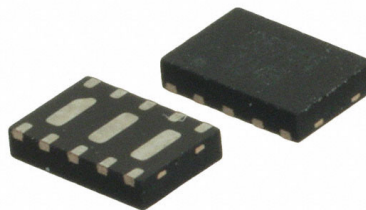


Features

- Ultra low leakage: nA level
- Operating voltage: 3.3V
- 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



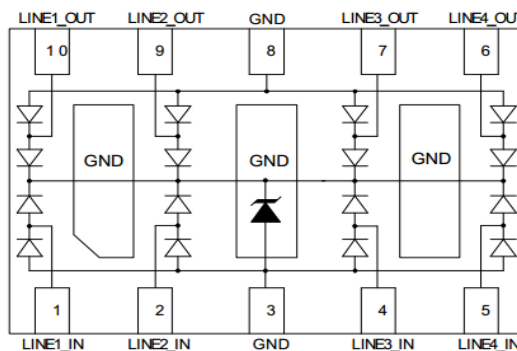
Applications

- 10/100/1000M Ethernet
- USB power and data line
- Set-top box and digital TV
- Digital video interface (DVI)
- Notebook Computers
- SIM Ports

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: 3374N

Pin Configuration



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

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20 μs)	P _{pp}	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	Test Condition	Min	Typ	Max	Unit
Reverse Working Voltage	V_{RWM}				3.3	V
Breakdown Voltage	V_{BR}	$I_T = 1mA$	3.5			V
Reverse Leakage Current	I_R	$V_{RWM} = 3.3V$			0.5	μA
Clamping Voltage	V_C	$I_{PP} = 1A$ (8 x 20 μs pulse)			5.5	V
Clamping Voltage	V_C	$I_{PP} = 40A$ (8 x 20 μs pulse)			25	V
Junction Capacitance	C_J	$V_R = 0V$, $f = 1MHz$		2.5		pF

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

Fig1. 8/20 μs Pulse Waveform

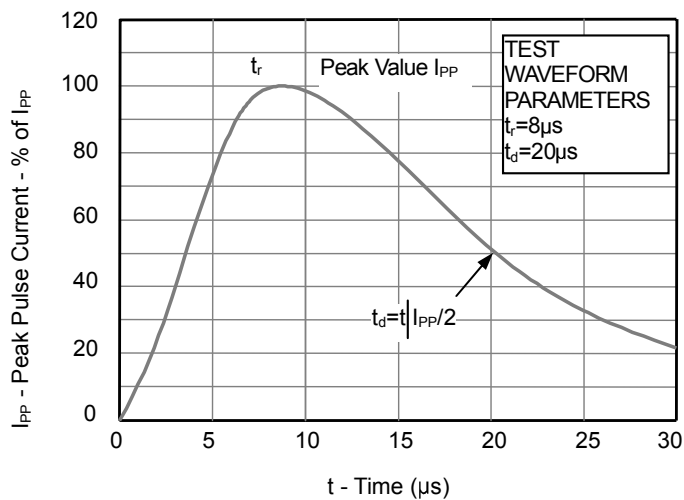


Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)

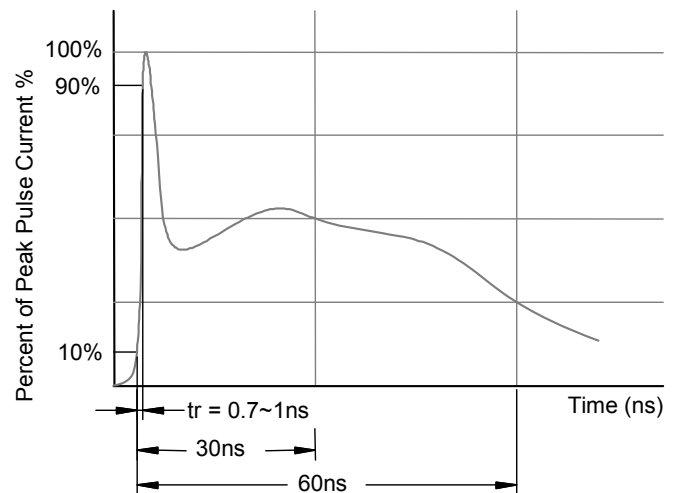
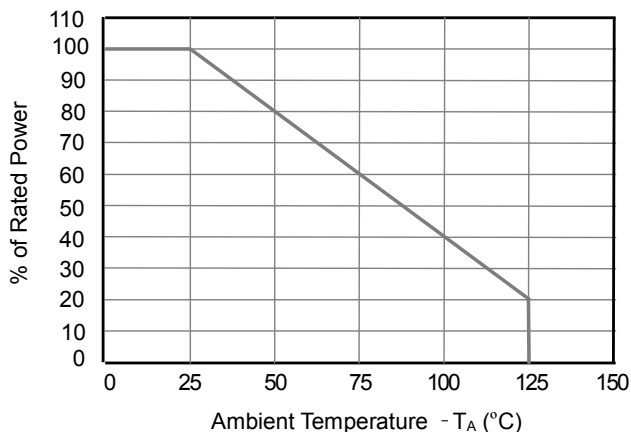


