

Features

- Low operating voltage: 2.5V
- Ultra low capacitance: 5pF (Max)
- Ultra low leakage: nA level
- 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- (Lightning) 25A (8/20 μs)
- – IEC61000-4-4 (EFT) 40A (5/50ns)
- RoHS Compliant
- Lead Finish: NiPdAu

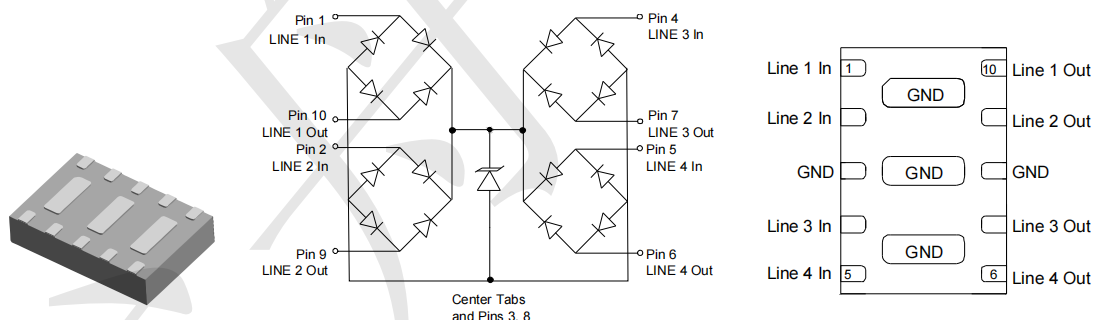
Mechanical Characteristics

- Package: DFN3020-10
- Lead Finish: Matte Tin
- Case Material: “Green” Molding Compound.
- Moisture Sensitivity: Level 3 per J-STD-020
- Terminal Connections: See Diagram Below
- Shipping Qty :3000/7Inch Tape & Reel

Applications

- Digital Visual Interface (DVI)
- Projection TV Monitors and Flat Panel Displays
- Notebook Computers
- Set Top Box
- Projection TV

Dimensions and Pin Configuration



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

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20us)		400	W
IEC61000-4-2(ESD)	Air Contact	± 30 ± 30	KV
Peak Pulse Current(8/20μs)	I _{PP}	25	A
Operating Temperature Range	T _J	-55 to +125	°C
Storage Temperature Range	T _{stg}	-55 to +150	°C

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

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Working Voltage	V _{RWM}				2.5	V
Punch-Through Voltage	V _{PT}	I _T =2μA	3.5			V
Snap-Back Voltage	V _{SB}	I _{SB} =50mA	2.8			V
Reverse Leakage Current	I _R	V _{RWM} =2.5V			0.5	μA
Clamping Voltage	V _C	I _{PP} =1A, t _p =8/20μs, Any I/O Pin to Ground			5.5	V
Clamping Voltage	V _C	I _{PP} =10A, t _p =8/20μs, Any I/O Pin to Ground			10.5	V
Clamping Voltage	V _C	I _{PP} =25A, t _p =8/20μs, Any I/O Pin to Ground			18	V
Junction Capacitance	C _J	V _R =0V, f=1MHz, Any I/O Pin to Ground		3.8	5	pF
Junction Capacitance	C _J	V _R =0V, f=1MHz, Between I/O Pins		1.7	2.5	pF

Typical Performance Characteristics ($T_A=25^\circ\text{C}$ unless otherwise Specified)

Fig1. 8/20 μs Pulse Waveform

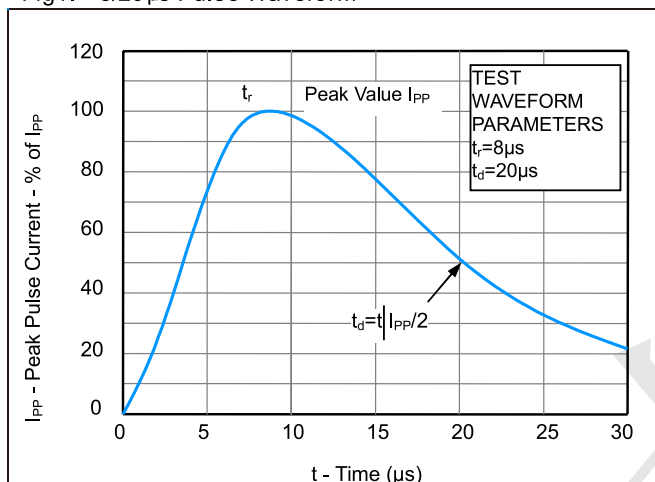


Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)

