

Description

This is working voltage 5V, 4 Channel Ultra-Low Capacitance ESD Protection Diode in a DFN2510 package.

Applications

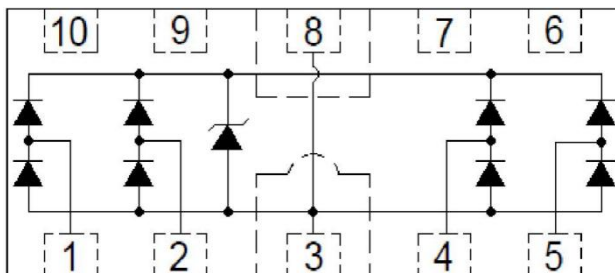
- USB 3.0, USB 2.0
- HDMI 1.3/1.4, Display Port 1.3, eSATA
- Unified Display Interface (UDI)
- Digital Visual Interface (DVI)
- High speed serial interfaces

Features

- Ultra-Low capacitance: 0.45pF (typ.)
- Reverse stand-off voltage: 5V
- IEC 61000-4-2 (Air): ±20KV
- IEC 61000-4-2 (Contact): ±20KV

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Schematic Diagram & Pinning



Marking

See Marking Instructions.

Limiting Values(TA = 25 ° C, unless otherwise specified)

Symbol	Parameter	Conditions	Min	Max	Unit
VESD	Electrostatic Discharge Voltage	IEC 61000-4-2; Contact Discharge	-	±20	kV
		IEC 61000-4-2; Air Discharge	-	±20	kV
PPP	Peak Pulse Power	tP = 8/20 μs	-	63	W
IPPM	Rated Peak Pulse Current	tP = 8/20 μs	-	4.5	A
TA	Ambient Temperature Range	-	-55	125	°C
Tstg	Storage Temperature Range	-	-55	150	°C

Electrical Characteristics (Ta=25°C)

Symbol	Parameter	Conditions	Min	Typ.	Max	Unit
VRWM	Reverse Working Voltage	TA = 25 °C	-	-	5	V
VBR	Breakdown Voltage	IR = 1 mA; TA = 25 °C	6	-	-	V
IR	Reverse Leakage Current	VRWM = 5V; TA = 25 °C	-	-	100	nA
VC	Clamping Voltage	IPP= 1A,tP=8/20μs, Any I/O to GND , Positive	-	-	9.8	V
		IPP=4.5A,tP=8/20μs, Any I/O to GND , Positive	-	-	14	V
CL	Junction Capacitance	VR = 0V, f = 1 MHz, I/O to I/O	-	0.22	0.3	pF
		VR = 0V, f = 1 MHz, I/O to GND	-	0.45	0.6	pF

