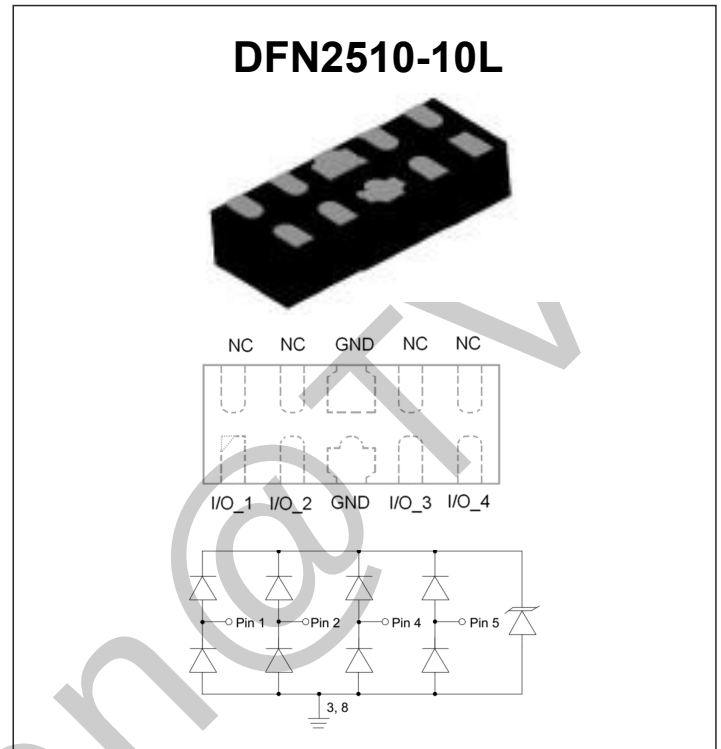


4-Line Ultra Low Capacitance TVS Diode Array
Features

- Ultra low leakage: nA level
- Ultra low capacitance: 0.3pF typical (I/O to I/O)
- Operating voltage: 5V
- Low clamping voltage
- Up to 4 lines protects
- IEC 61000-4-2 (ESD): Air $\pm 15\text{kV}$, Contact $\pm 15\text{kV}$
- IEC 61000-4-5 (Lightning): 2.5A (8/20 μs)
- RoHS Compliant

Mechanical Data

- Package: DFN2510-10 ($2.5 \times 1.0 \times 0.5\text{mm}$)
- Case Material: "Green" Molding Compound
- 10-pin leadless DFN package
- Flow through style for differential line routing
- Marking: 0524P (Device Marking Co)


Applications

- HDMI 1.3 & 1.4, USB 3.0 & 3.1 and MDDI ports
- Monitors and flat panel displays
- Set-top box and Digital TV
- Video graphics cards
- HDMI 2.0
- Digital Visual Interface (DVI)
- Notebook Computers
- PCI Express and Serial SATA Ports

Ordering information

Order code	Marking	Package	Packaging option	Base quantity	Packaging specification
DCE0524P5LQ	0524P	DFN2510-10	Tape and reel	3000pcs / reel	EIA STD RS-481

Absolute Maximum Ratings

Ratings at 25 °C, ambient temperature unless otherwise specified

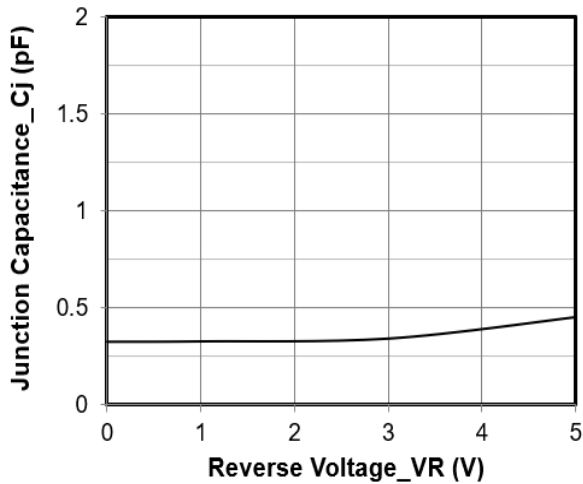
Parameter	Symbol	Value	Unit
Peak Pulse Power ($T_P=8/20\mu\text{s}$)	P_{PP}	30	W
ESD contact/air discharge (IEC-61000-4-2)	V_{ESD}	$\pm 15/\pm 15$	kV
Peak Pulse Current ($T_P = 8/20\mu\text{s}$)	I_{PP}	2.5	A
Junction Temperature	T_J	-55 to +125	°C
Storage temperature	T_{STG}	-55 to +150	°C

