

Features

- Ultra low leakage: nA level
- Operating voltage: 3.3V
- Ultra low clamping voltage
- Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
Air discharge: $\pm 30\text{kV}$
Contact discharge: $\pm 30\text{kV}$
 - IEC61000-4-5 (Lightning) 25A (8/20 μs)
- RoHS Compliant

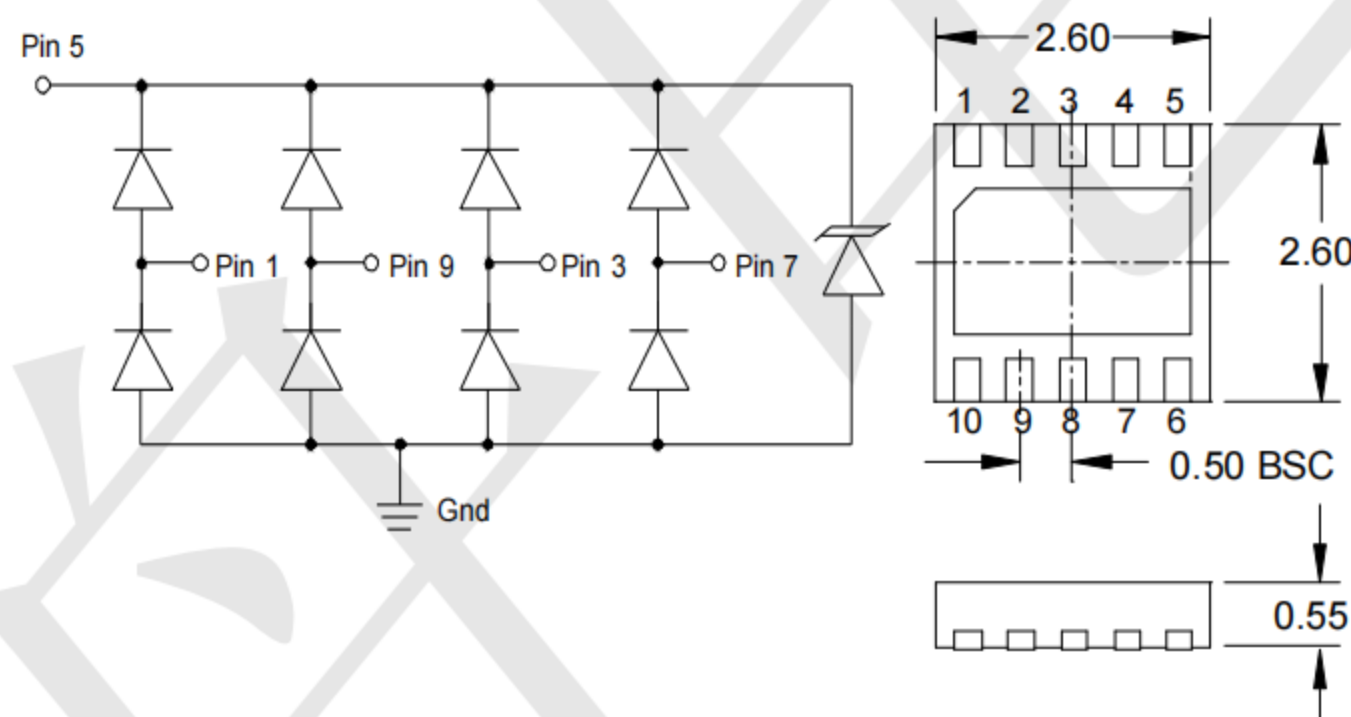
Mechanical Characteristics

- Package: DFN2626-10
- Case Material: "Green" Molding Compound.
- Moisture Sensitivity: Level 3 per J-STD-020
- Terminal Connections: See Diagram Below
- Shipping Qty @3000/7Inch Tape & Reel

