

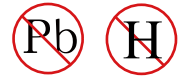


DATA SHEET

SEMICONDUCTOR

YSCLAMP0524P

Ultra Low Capacitance TVS Diode Array



APPLICATIONS

- High Definition Multi-Media Interface (HDMI)
- Digital Visual Interface (DVI)
- Unified Display Interface (UDI)
- Monitors and Flat Panel Displays
- MDDI Ports
- PCI Express
- Serial ATA

IEC COMPATIBILITY

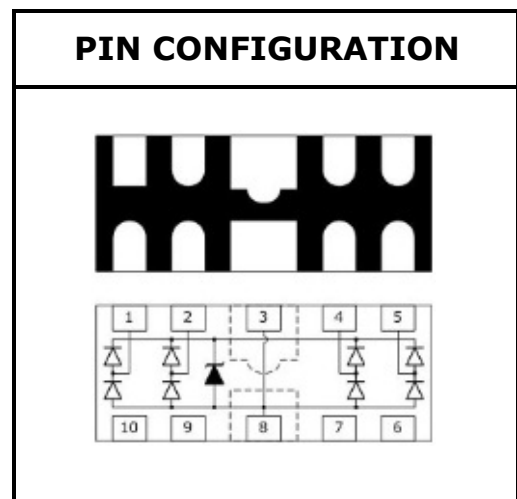
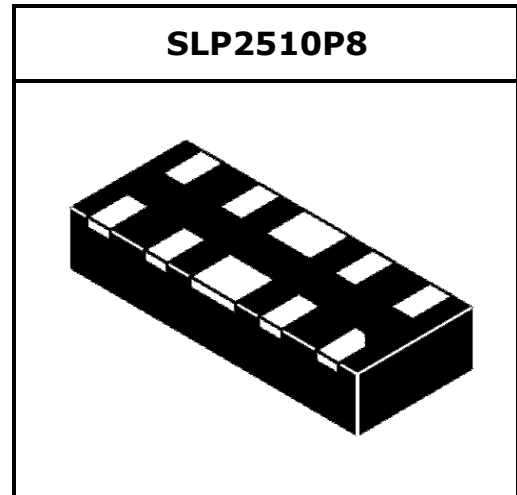
- ◆ IEC61000-4-2 (ESD) ±15kV (air), ±8kV (contact)
- ◆ IEC61000-4-4 (EFT) 40A (5/50 η s)

FEATURES

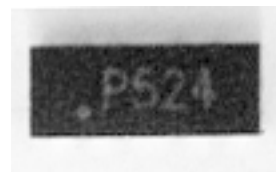
- ◆ 150 Watts Peak Pulse Power per Line (tp=8/20 μ s)
- ◆ Protects four high-speed I/O lines
- ◆ Low clamping voltage
- ◆ Working voltages : 5.0V
- ◆ Low leakage current

MECHANICAL CHARACTERISTICS

- ◆ (2.5x1.0x0.5mm) Package
- ◆ Molding Compound Flammability Rating : UL 94V-0
- ◆ Weight 2.5 Milligrams (Approximate)
- ◆ Quantity Per Reel : 3,000pcs
- ◆ Reel Size : 7 inch
- ◆ Lead Finish : Lead Free



Device	Marking
YSCLAMP0524P	P524



Marking code

DEVICE CHARACTERISTICS

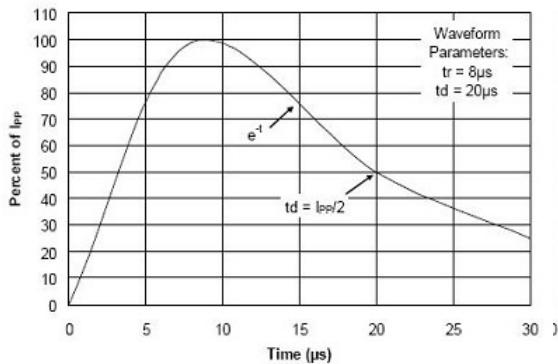
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MAXIMUM RATINGS (@ 25°C Unless Otherwise Specified)			
PARAMETER	SYMBOL	VALUE	UNITS
Peak Pulse Power (tp=8/20µs waveform)	P _{PP}	150	Watts
Lead Soldering Temperature	T _L	260 (10 sec.)	°C
Operating Temperature Range	T _J	-55 ~ 150	°C
Storage Temperature Range	T _{STG}	-55 ~ 150	°C