Electrical Characteristics

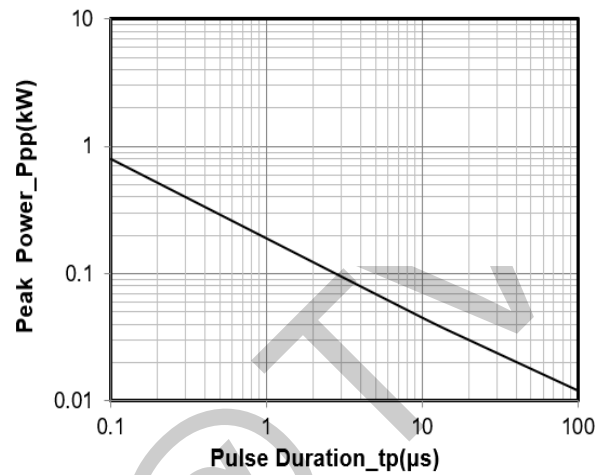
(T_A = 25 °C unless otherwise specified)

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Reverse stand-off Voltage	V _{RWM}		-	-	5	V
Holding Voltage	V _{BR}	I _T = 1mA	6	-	-	V
Reverse Leakage Current	I _R	V _{RWM} = 5V	-	-	0.5	μA
Clamping Voltage	V _C	I _{PP} = 1A, t _p = 8/20 μs	-	8	9	V
Clamping Voltage	V _C	I _{PP} = 2.5A, t _p = 8/20 μs	-	10	12	V
Junction Capacitance	C _J	V _R = 0V, f = 1MHz	-	0.60	-	pF
Junction Capacitance	C _J	V _R = 0V, f = 1MHz; I/O-I/O	-	0.17	0.30	pF

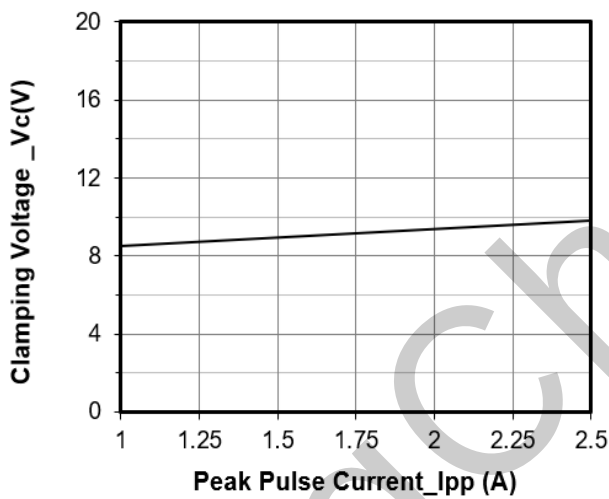
Typical Performance Characteristics ($T_A=25^\circ\text{C}$ unless otherwise Specified)



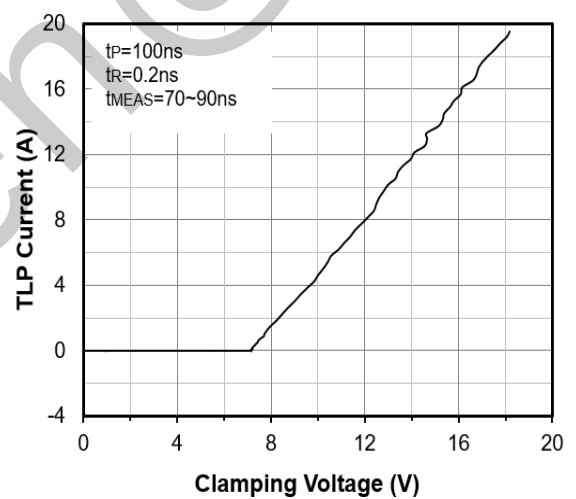
Junction Capacitance vs. Reverse Voltage