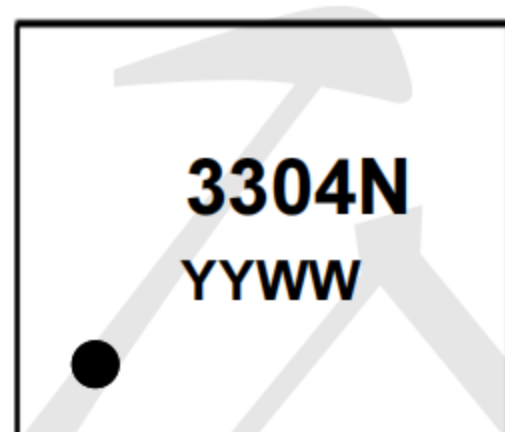
Applications

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

Dimensions and Pin Configuration



Marking



3304N = Device Marking Code
YYWW = Date Code
Dot denotes Pin1

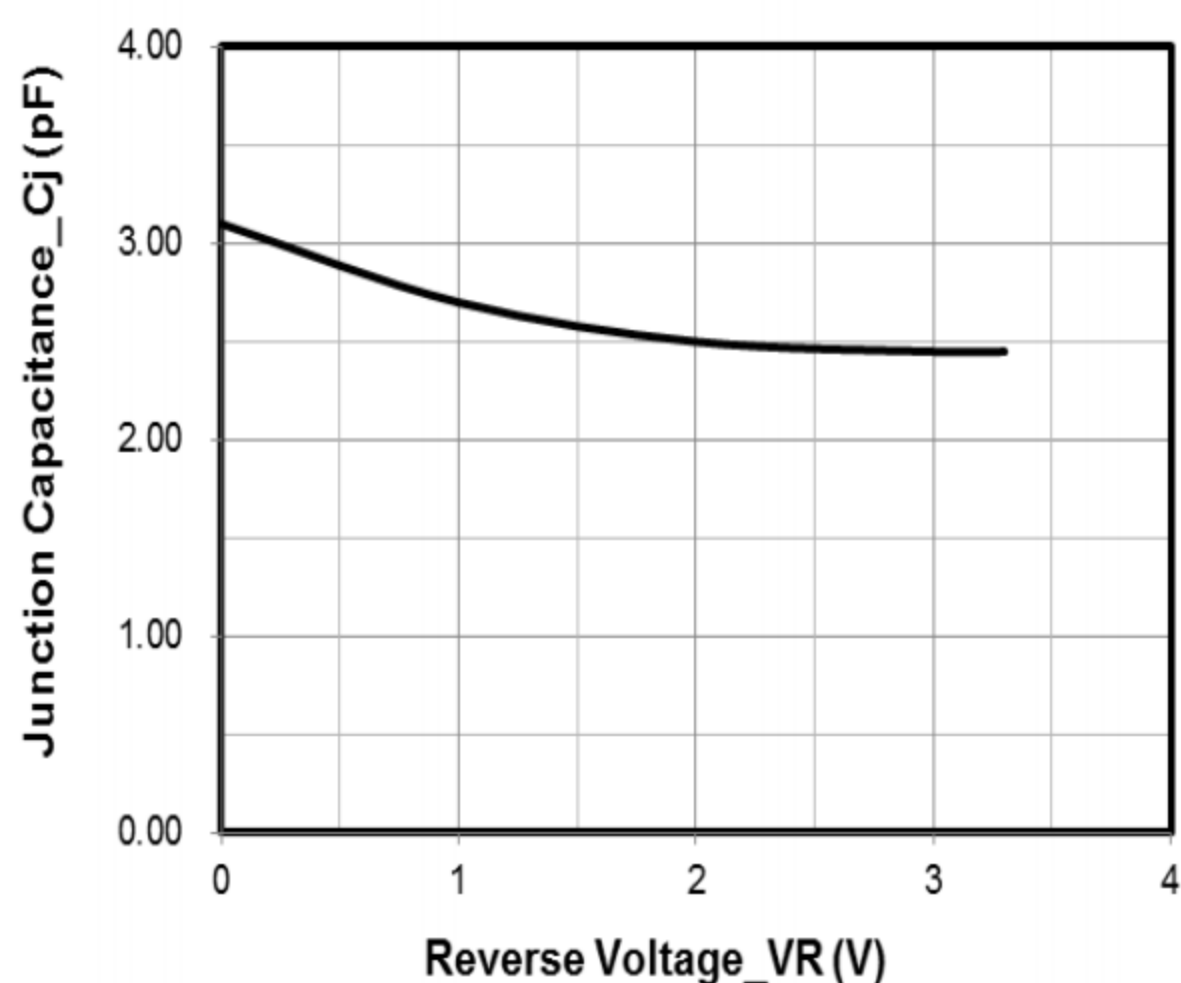
Absolute Maximum Ratings ($T_A=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20 μs)	Ppk	450	W
Peak Pulse Current (8/20 μs)	Ipp	25	A
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	VESD	± 30 ± 30	kV
Operating Temperature Range	TJ	-55 to +125	$^{\circ}\text{C}$
Storage Temperature Range	Tstg	-55 to +150	$^{\circ}\text{C}$

