

## Features

- ◆ Low capacitance: 0.35 pF typical (I/O to I/O)
- ◆ Low operating voltage: 5V
- ◆ RoHS Compliant
- ◆ IEC61000-4-2 (ESD) ±25kV (air), ±20kV (contact)
- ◆ IEC61000-4-4 (EFT) 40A (5/50ns)
- ◆ IEC61000-4-5 (Lightning) 4.3A(8/20µs)

## Mechanical Characteristics

- ◆ Package: DFN2510-10 (2.5×1.0×0.5mm)
- ◆ Ultra low leakage: nA level
- ◆ 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

- ◆ High Definition Multimedia Interface (HDMI)
- ◆ Digital Visual Interface (DVI)
- ◆ Unified Display Interface (UDI)
- ◆ MDDI Ports
- ◆ PCI Express
- ◆ Serial ATA

## Ordering Information

Part Number	Qty per Reel	Reel Size
TPD4S010DQAR	3000	7"

## Dimensions and Pin Configuration

D1+	1	10	N.C.
D1-	2	9	N.C.
GND	3	8	GND
D2+	4	7	N.C.
D2-	5	6	N.C.

## Marking:

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

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20μs)	IPP	4.3	A
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	VESD	± 25 ± 15	kV
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			5	V	Any I/O pin to ground
Breakdown Voltage	VBR	6.8		9.5	V	IT = 1mA, any I/O pin to ground
Reverse Leakage Current	IR			0.08	μA	VRWM = 5V, any I/O pin to ground
Clamping Voltage	VC			15	V	IPP = 4.3A (8 x 20μs pulse), any I/O pin to ground
Junction Capacitance	CJ		0.35		pF	VR = 0V, f = 1MHz, between I/O pins
Junction Capacitance	CJ		0.6	0.8	pF	VR = 0V, f = 1MHz, any I/O pin to ground

### Characteristic Curves

Fig1. 8/20 $\mu$ s Pulse Waveform

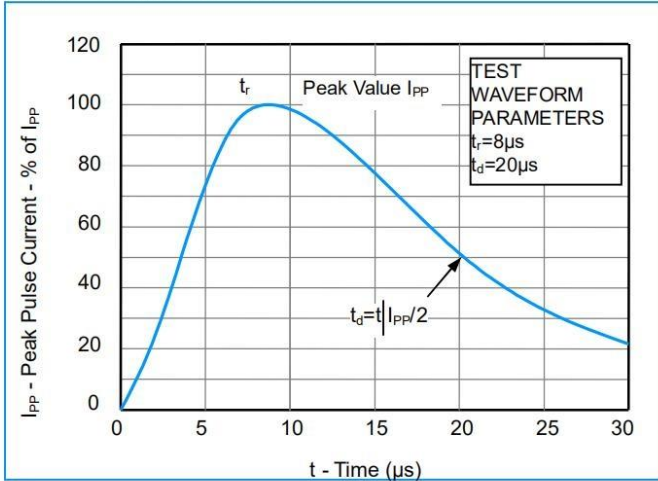


Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)

