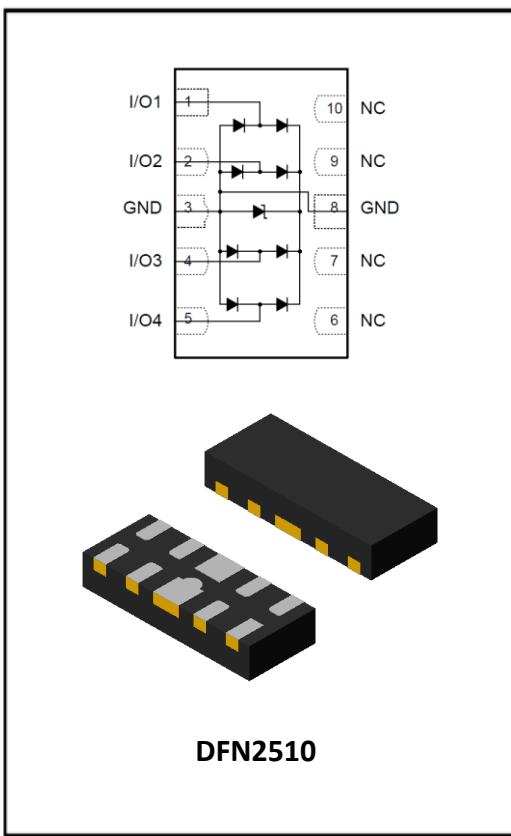


4-Line, Uni-directional, Ultra-low Capacitance, Transient Voltage Suppressor



DFN2510

Features

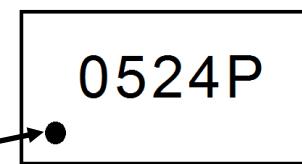
- 150W peak pulse power (8/20μs)
- Ultra low leakage
- Operating voltage: 5V
- Low clamping voltage
- Up to 4 lines protects
- RoHS Compliant

Applications

- HDMI1.3 /1.4/2.0, USB 2.0/3.0 Type C
- Monitors and flat panel displays
- Set-top box and Digital TV
- MDDI ports
- Video graphics cards
- Digital Video Interface (DVI)
- Notebook Computers
- PCI Express and Serial SATA Ports