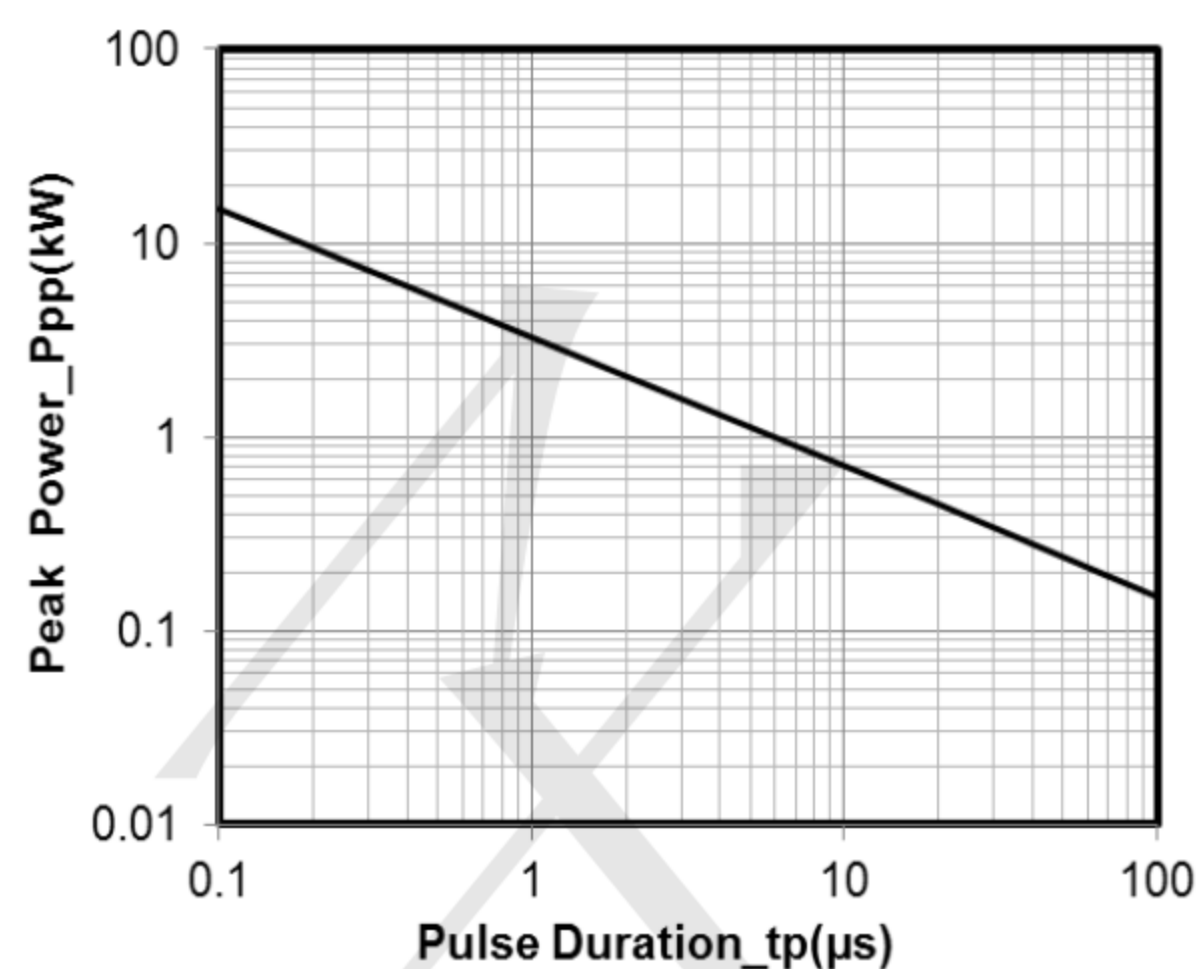
Electrical Characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Working Voltage	VRWM			3.3	V	
Punch-Through Voltage	VPT	3.5			V	IPT = 5 μA
Snap-Back Voltage	VSb	2.8			V	ISb = 50mA
Reverse Leakage Current	IR			0.5	μA	VRWM = 3.3V
Clamping Voltage	VC			5.5	V	Ipp = 1A (8 x 20 μs pulse), any I/O to GND
Clamping Voltage	VC			9.5	V	Ipp = 10A (8 x 20 μs pulse), any I/O to GND
Clamping Voltage	VC			18	V	Ipp = 25A (8 x 20 μs pulse), any I/O to GND
Junction Capacitance	CJ		2.0		pF	VR = 0V, f = 1MHz, between I/O pins
Junction Capacitance	CJ		3.2	5.0	pF	VR = 0V, f = 1MHz, any I/O to GND

