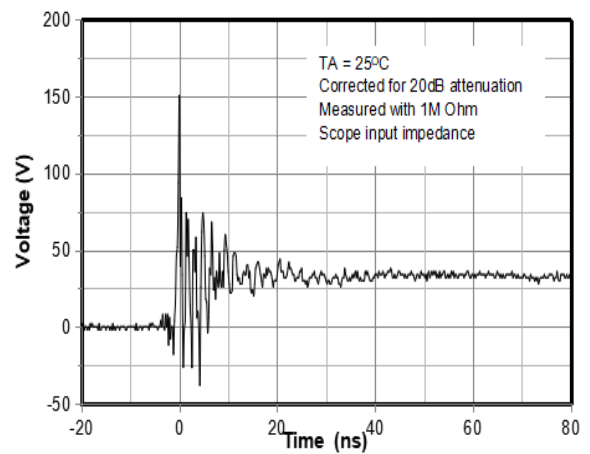
Clamping Voltage vs. Peak Pulse Current



TLP Curve

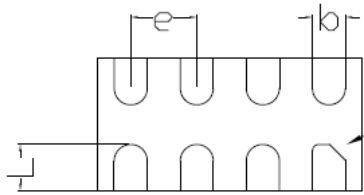


8 X 20μs Pulse Waveform

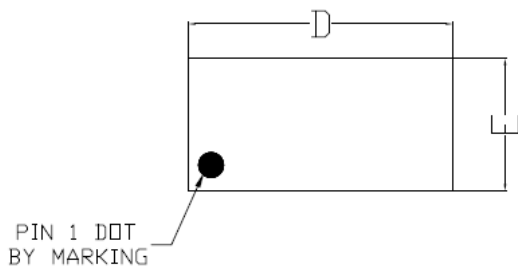


ESD Clamping Voltage  
8 kV Contact per IEC61000-4-2

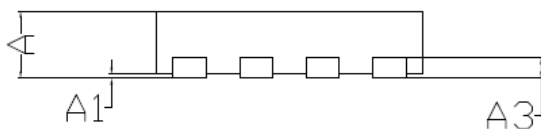
## DFN2010-8 Package Outline Drawing



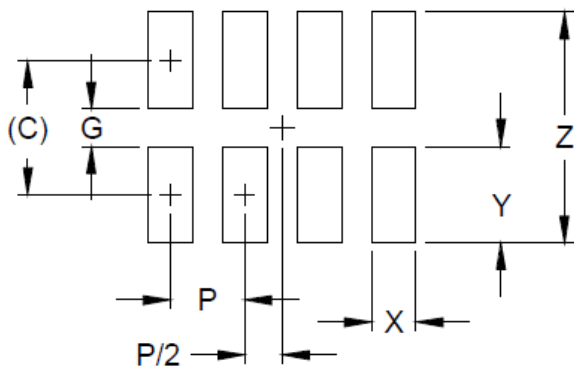
PIN #1 IDENTIFICATION  
CHAMFER 0.120



SYMBOL	MILLMETER(mm)		
	MIN	NOM	MAX
A	0.527	0.55	0.57
A1	0	-	0.05
A3	0.125REF		
D	1.95	2	2.05
E	0.95	1	1.05
L	0.25	0.35	0.45
b	0.2	0.25	0.3
e	0.50Bsc		



## Suggested Land Pattern



DIMENSIONS	
DIM	MILLIMETERS
C	(0.90)
G	0.25
P	0.50
X	0.30
Y	0.65
Z	1.55

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