

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 μs)
- RoHS Compliant

Applications

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

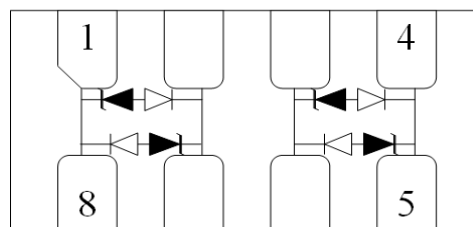
Mechanical Characteristics

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

Dimensions DFN2010-8



Pin Configuration



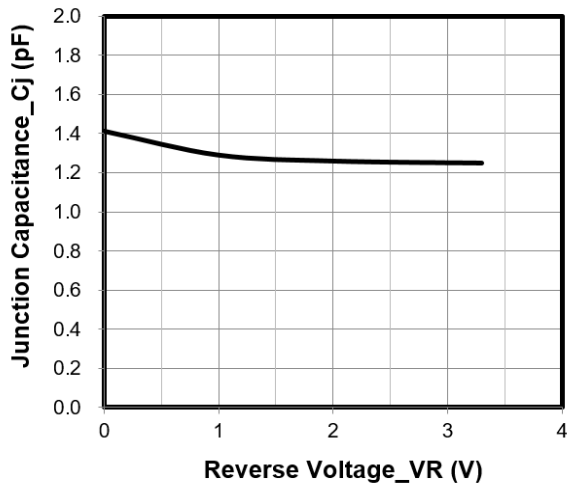
Absolute Maximum Ratings (T_{amb}=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20 μs)	P _{pp}	360	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

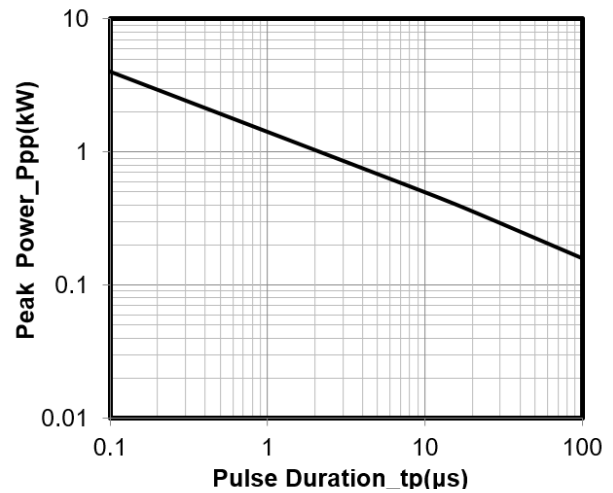
Electrical Characteristics (TA=25°C unless otherwise specified)

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	μA
Clamping Voltage	V_C	$I_{PP} = 1A$ (8 x 20 μs pulse)			7.5	V
Clamping Voltage	V_C	$I_{PP} = 30A$ (8 x 20 μs pulse)			12	V
Junction Capacitance	C_J	$V_R = 0V$, $f = 1MHz$		1.5		pF

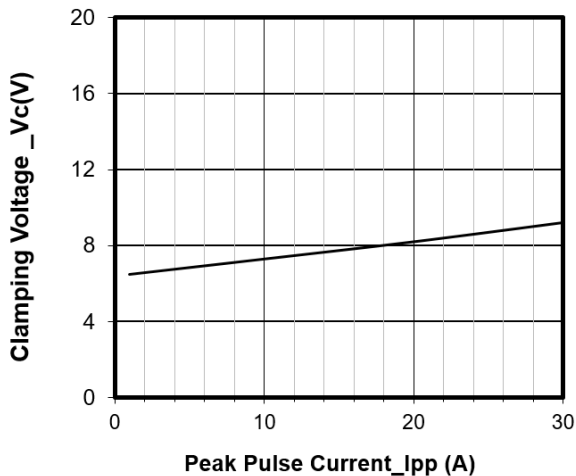
Typical Performance Characteristics (TA=25°C unless otherwise Specified)



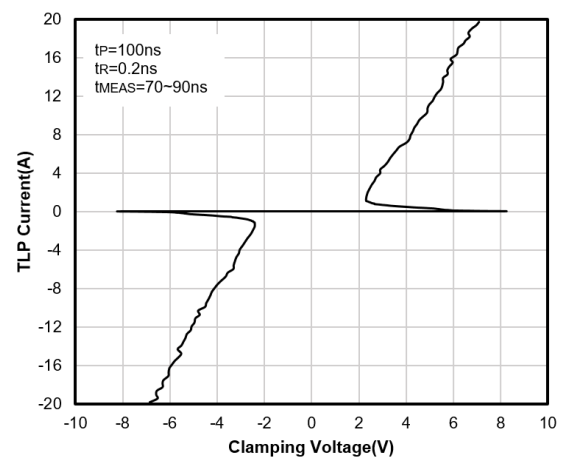
Junction Capacitance vs. Reverse Voltage