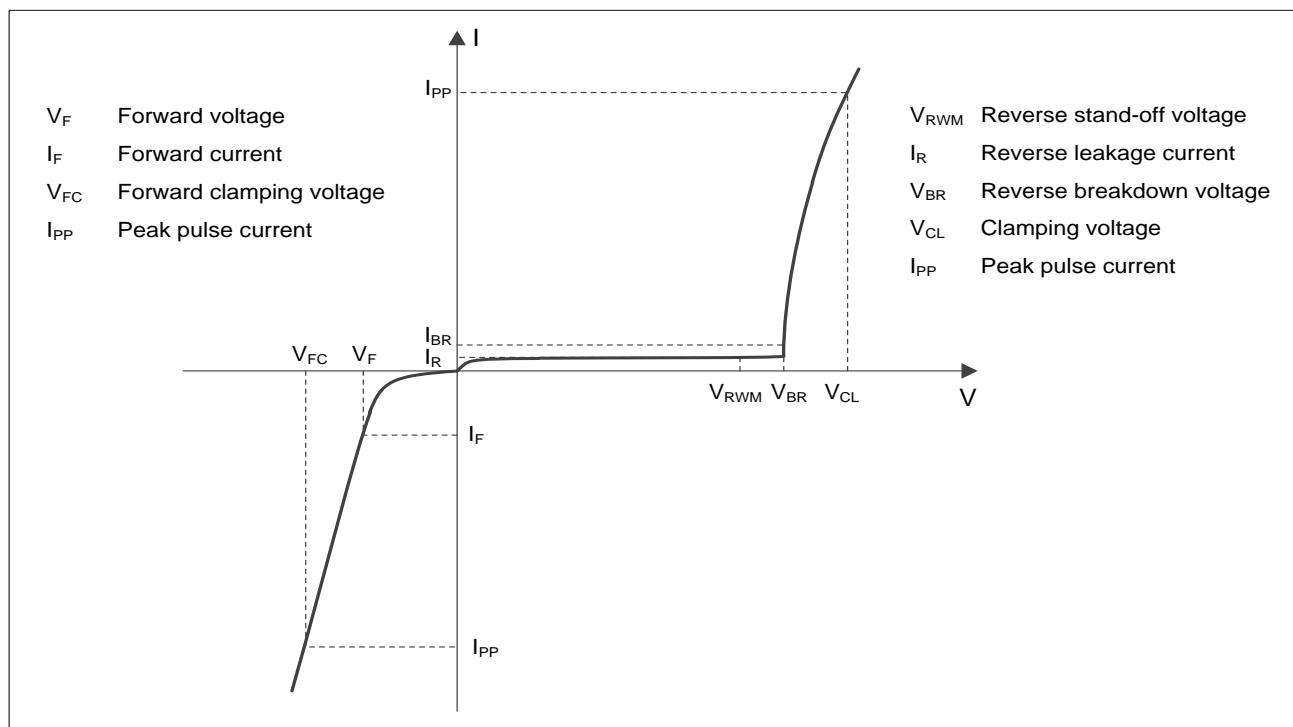
Mechanical Data

- Package: DFN2510-10 (2.5×1.0×0.5mm)
- Terminals: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- Polarity: Cathode line denotes the cathode end
- Marking:



Pin1

■Definitions of electrical characteristics



1 / 5

**■Maximum Ratings**

PARAMETER	SYMBOL	LIMITS	UNIT
Peak pulse power ($t_p = 8/20\mu s$)	P_{pk}	150	W
Peak pulse current ($t_p = 8/20\mu s$)	I_{PP}	5	A
ESD according to IEC61000-4-2 air discharge	V_{ESD}	± 15	KV
ESD according to IEC61000-4-2 contact discharge		± 8	
Junction temperature	T_J	-55~125	°C
Storage temperature	T_{STG}	-55~150	°C

■Electrical Characteristics (Ta=25°C Unless otherwise specified)