Typical Characteristics

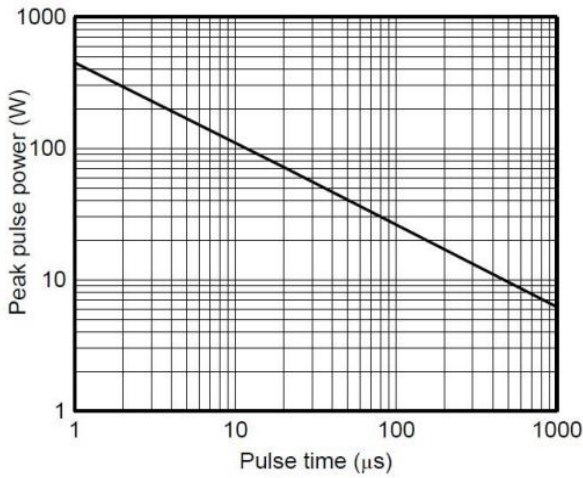


Fig.1 Peak Pulse Power Rating Curve

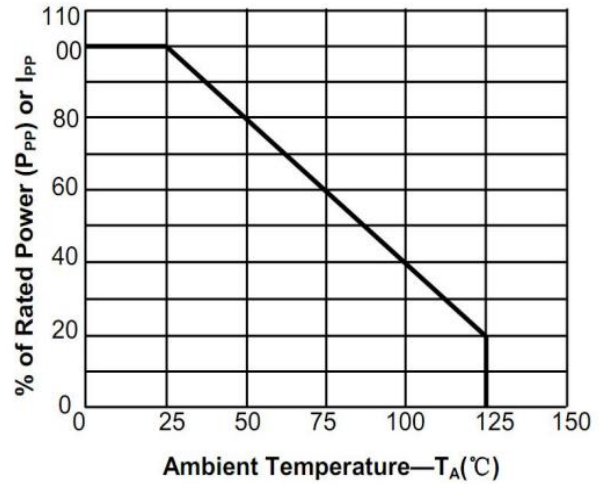


Fig.2 Pulse Derating Curve

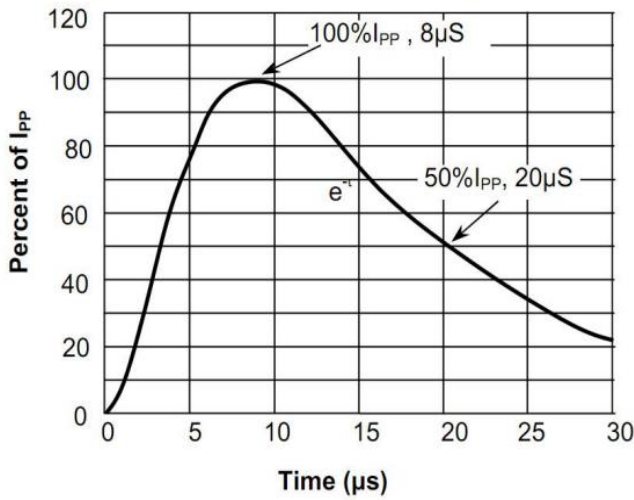


Fig.3 Pulse Waveform-8/20μs

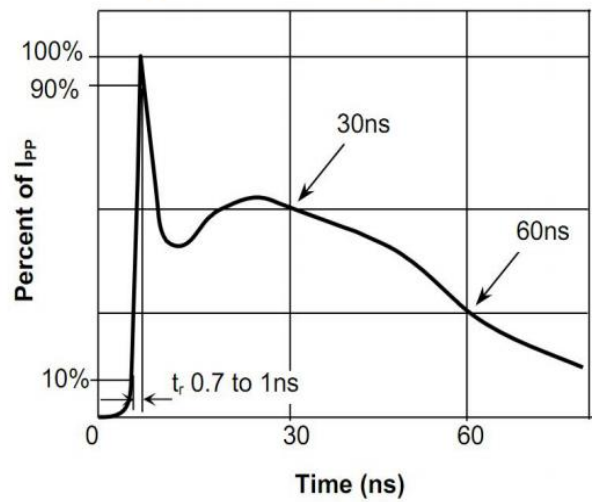


Fig.4 Pulse Waveform-ESD (IEC61000-4-2)

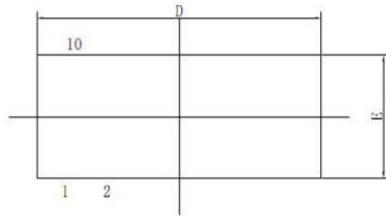
Marking Information



0524P=normal marking
● = Pin1 Logo

Order Information

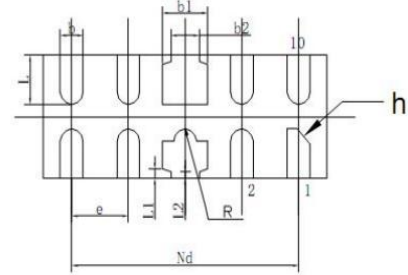
Type	Package	Size (mm)	Delivery Form	Delivery Quantity
CTESD5V0X4C10SZG	DFN2510	2.50x1.00x0.50	7" T&R	3,000

Package Outline Dimensions


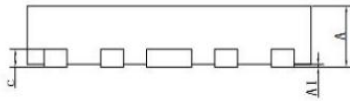
Top View



Side View



BottomView



Symbol	Dimensions in millimeters		
	Min	Nom	Max
A	0.45	0.50	0.55
A1	-	0.02	0.05
b	0.15	0.20	0.25
b1	0.35	0.40	0.45
b2	0.20	0.25	0.30
c	0.10	0.15	0.20
D	2.45	2.50	2.55
e	0.50BSC		
Nd	2.00 BSC		
E	0.95	1.00	1.05
L	0.35	0.40	0.45
L1	0.075 REF		
L2	0.05 REF		
h	0.08	0.12	0.15
R	0.05	0.10	0.15