

Features

- Ultra low leakage: nA level
- Ultra low operating voltage: 3.3V
- Ultra low clamping voltage
- Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
Air discharge: $\pm 25\text{kV}$
Contact discharge: $\pm 15\text{kV}$
 - IEC61000-4-4 (EFT) 40A (5/50ns)
 - IEC61000-4-5 (Lightning) 25A (8/20 μs)
- RoHS Compliant

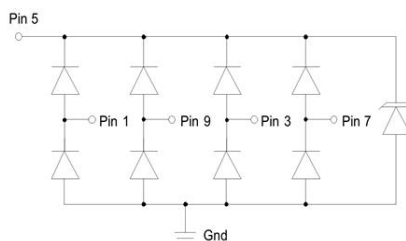
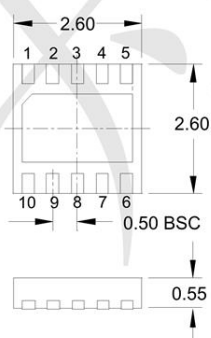
Mechanical Characteristics

- Package: DFN2626-10
- Lead Finish: NiPdAu
- Case Material: “Green” Molding Compound.
- UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 3 per J-STD-020
- Terminal Connections: See Diagram Below

Applications

- Analog Video
- RJ-45 Connectors
- T1/E1 Secondary Protection
- T3/E3 Secondary Protection
- 10/100/1000 Ethernet

Dimensions and Pin Configuration



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

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20μs)	Ppk	450	W
Peak Pulse Current (8/20μs)	Ipp	25	A
ESD per IEC 61000-4-2 (Air)	VESD	±25	kV
ESD per IEC 61000-4-2 (Contact)		±15	
Operating Temperature Range	TJ	-55 to +125	°C
Storage Temperature Range	Tstg	-55 to +150	°C

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

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Working Voltage	VRWM			3.3	V	
Punch-Through Voltage	VPT	3.5			V	IPT = 5μA
Snap-Back Voltage	VSB	2.8			V	ISB = 50mA
Reverse Leakage Current	IR			0.5	uA	VRWM = 3.3V
Clamping Voltage	VC			5.5	V	I _{PP} = 1A (8 x 20μs pulse), any I/O to GND
Clamping Voltage	VC			9.5	V	I _{PP} = 10A (8 x 20μs pulse), any I/O to GND
Clamping Voltage	VC			18	V	I _{PP} = 25A (8 x 20μs pulse), any I/O to GND
Junction Capacitance	CJ		2.0		pF	VR = 0V, f = 1MHz, between I/O pins
Junction Capacitance	CJ		3	5.0	pF	VR = 0V, f = 1MHz, any I/O to GND

Typical characteristics ($T_A=25\text{ C}$, unless otherwise noted)

Fig1. 8/20 μ s Pulse Waveform

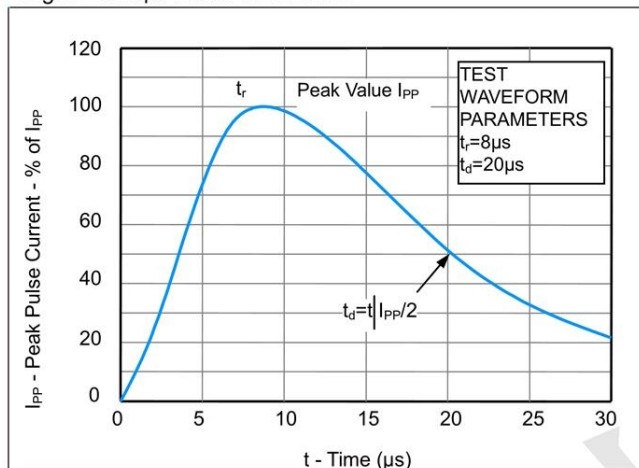


Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)