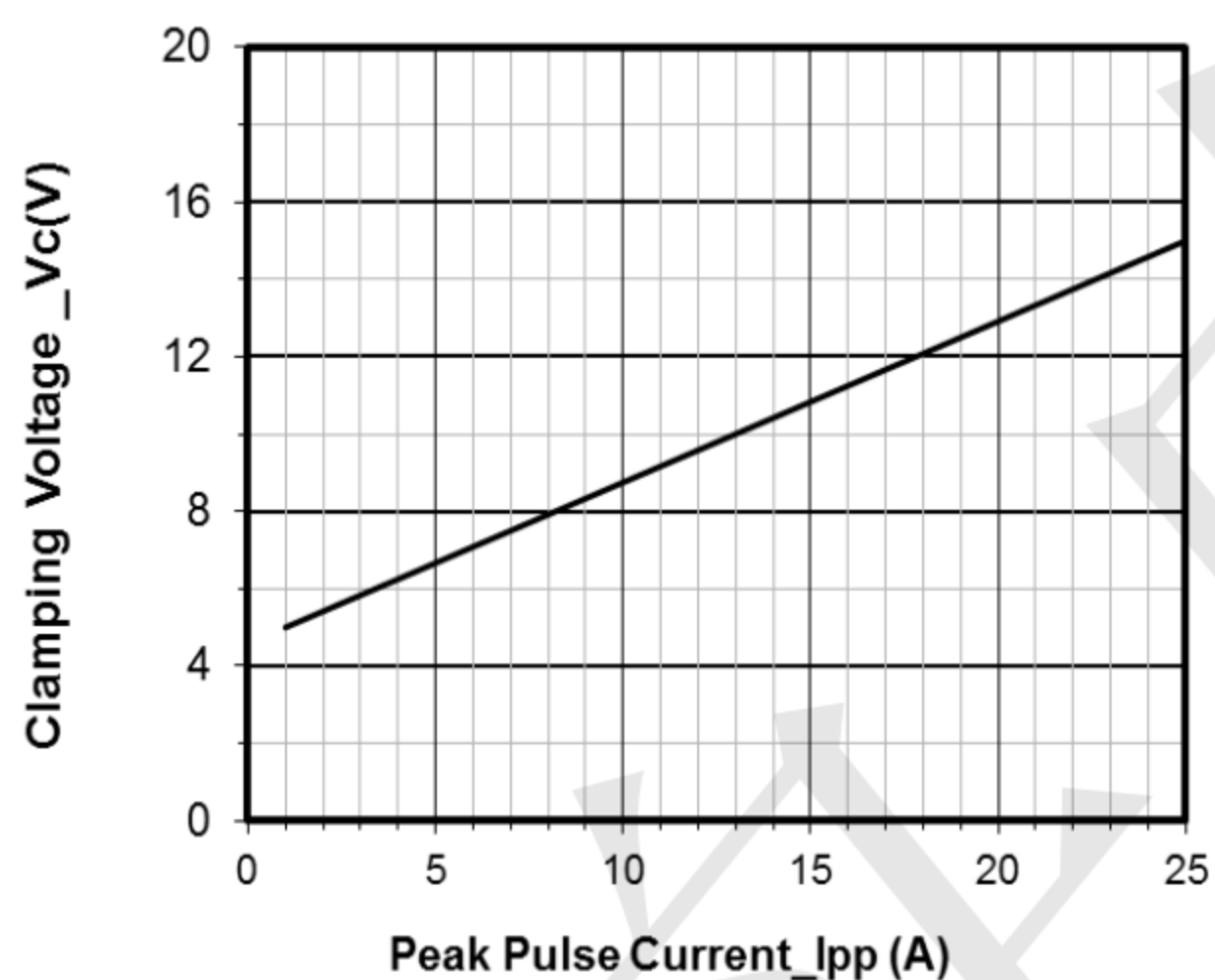
Typical Performance Characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise Specified)