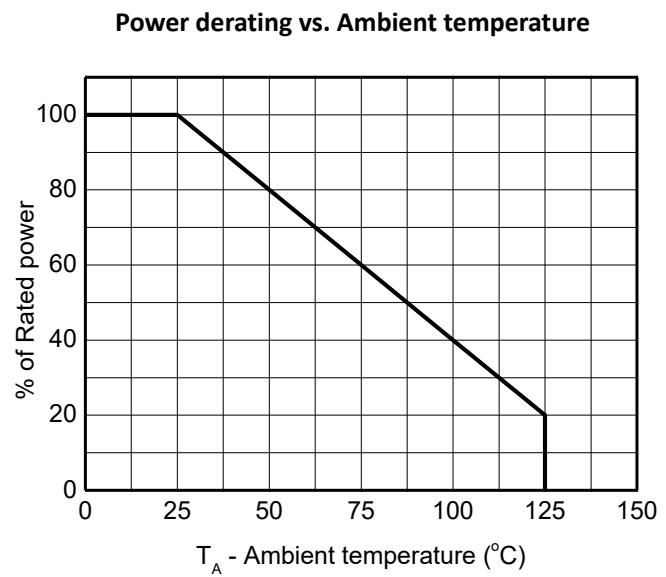
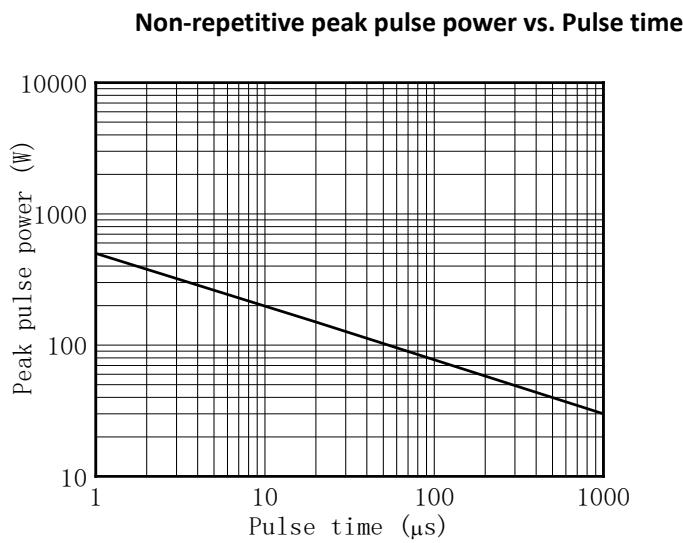
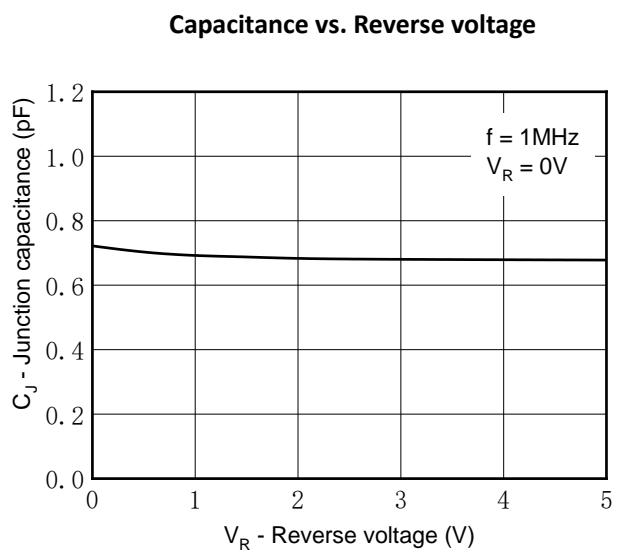
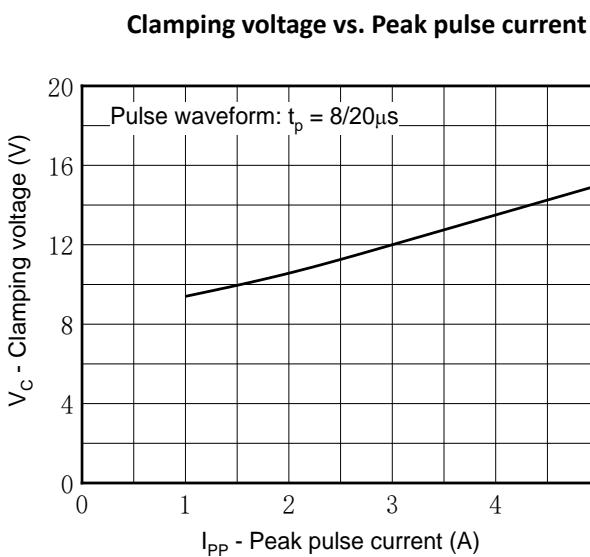
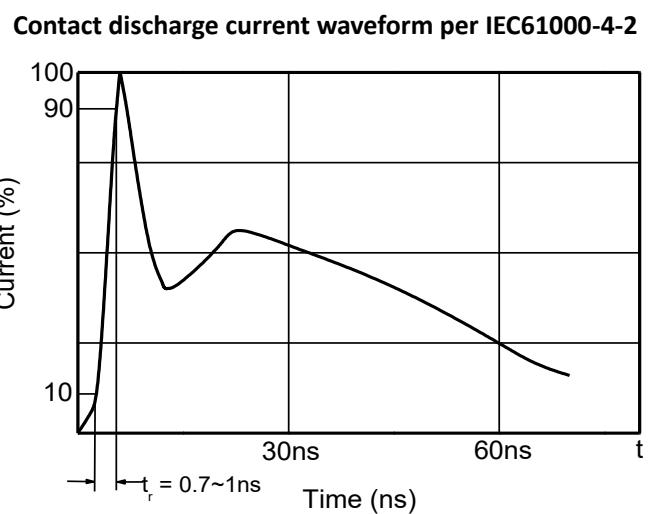
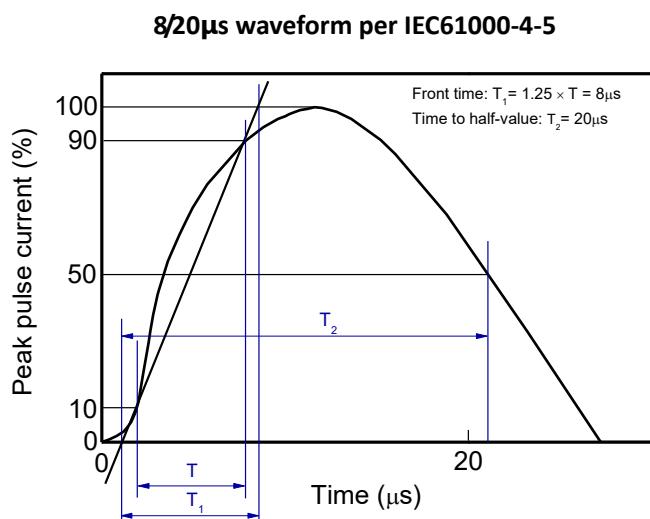
PARAMETER	Symbol	UNIT	Conditions	Min	Typ	Max
Reverse maximum working voltage	V_{RWM}	V	Any I/O pin to ground			5
Reverse leakage current	I_R	μA	$V_{RWM} = 5V$, Any I/O pin to ground			0.1
Reverse breakdown voltage	$V_{(BR)}$	V	$I_T = 1mA$, Any I/O pin to ground	6.1		8.5
Forward Voltage	VF	V	$I_F = 15mA$ GND to any I/O Pin		1.15	
Clamping voltage ¹⁾	V_{CL}	V	$I_{PP} = 1A$, $t_p = 8/20\mu s$		9.5	11
		V	$I_{PP} = 5A$, $t_p = 8/20\mu s$		15	18
Junction capacitance	CJ	pF	$V_R = 0V$, $f = 1MHz$ Any I/O pin to GND			0.8

