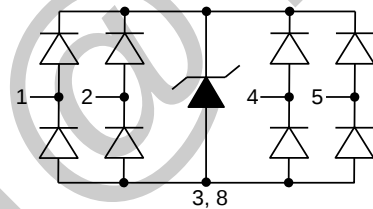
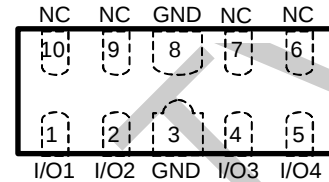


4-Line Ultra Low Capacitance TVS Diode Array
Features

- Ultra low capacitance: 0.16pF typ (I/O to I/O)
- Ultra low leakage: nA level
- Low operating voltage: 5V
- Low clamping voltage
- Up to 4 lines protected
- IEC 61000-4-2 (ESD): $\pm 15\text{kV}$ Air / $\pm 15\text{kV}$ Contact
- IEC 61000-4-5 (Lightning): 2.5A (8/20 μs)
- RoHS compliant

Mechanical Data

- Package: DFN2510-10 ($2.5 \times 1.0 \times 0.5\text{mm}$)
- Lead finish: Matte Tin
- Case material: Green molding compound
- Moisture sensitivity: Level 3 per J-STD-020
- Marking: 0524P

DFN2510-10L


Circuit and Pin Schematic

Applications

- HDMI 1.3/1.4/2.0, USB 2.0/3.0, MDDI
- Monitors and flat panel displays
- Set-top box and digital TV
- Video graphics cards, DVI
- Notebook computers
- PCI Express and Serial SATA

Ordering information

Order code	Marking	Package	Packaging option	Base quantity	Packaging specification
DC0524P5C	0524P	DFN2510-10	Tape and reel	10000pcs / reel	EIA STD RS-481

Absolute Maximum Ratings

Ratings at 25 °C, ambient temperature unless otherwise specified

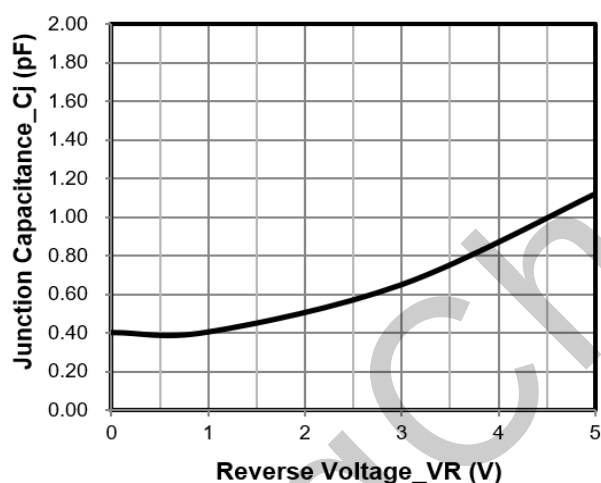
Parameter	Symbol	Value	Unit
Peak Pulse Power ($T_P=8/20\mu\text{s}$)	P_{PP}	40	W
ESD contact/air discharge (IEC-61000-4-2)	V_{ESD}	$\pm 15/\pm 15$	kV
Peak Pulse Current ($T_P = 8/20\mu\text{s}$)	I_{PP}	2.5	A
Junction Temperature	T_J	-55 ~ +125	°C
Storage temperature	T_{STG}	-55 to +150	°C