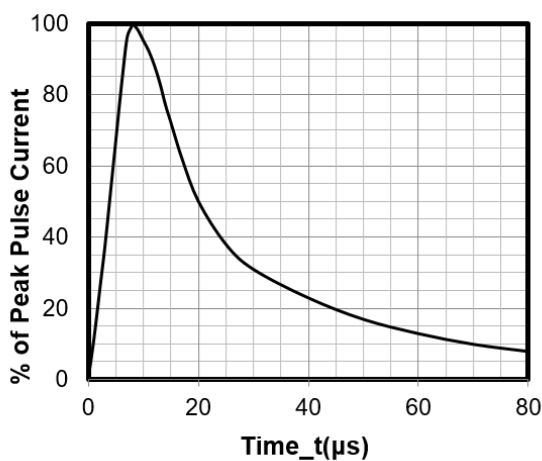
Peak Pulse Power vs. Pulse Time



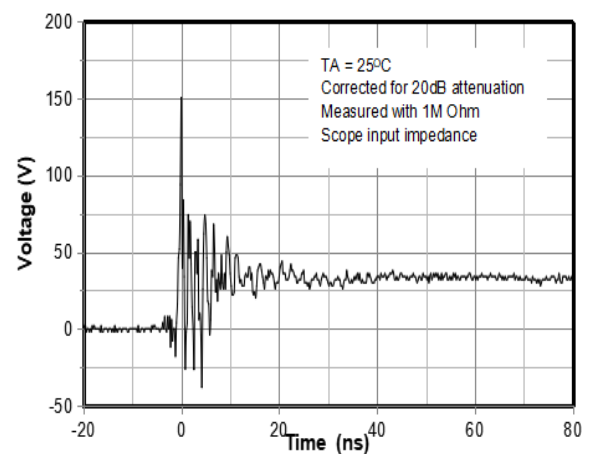
Clamping Voltage vs. Peak Pulse Current



TLP Curve

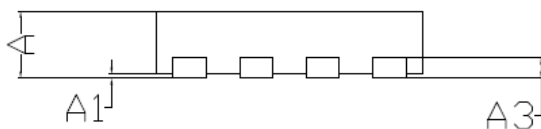
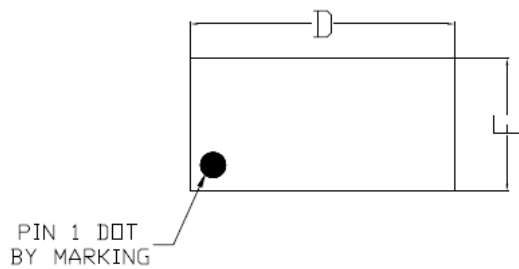
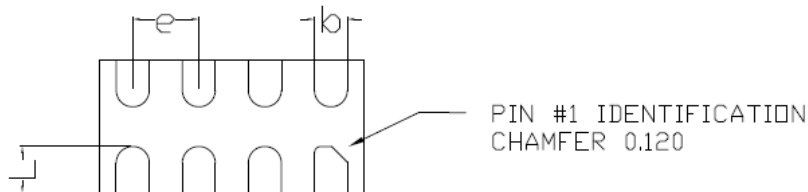


8 X 20 μs Pulse Waveform



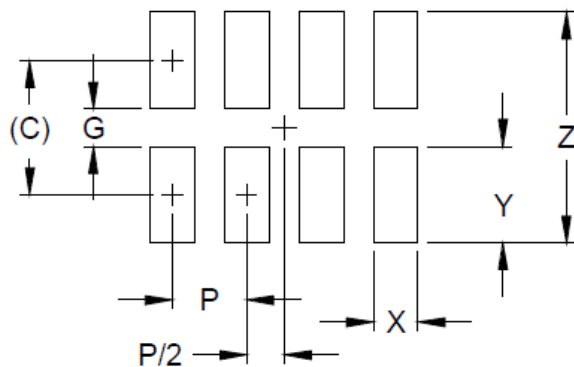
ESD Clamping Voltage
8 kV Contact per IEC61000-4-2

DFN2010-8 Package Outline Drawing



SYMBOL	MILLIMETER(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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