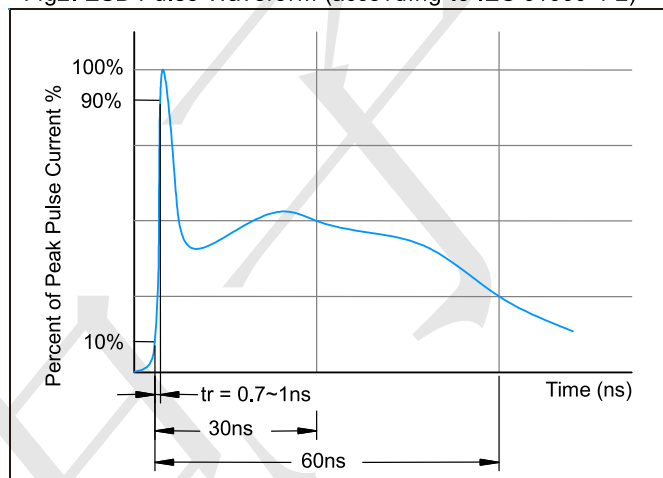
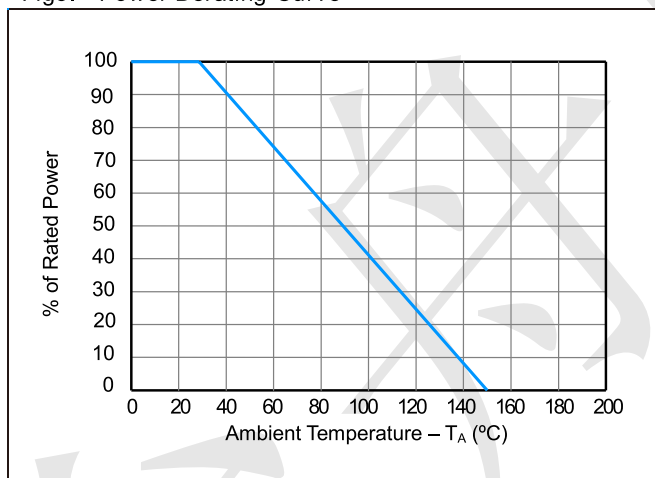
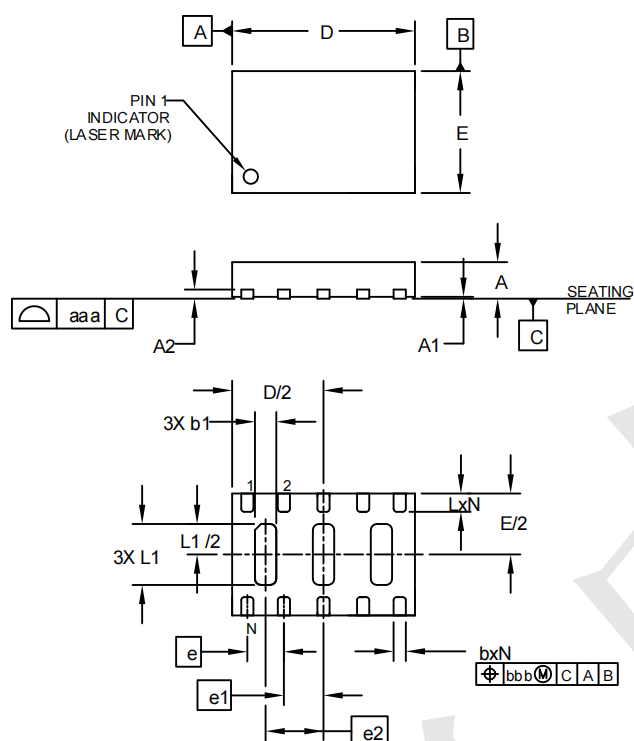


Fig3. Power Derating Curve

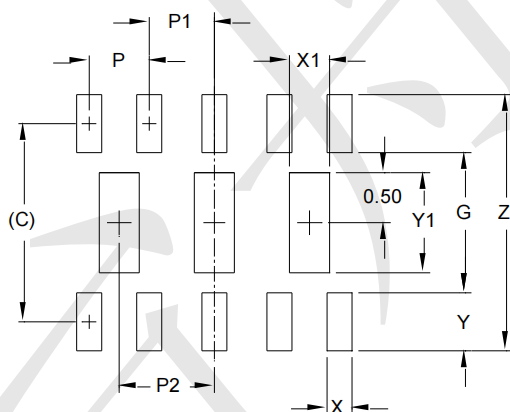


DFN3020-10 Package Outline Drawing



DIM	DIMENSIONS 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