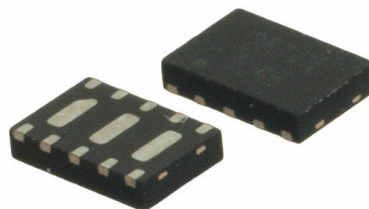


Features

- Ultra low leakage: nA level
- Operating voltage: 2.5V
- Low clamping voltage
- Complies with following standards:
 - 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)
 - IEC61000-4-5 (Lightning) 40A (8/20 μs)
- RoHS Compliant

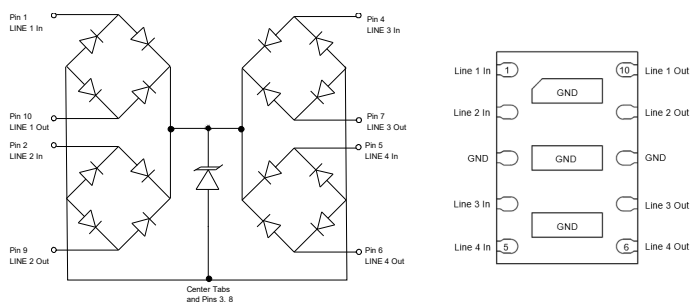
Dimensions DFN3020-10



Applications

- 10/100/1000M Ethernet
- LVDS Interfaces
- Notebooks, Desktops, Servers
- Networking Equipment
- Switching Systems
- Audio/Video Inputs

Pin Configuration



Mechanical Characteristics

- Package: DFN3020-10
- Lead Finish: Lead Free
- UL Flammability Classification Rating 94V-0
- Quantity Per Reel: 3,000pcs
- Reel Size: 7 inch
- Device Marking: 2574N

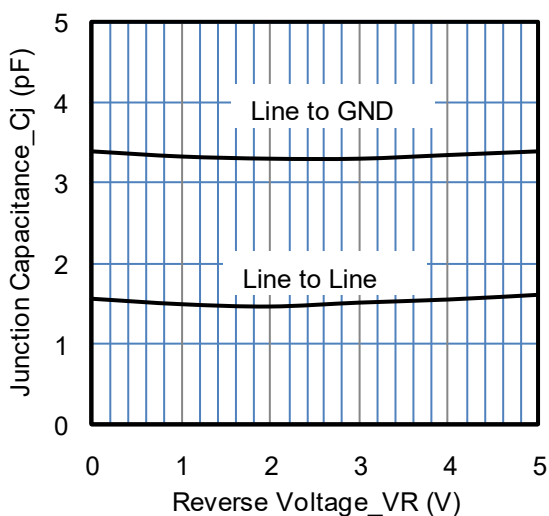
Absolute Maximum Ratings (Tamb=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20 μs)	Ppp	1000	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

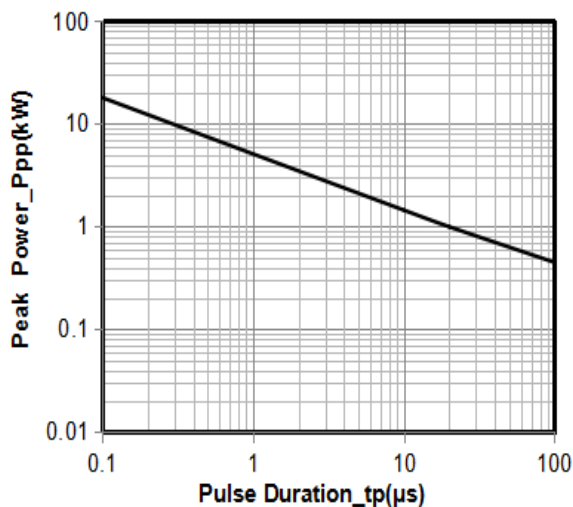
Electrical Characteristics (TA=25°C unless otherwise specified)