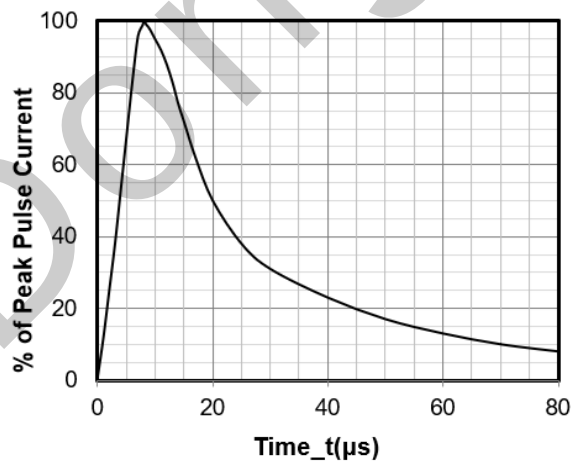
Peak Pulse Power vs. Pulse Time



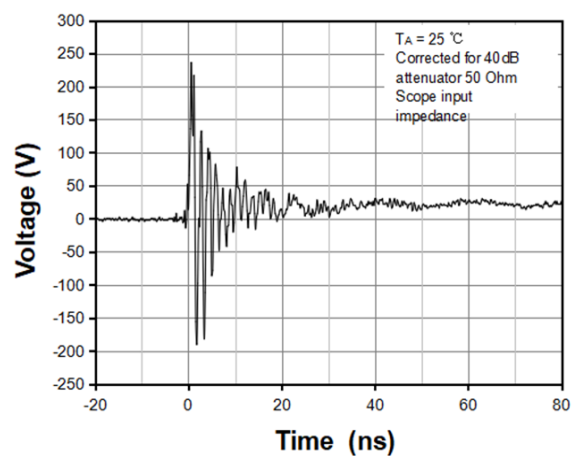
Clamping Voltage vs. Peak Pulse Current



TLP Measurement

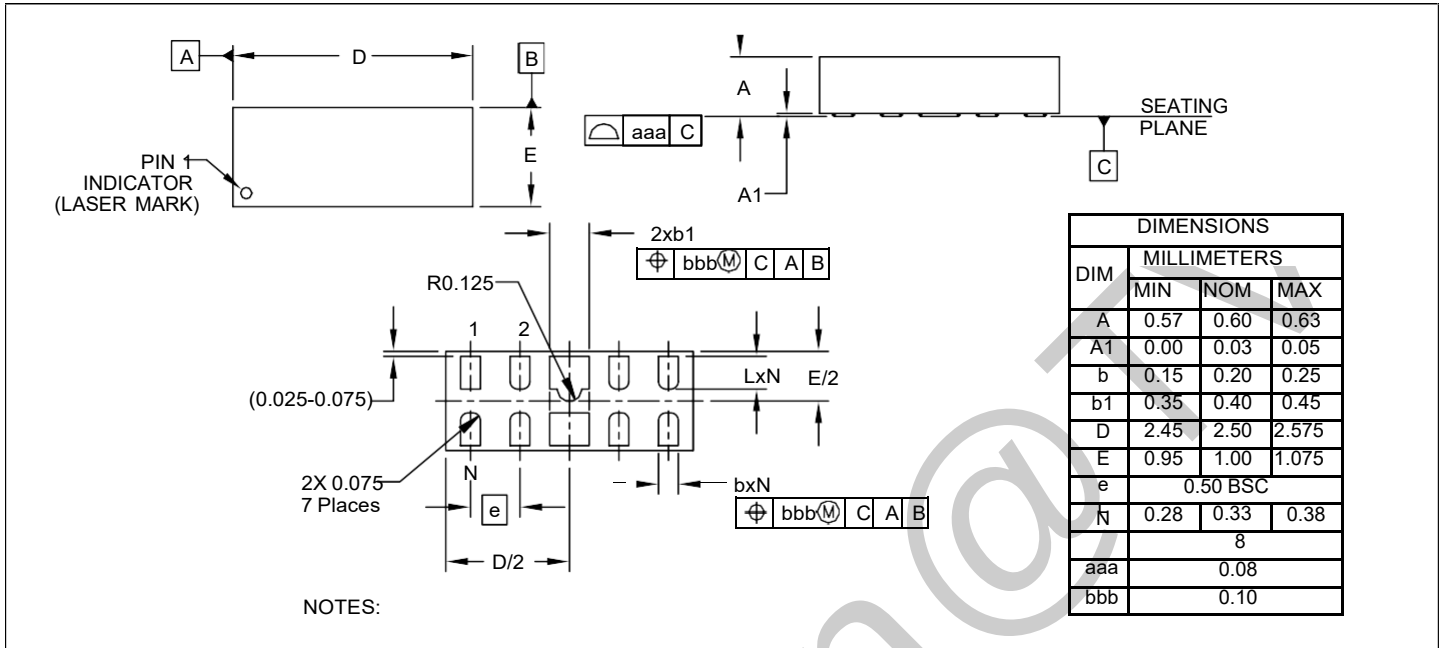


8 X 20 μs Pulse Waveform

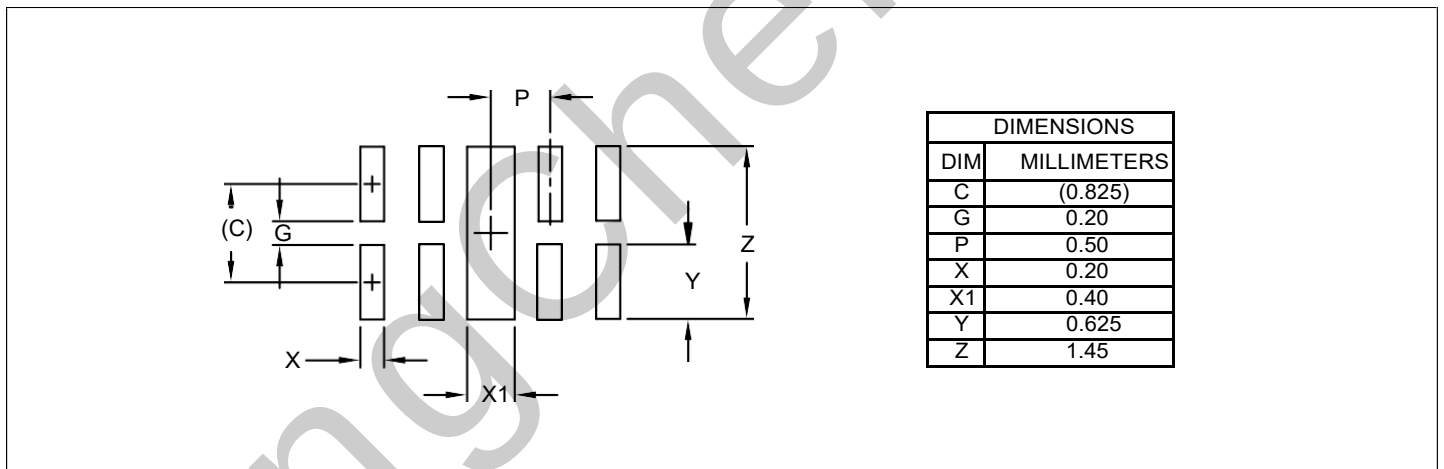


4-Line Ultra Low Capacitance TVS Diode Array

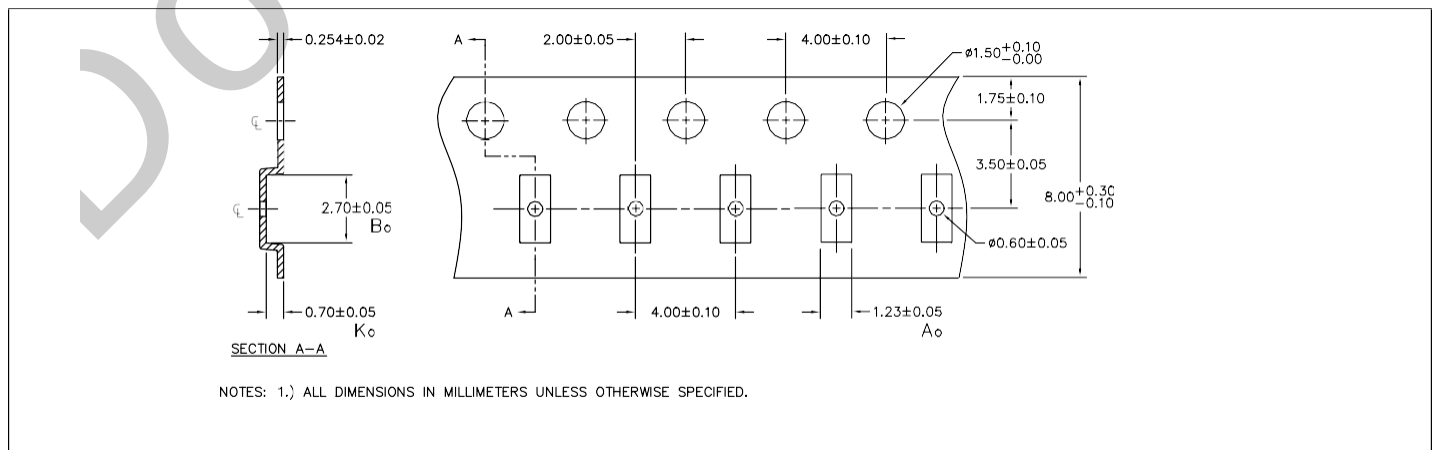
Package Dimensions



Pad Dimensions



Package Information



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Head Office

Contact Information:

DongChen Electronics Co.,Ltd.

Address: 2F., No.407, Sec. 2, Longgang Rd.,Zhongli Dist.,
Taoyuan City 32097, Taiwan (R.O.C.)

Tel: 03-284-1808

Fax: 03-284-1404

Mail:dc@dongchen.com.tw

Web:www.dongchen.com.tw