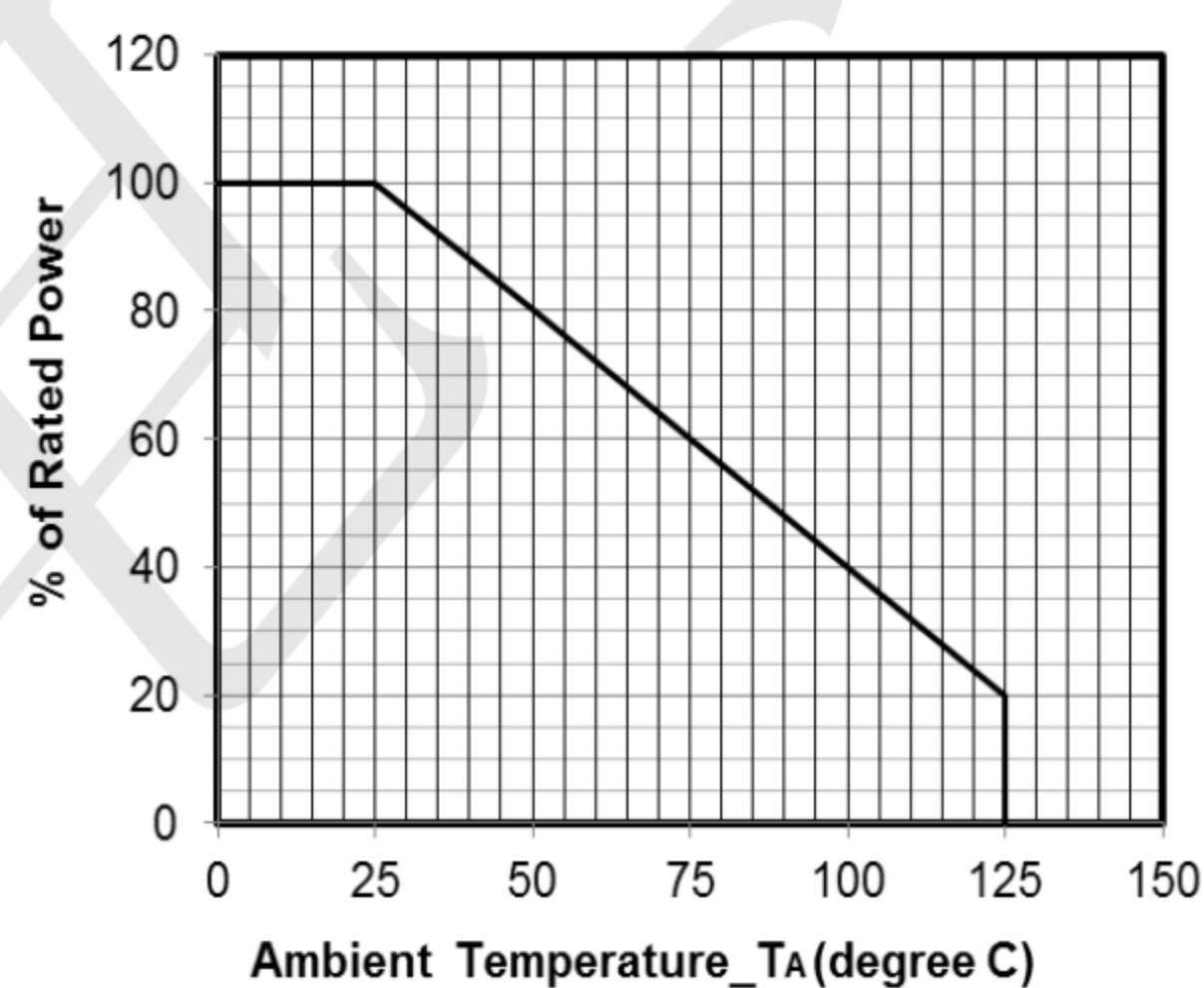
Junction Capacitance vs. Reverse Voltage