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Working Voltage	VRWM			2.5	V	
Punch-Through Voltage	VPT	2.7			V	IT = 2μA
Snap-Back Voltage	VS _B	2.0			V	IS _B = 50mA
Reverse Leakage Current	IR			0.2	μA	VRWM = 2.5V
Clamping Voltage	VC			4.5	V	I _{PP} = 1A (8 x 20μs pulse), any I/O pin to ground
Clamping Voltage	VC			7.5	V	I _{PP} = 10A (8 x 20μs pulse), any I/O pin to ground
Clamping Voltage	VC			12	V	I _{PP} = 25A (8 x 20μs pulse), any I/O pin to ground
Clamping Voltage	VC			25	V	I _{PP} = 40A (8 x 20μs pulse), line to line (two I/O pins connected together on each line)
Junction Capacitance	CJ		1.7	2.5	pF	VR = 0V, f = 1MHz, between I/O pins
Junction Capacitance	CJ		3.8	5.0	pF	VR = 0V, f = 1MHz, any I/O pin to ground

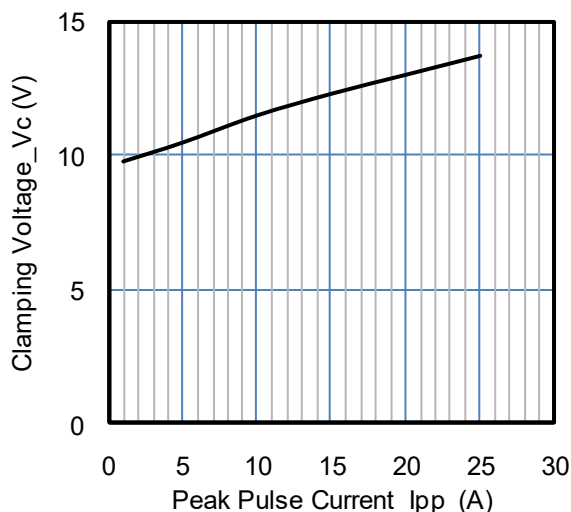
Typical Performance Characteristics (TA=25°C unless otherwise specified)



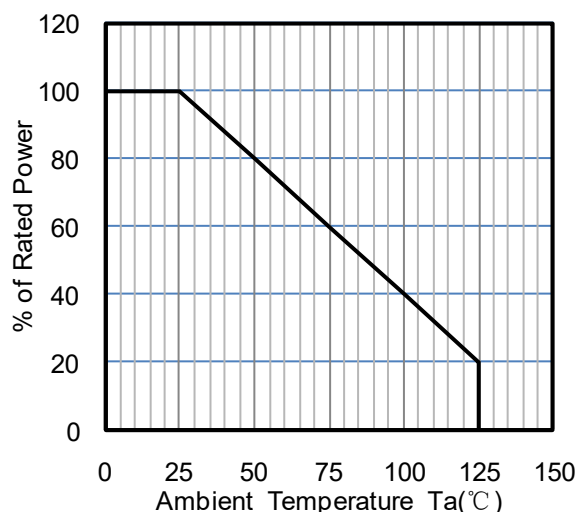
Junction Capacitance vs. Reverse Voltage