Electrical Characteristics

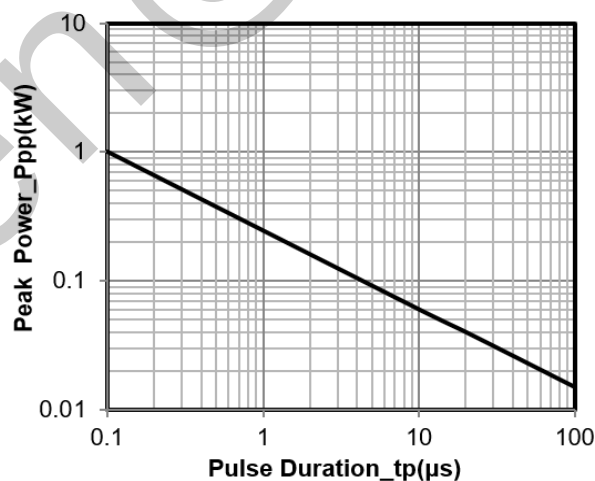
($T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Reverse stand-off Voltage	V_{RWM}		-	-	5	V
Holding Voltage	V_{BR}	$I_T = 1\text{mA}$	6	-	-	V
Reverse Leakage Current	I_{R}	$V_{\text{RWM}} = 5\text{V}$	-	-	0.5	μA
Clamping Voltage	V_{C}	$I_{\text{PP}} = 1\text{A}, t_p = 8/20\mu\text{s}$	-	-	9	V
Clamping Voltage	V_{C}	$I_{\text{PP}} = 2.5\text{A}, t_p = 8/20\mu\text{s}$	-	-	16	V
Junction Capacitance	C_{J}	$V_{\text{R}} = 0\text{V}, f = 1\text{MHz}$	-	0.16	-	pF

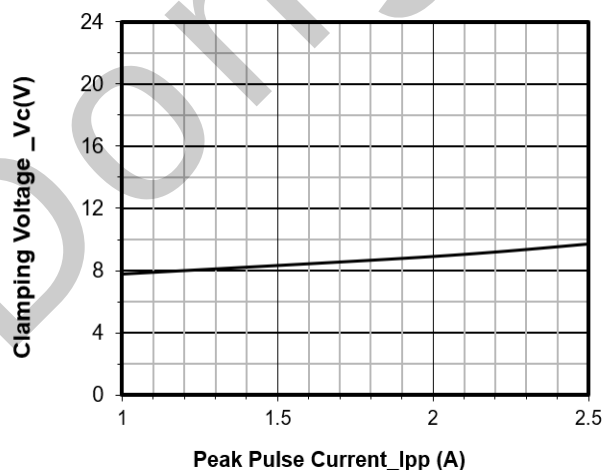
Typical Performance Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise Specified)



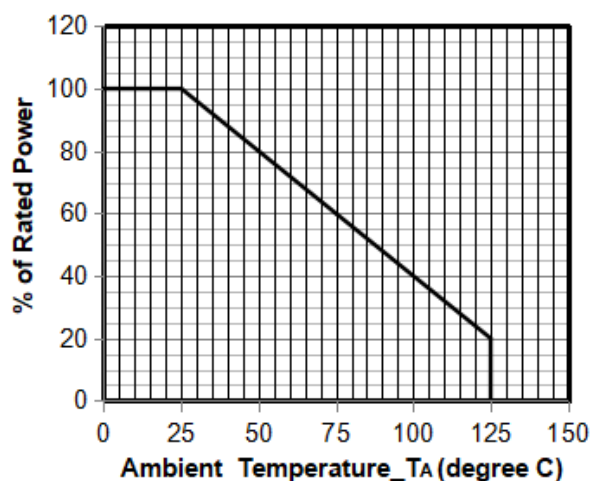
Junction Capacitance vs. Reverse Voltage