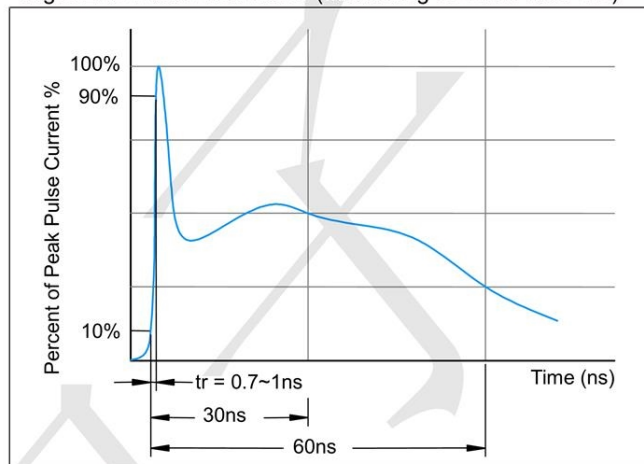
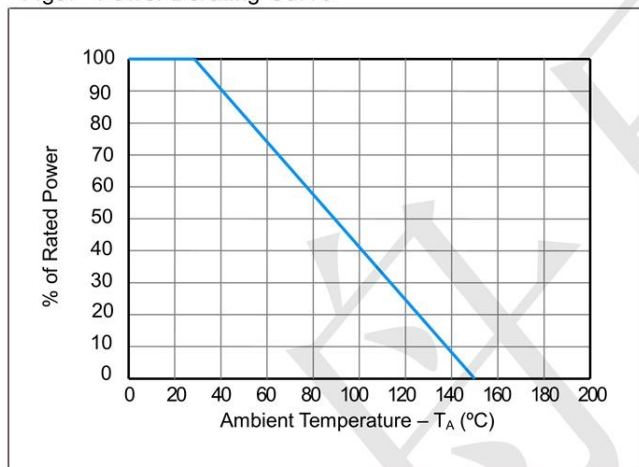
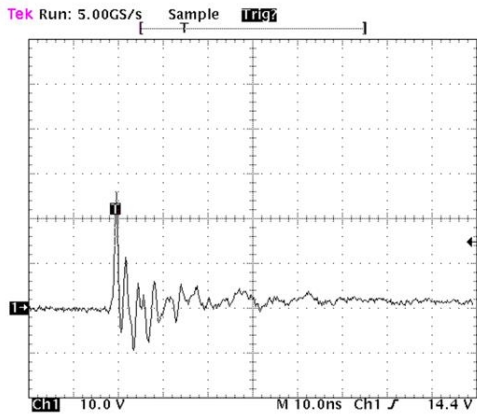