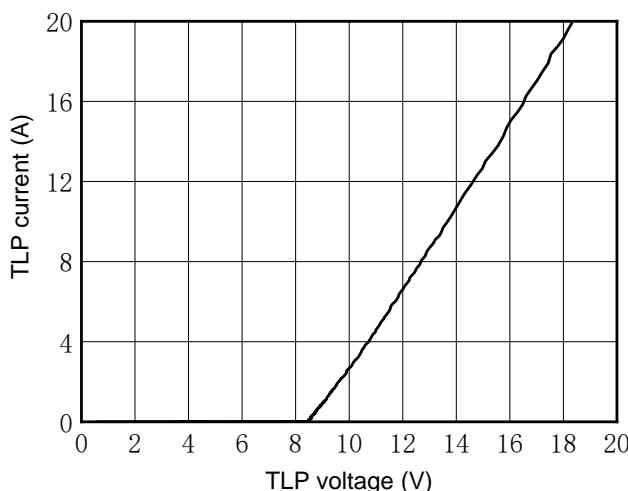
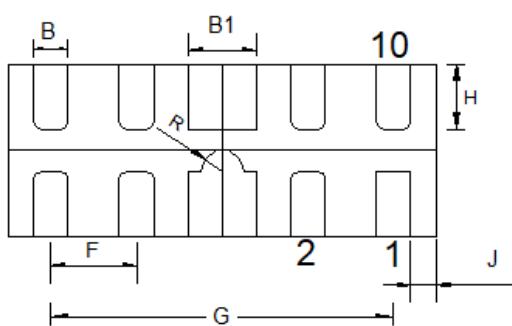
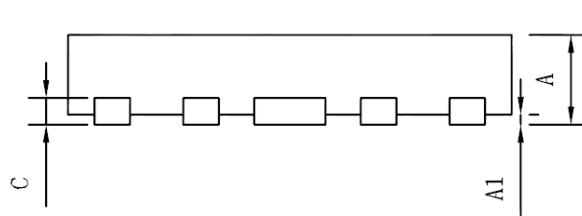
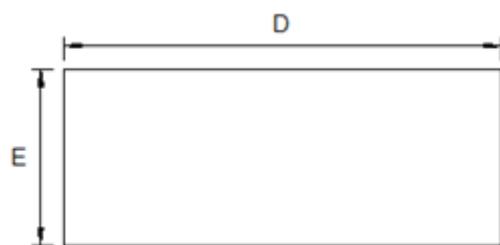
Notes:

1) Non-repetitive current pulse, according to IEC61000-4-5.

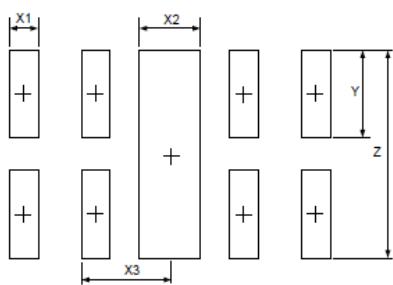
■Ordering Information (Example)

PREFERRED P/N	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
0524P	3000	30000	120000	Tape & Reel

■ Characteristics (Typical)


TLP Measurment**■ Outline Dimensions**

SYMBOL	MILLIMETER		
	MIN	NOM	MAX
A	0.40	0.45	0.50
A1	--	0.02	0.05
B	0.15	0.20	0.25
B1	0.35	0.40	0.45
C	0.10	0.15	0.20
D	2.45	2.50	2.55
E	0.95	1.00	1.05
F	0.50 BSC		
G	2.00 BSC		
H	0.30	0.38	0.46
R	0.125 BSC		
J	0.10	0.15	0.20

■ Soldering Footprint

SYM	DIMENSIONS	
	MILLIMETERS	INCHES
X1	0.200	0.008
X2	0.400	0.016
X3	0.600	0.024
Y	0.600	0.024
Z	1.400	0.056

Notes:

This recommended land pattern is for reference purposes only. Please consult your manufacturing group to ensure your PCB design guidelines are met.



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The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of which would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), Yangjie or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale.

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