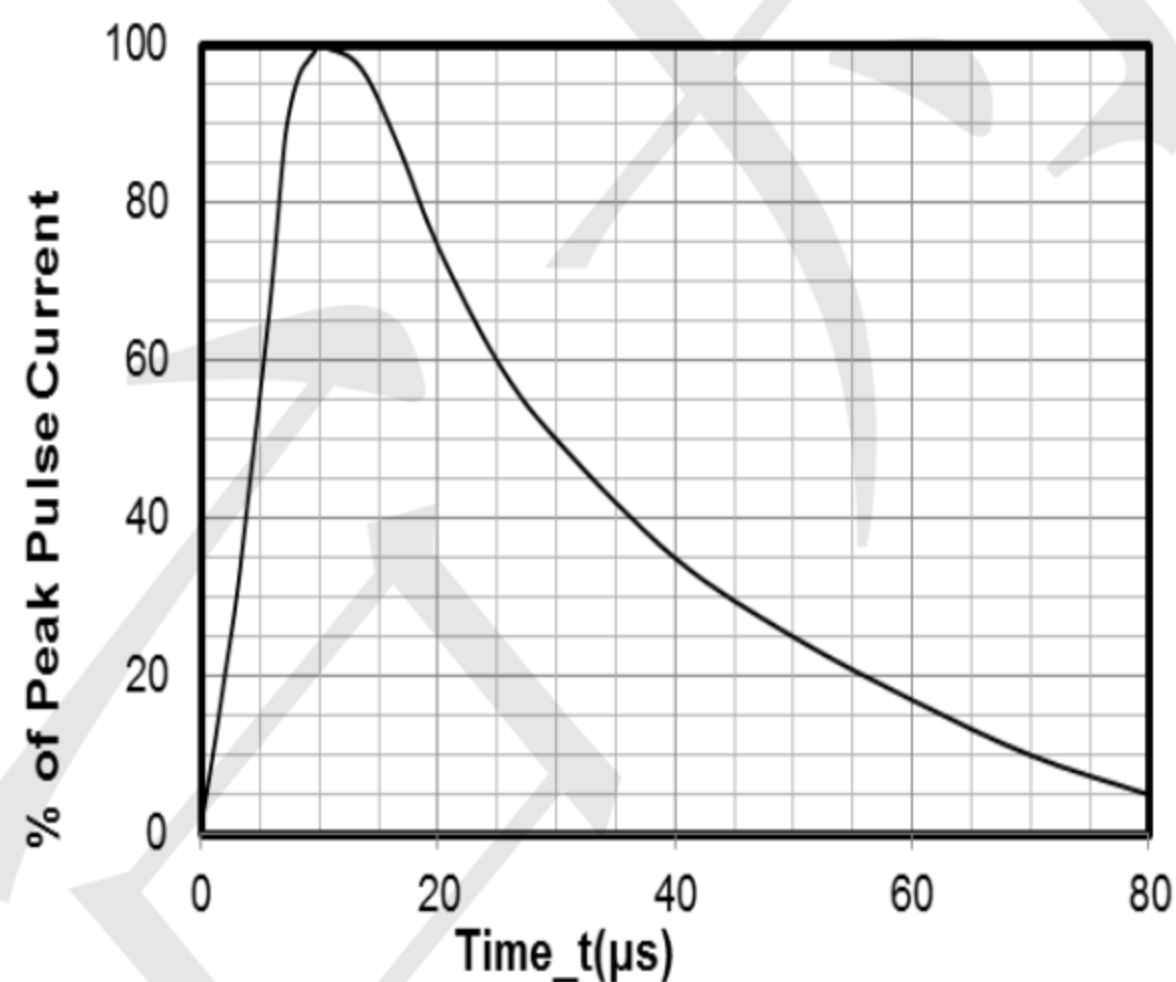
Peak Pulse Power vs. Pulse Time



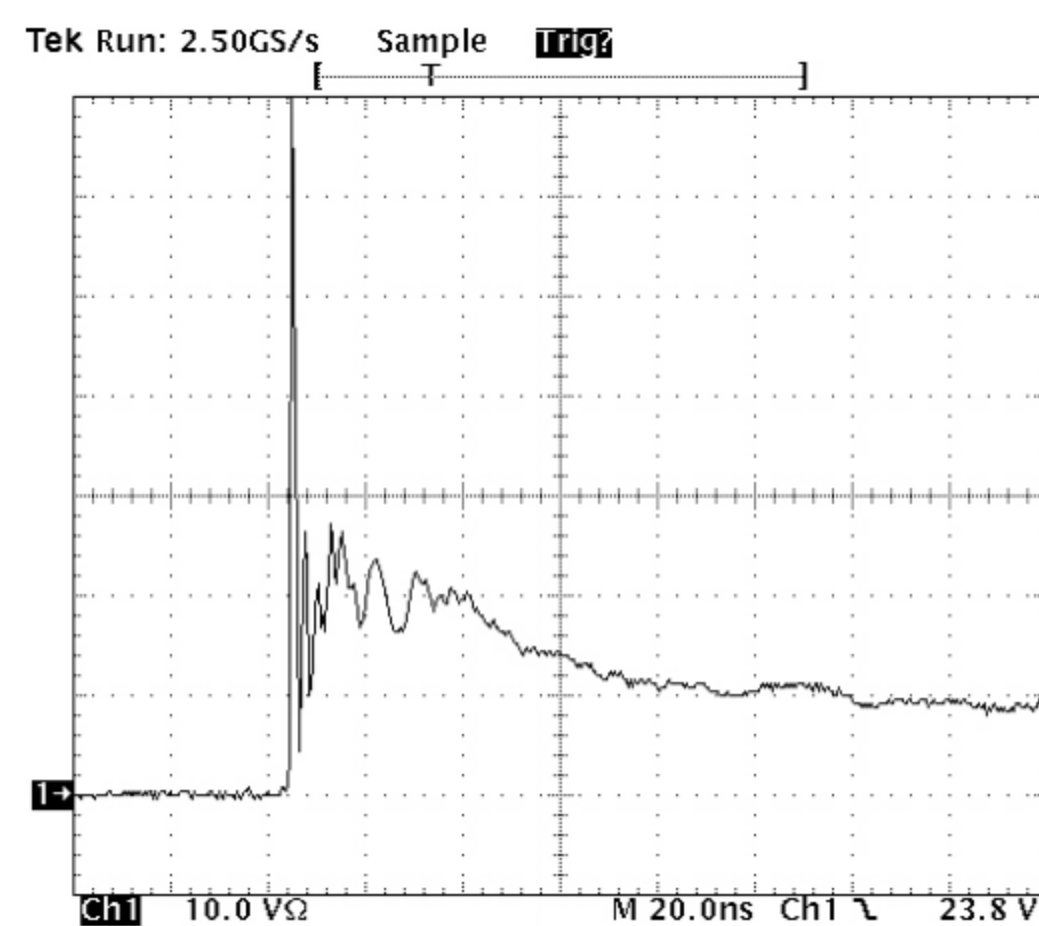
Clamping Voltage vs. Peak Pulse Current



Power Derating Curve



8 X 20 μs Pulse Waveform