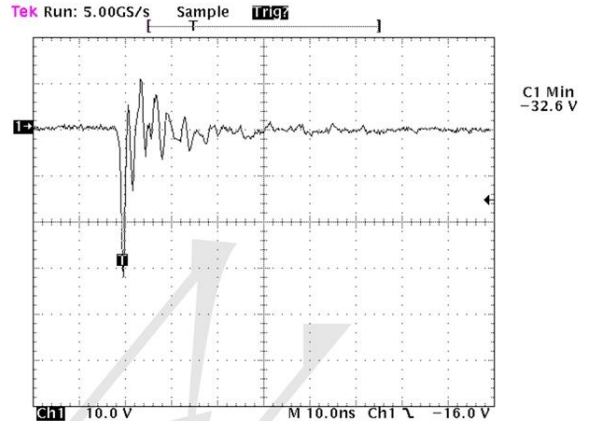
Fig3. Power Derating Curve



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

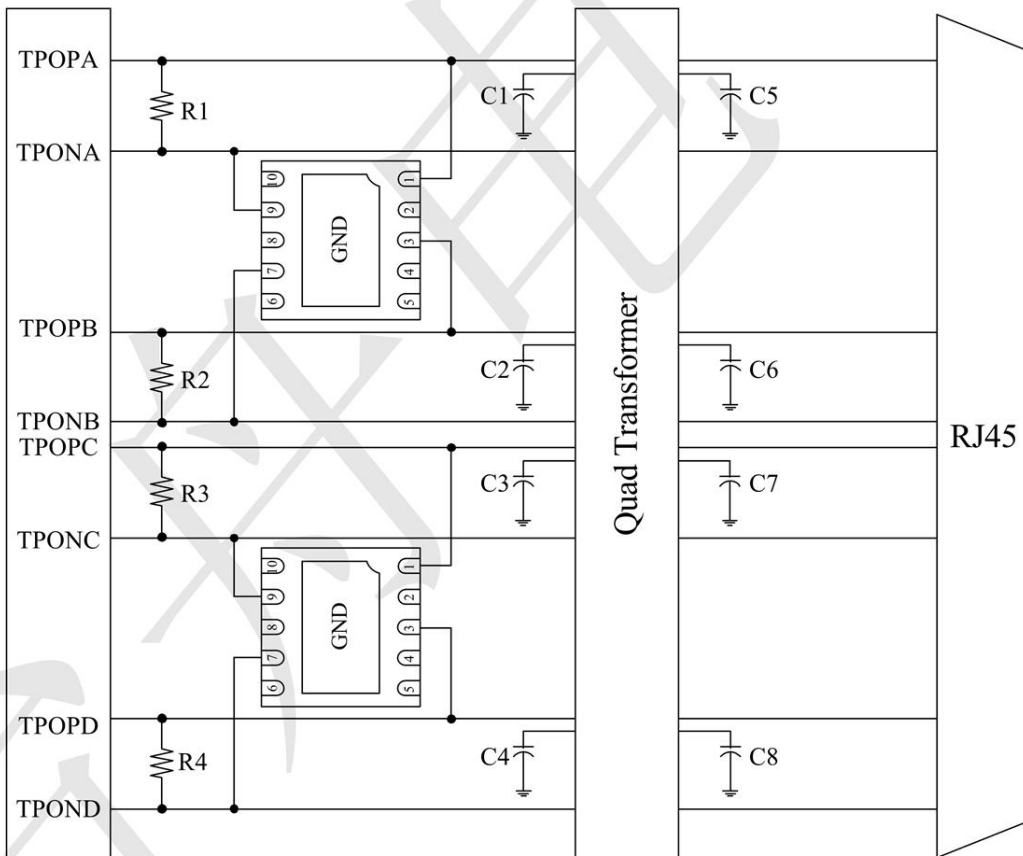


ESD Clamping Voltage
8 kV Contact per IEC61000-4-2



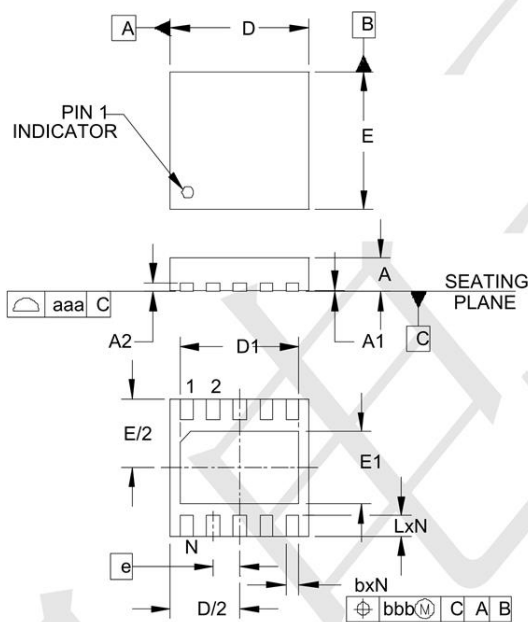
ESD Clamping Voltage
-8 kV Contact per IEC61000-4-2

TPESD3304N on Gigabit Ethernet Protection



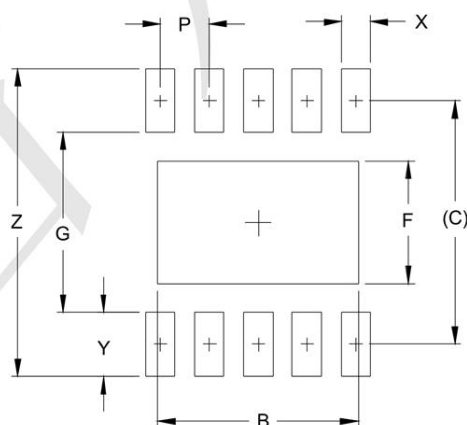
Outline Drawing - DFN2626-10

DFN2626-10 Package Outline Drawing



DIM	INCHES			MILLIMETERS		
	MIN	NOM	MAX	MIN	NOM	MAX
A	.020	.022	.024	0.50	0.55	0.60
A1	.000	.001	.002	0.00	0.03	0.05
A2		(.007)			(0.17)	
b	.007	.010	.012	0.20	0.25	0.30
D	.098	.102	.106	2.50	2.60	2.70
D1	.079	.085	.089	2.00	2.15	2.25
E	.098	.102	.106	2.50	2.60	2.70
E1	.044	.050	.054	1.11	1.26	1.36
e	.020 BSC			0.50 BSC		
L	.011	.014	.016	0.30	0.35	0.40
N	10			10		
aaa	.003			0.08		
bbb	.004			0.10		

Land Pattern - DFN2626-10



DIM	DIMENSIONS	
	INCHES	MILLIMETERS
B	.081	2.05
C	.100	2.50
F	.050	1.26
G	.073	1.85
P	.020	0.50
X	.012	0.30
Y	.025	0.65
Z	.124	3.15