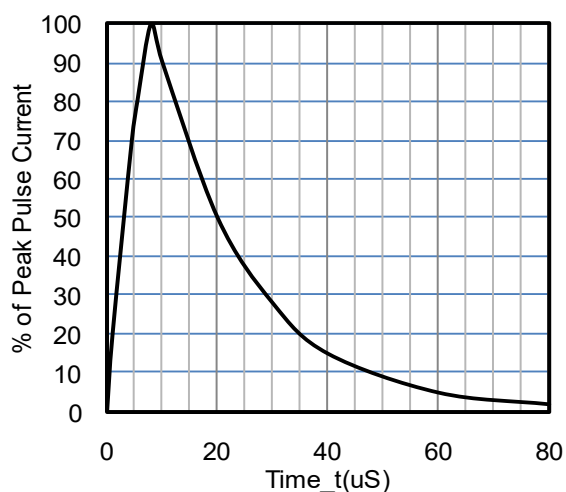
Peak Pulse Power vs. Pulse Time



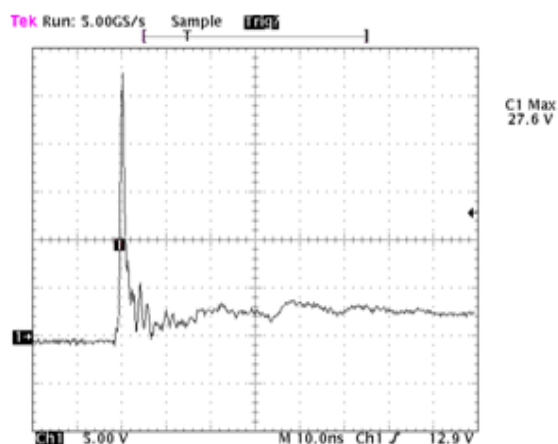
Clamping Voltage vs. Peak Pulse Current



Power Derating Curve



8 X 20μs Pulse Waveform



Note: Data is taken with a 10x attenuator

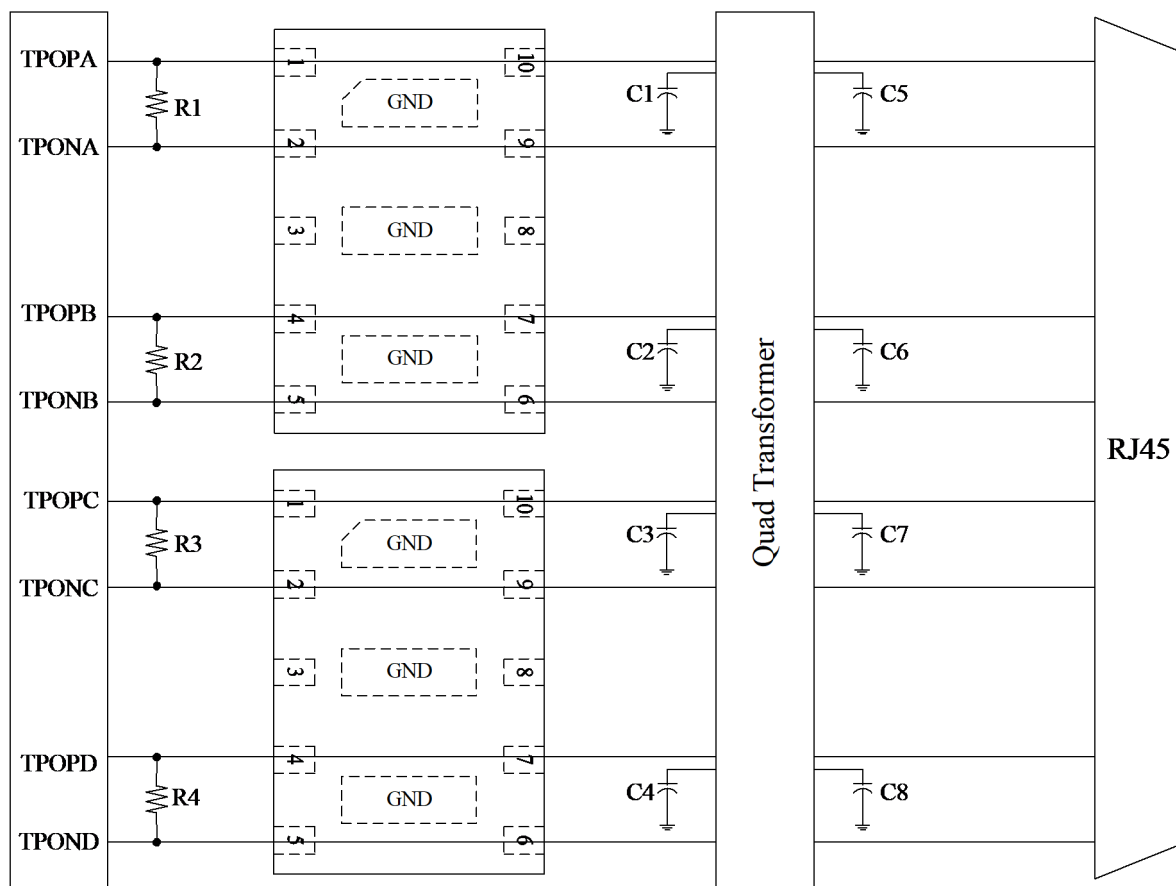
ESD Clamping Voltage

8 kV Contact per IEC61000-4-2

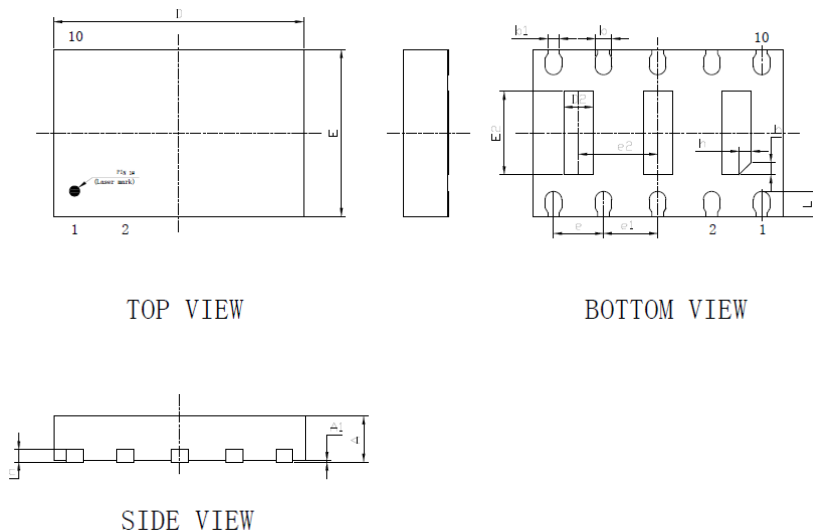
Typical Application

Electronic equipment is susceptible to damage caused by a variety of sources, including Electrostatic Discharge (ESD), Electrical Fast Transients (EFT) and Lightning strikes. The LM-AZ3125-08F is designed to protect the sensitive equipment from damage which may be induced by such transient events. This product can be configured in different connections to meet the requirement of common-mode and differential-mode as follows:

LM-AZ3125-08F on Gigabit Ethernet Application

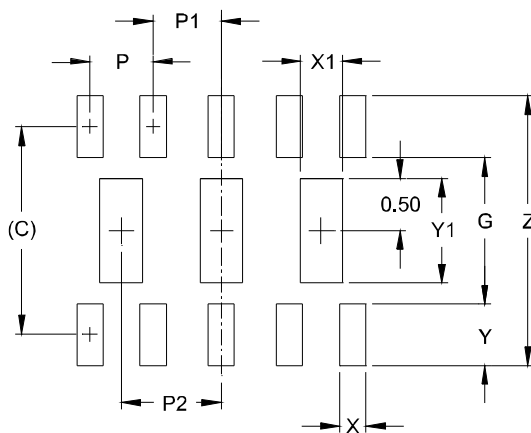


DFN3020-10 Package Outline Drawing



SYMBOL	MILLIMETER		
	MIN	NOM	MAX
A	0.50	0.55	0.60
A1	0.00	0.02	0.05
b	0.15	0.20	0.25
b1	0.14REF		
c	0.15REF		
D	2.90	3.00	3.10
D2	0.30	0.35	0.40
e	0.60BSC		
e1	0.65BSC		
e2	0.95BSC		
E	1.90	2.00	2.10
E2	0.95	1.00	1.05
L	0.25	0.30	0.35
h	0.10	0.15	0.20

Suggested Land Pattern



DIM	MILLIMETERS
C	(1.98)
D	1.40
P	0.60
P1	0.65
P2	0.95
X	0.25
X1	0.40
Y	0.58
Y1	1.00
Z	2.56

NOTICE

Leiditech reserves the right to make modifications, enhancements, improvements, corrections or other changes without further notice to any product herein. Leiditech does not assume any liability arising out of the application or use of any product described herein.