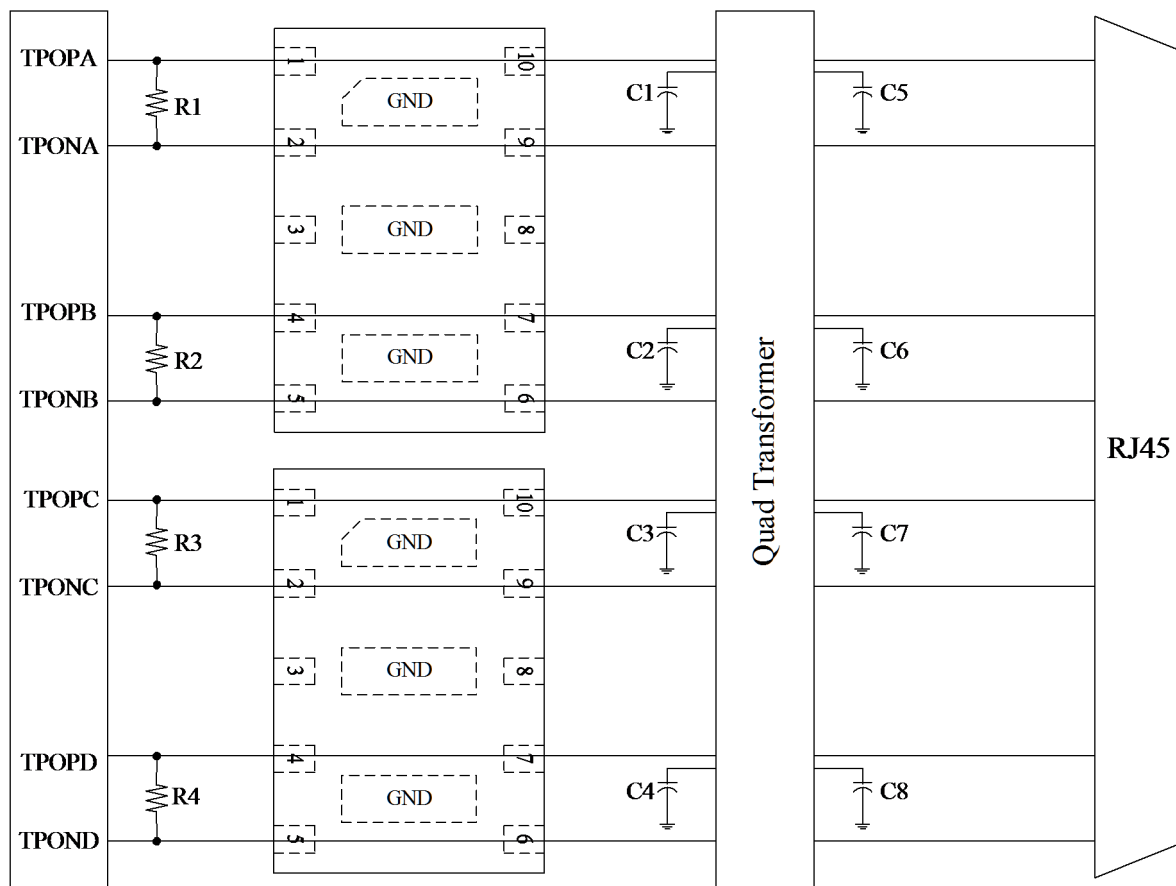
Fig3. Power Derating Curve



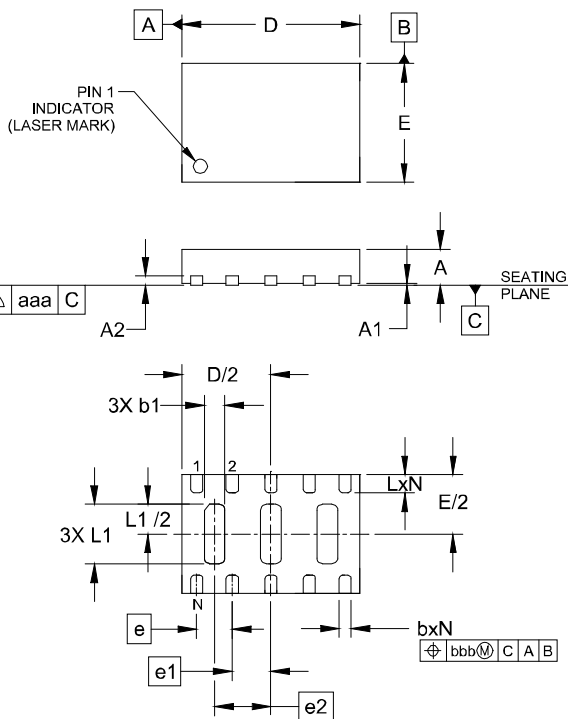
Typical Application

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-AZ3133-08F 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:

Gigabit Ethernet Application

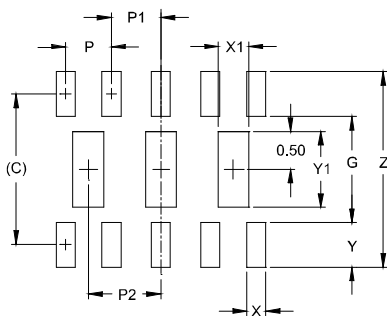


DFN3020-10 Package Outline Drawing



DIMENSIONS			
DIM	MILLIMETERS		
	MIN	NOM	MAX
A	0.50	0.60	0.65
A1	0.00	0.03	0.05
A2	(0.15)		
b	0.15	0.20	0.25
b1	0.25	0.35	0.45
D	2.90	3.00	3.10
E	1.90	2.00	2.10
e	0.60 BSC		
e1	0.65 BSC		
e2	0.95 BSC		
L	0.25	0.30	0.35
L1	0.95	1.00	1.05
N	10		
aaa	0.08		
bbb	0.10		

Suggested Land Pattern



DIMENSIONS	
DIM	MILLIMETERS
C	(1.98)
G	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

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