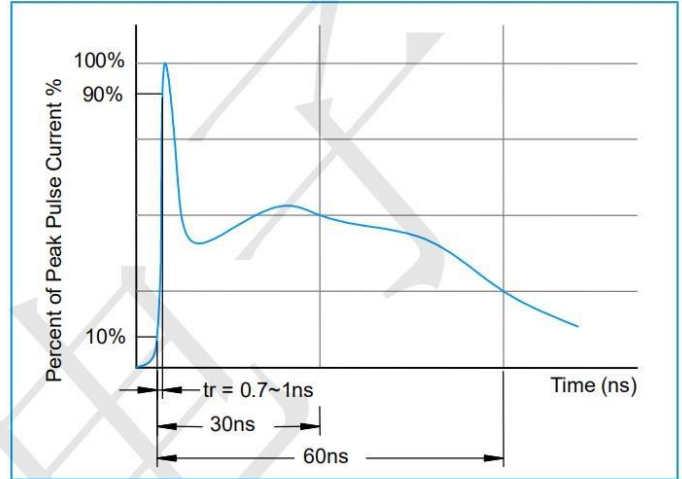
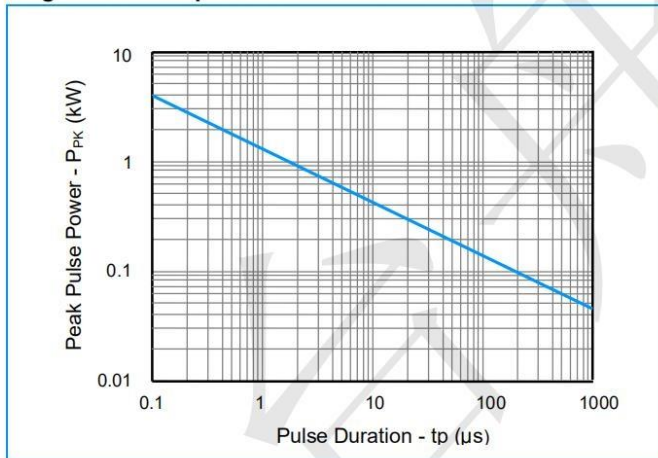
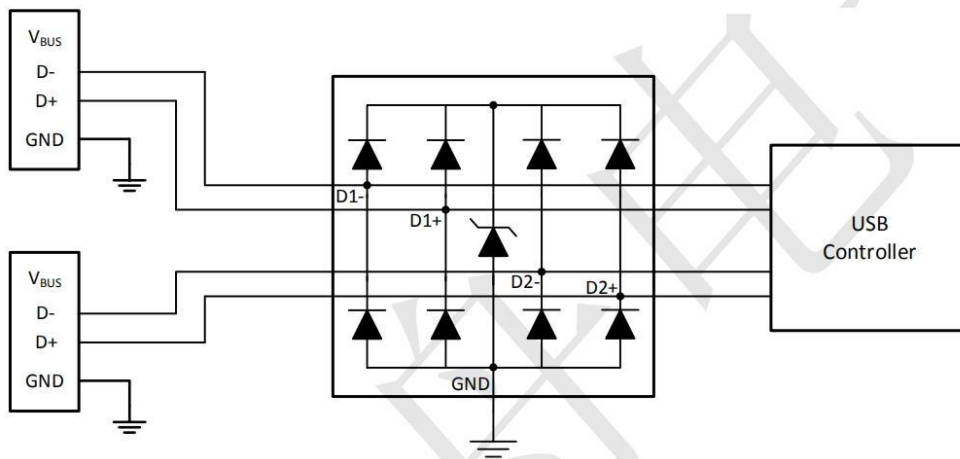


Fig3. Non - Repetitive Peak Pulse Power vs. Pulse Time

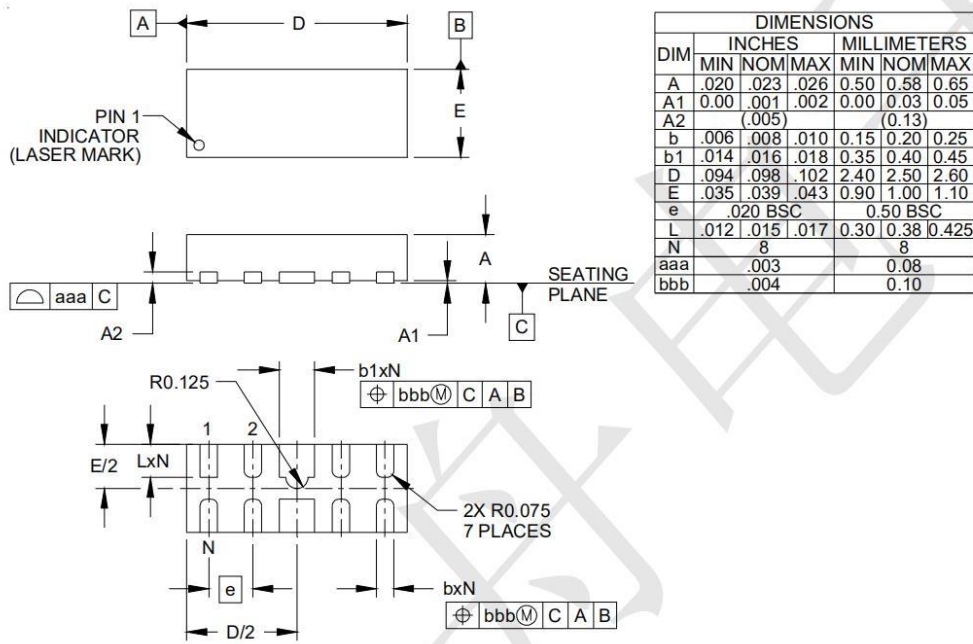


## Application Information

Simplified Schematic



**Outline Drawing - DFN2510-10**



**Land Pattern - DFN2510-10**