Peak Pulse Power vs. Pulse Time



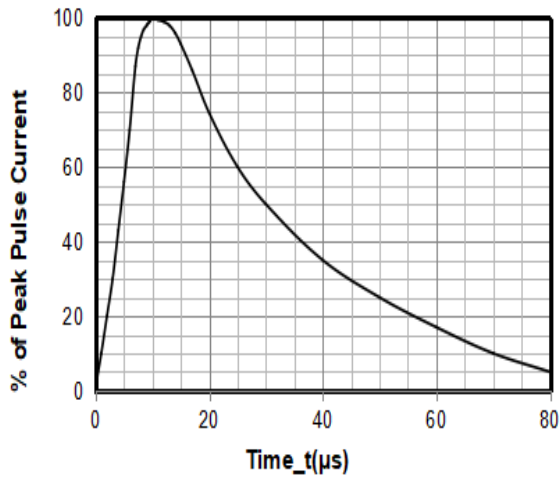
Clamping Voltage vs. Peak Pulse Current



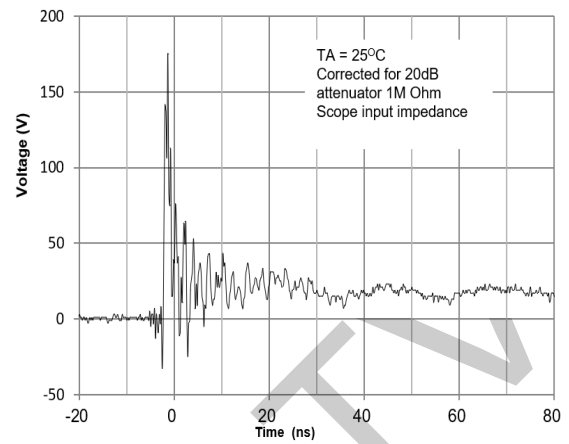
Power Derating Curve



4-Line Ultra Low Capacitance TVS Diode Array

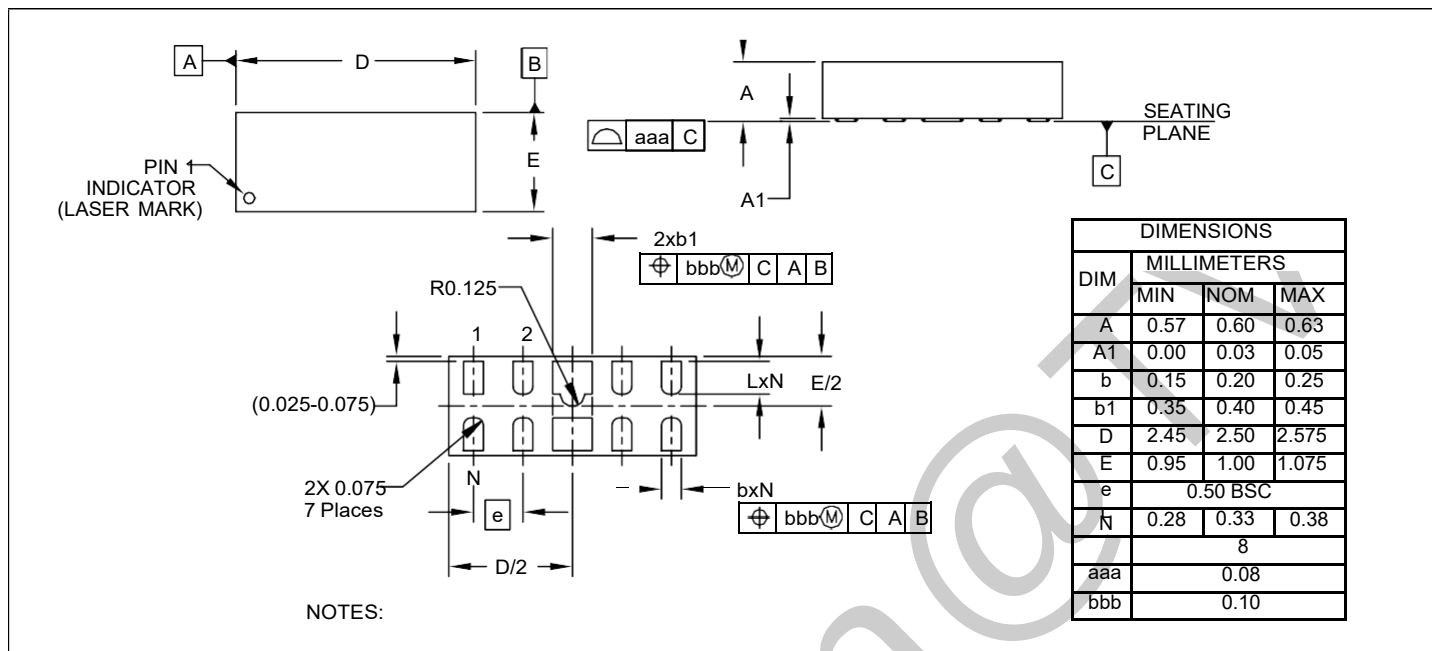