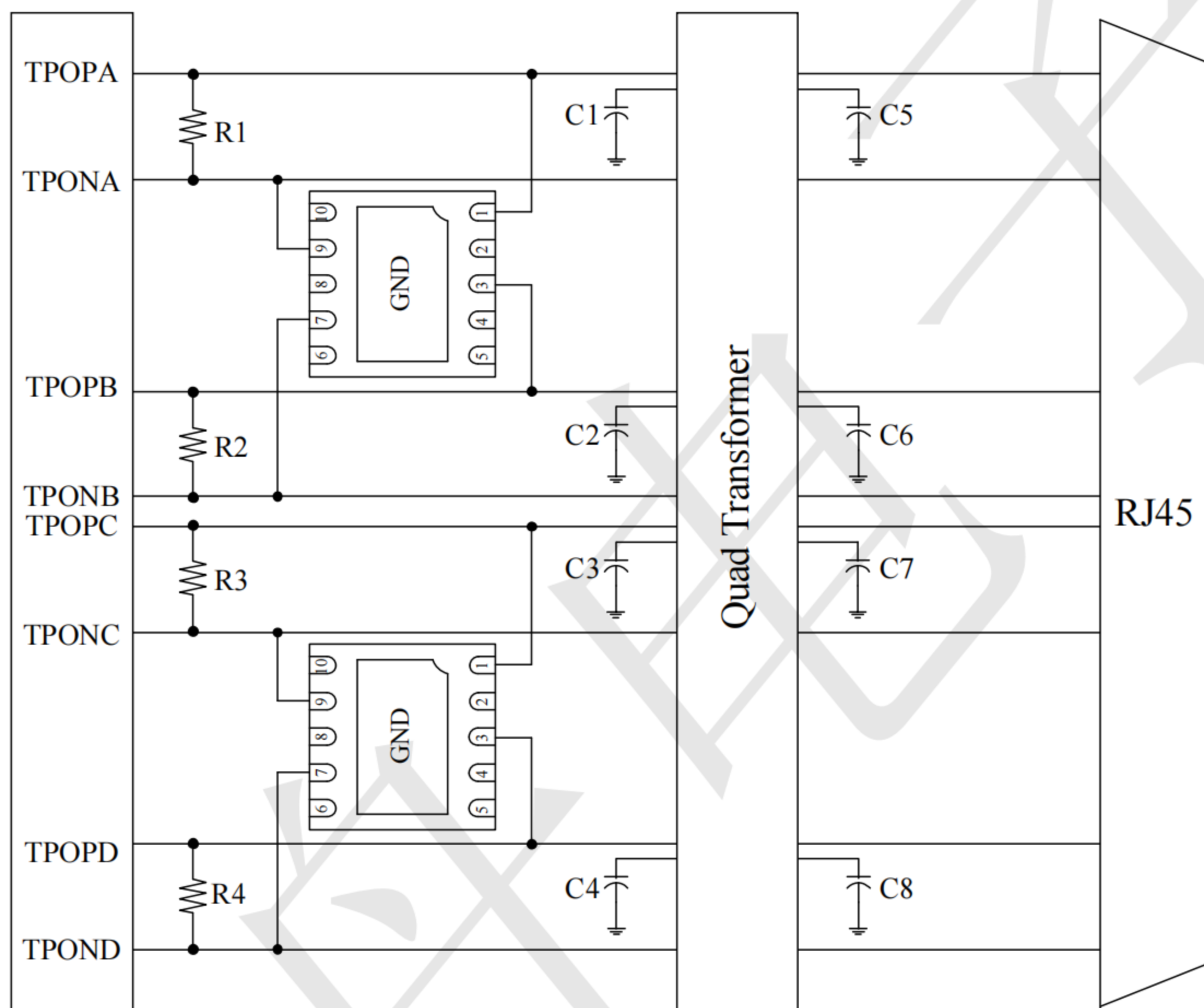


Note: Data is taken with a 10x attenuator

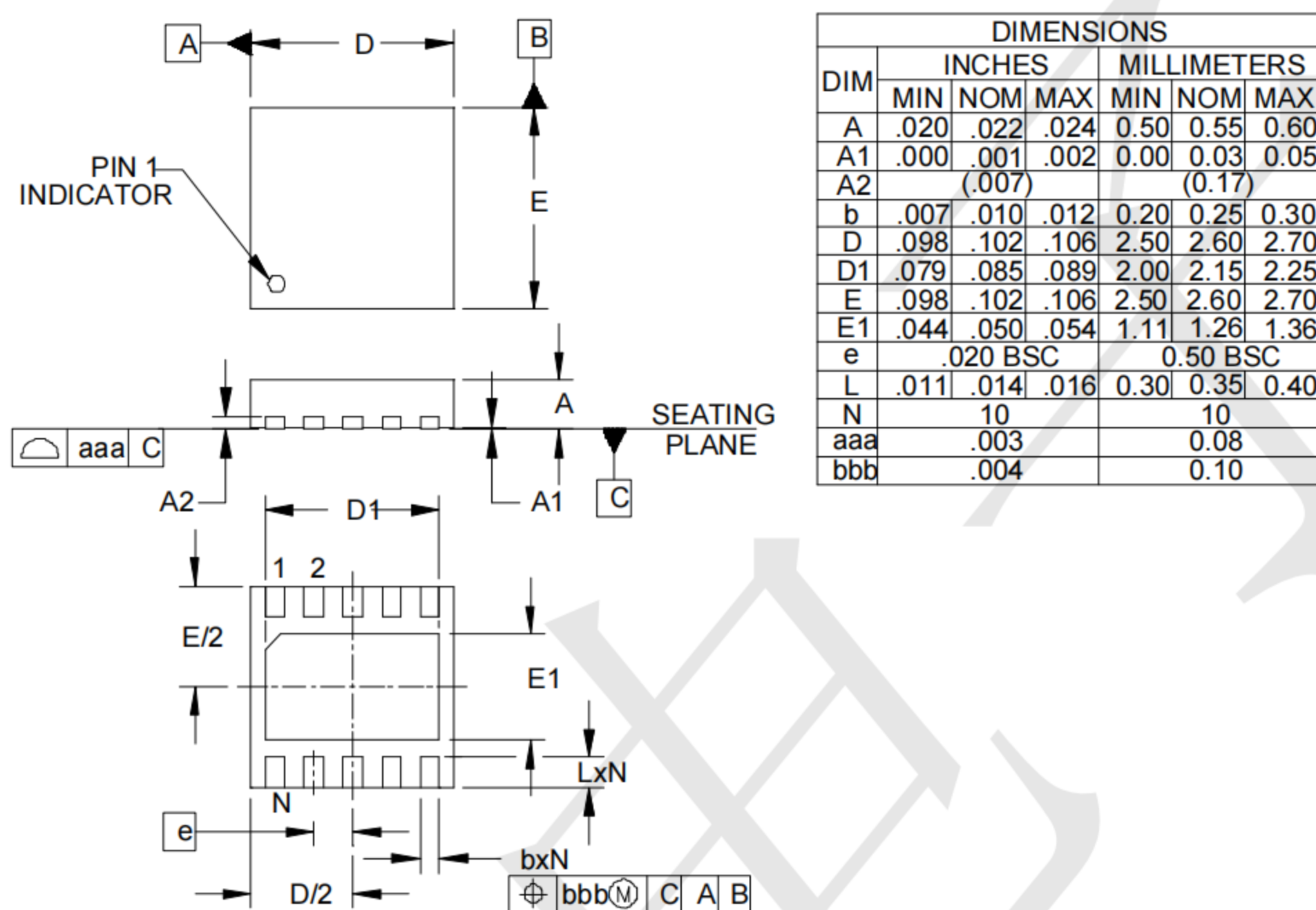
ESD Clamping Voltage

8 kV Contact per IEC61000-4-2

TPESD3304N on Gigabit Ethernet Protection



DFN2626-10 Package Outline Drawing



- NOTES:
1. CONTROLLING DIMENSIONS ARE IN MILLIMETERS (ANGLES IN DEGREES).
 2. COPLANARITY APPLIES TO THE EXPOSED PAD AS WELL AS THE TERMINALS.

Suggested Land Pattern