**8 X 20μs Pulse
Waveform**

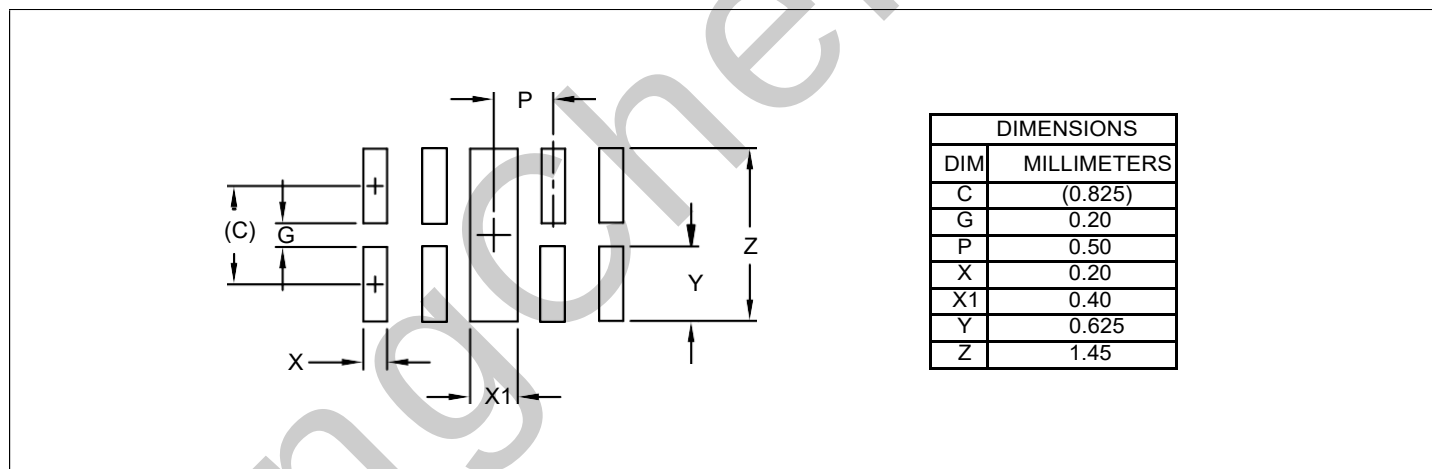


**ESD Clamping Voltage
8 kV Contact per IEC61000-4-2**

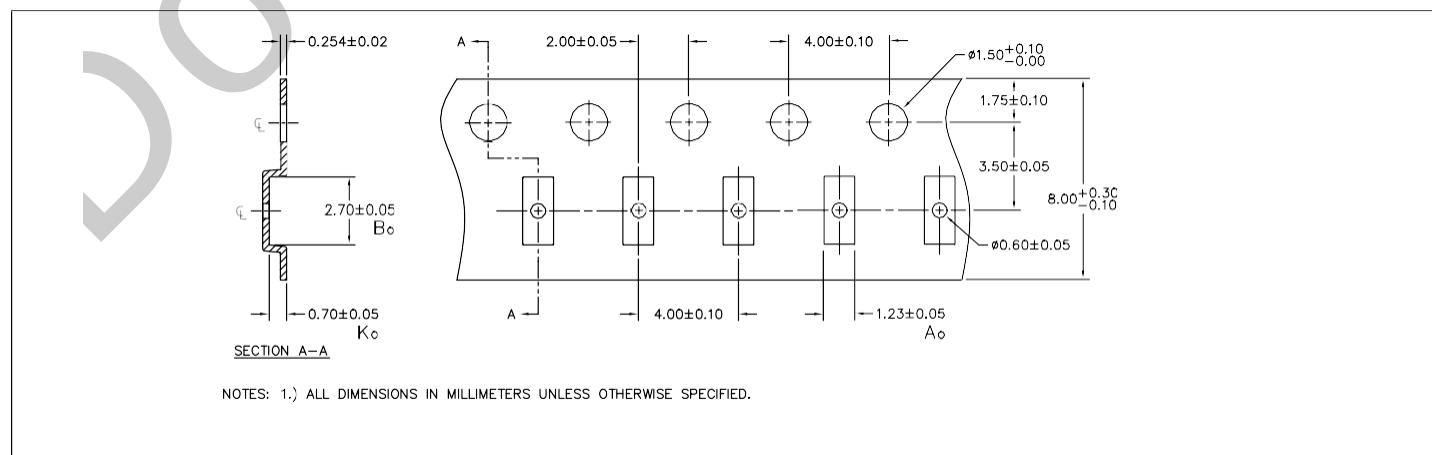
Package Dimensions



Pad Dimensions



Package Information



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