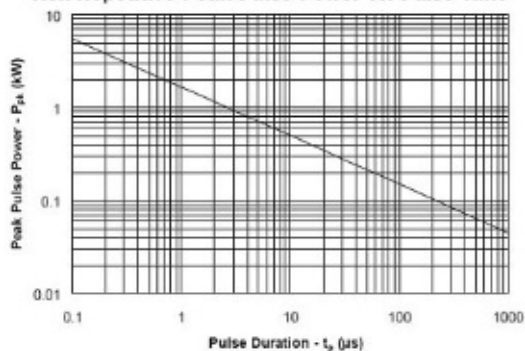
ELECTRICAL CHARACTERISTICS PER LINE (@ 25°C Unless Otherwise Specified)						
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Reverse Working Voltage	V _{RWM}	I/O Pins to GND (Note 1)			5.0	V
Breakdown Voltage	V _{BR}	I _T =1mA, I/O Pin to GND	6.0			V
Reverse Leakage Current	I _R	V _{RWM} =5V, I/O Pin to GND			1.0	µA
Clamping Voltage	V _C	I _{PP} =1A, I/O Pin to GND (8/20µs)			15	V
Junction Capacitance	C _J	V _R =0V, f=1MHz between I/Os			0.4	pF
Junction Capacitance	C _J	V _R =0V, f=1MHz between I/Os & GND			0.8	pF

Note 1 : TVS devices are normally selected according to the working peak reverse voltage (VRWM), which should be equal or greater than the DC or continuous peak operating voltage level.

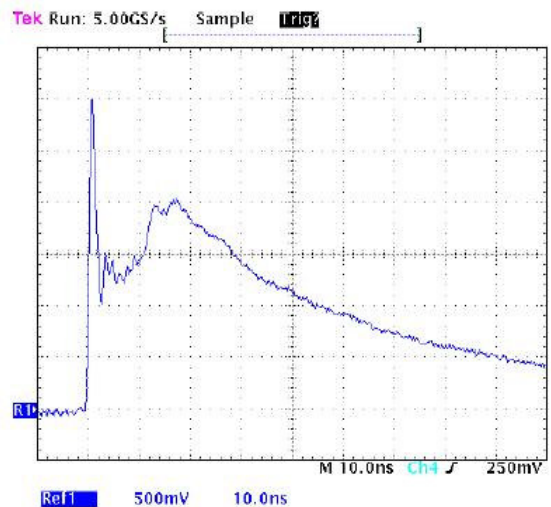
Pulse Waveform



Non-Repetitive Peak Pulse Power vs. Pulse Time

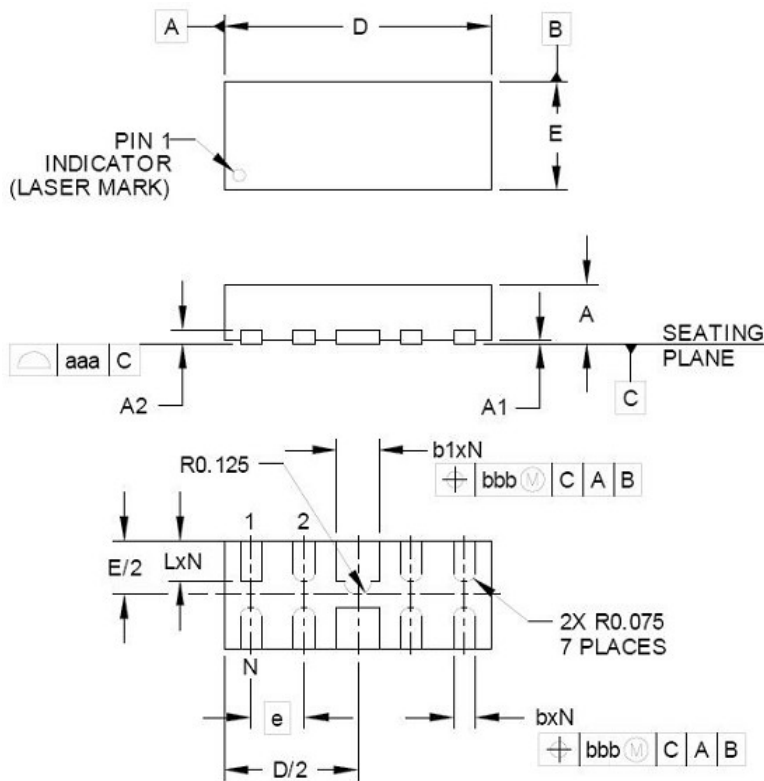


ESD Pulse Waveform (Per IEC 61000-4-2)



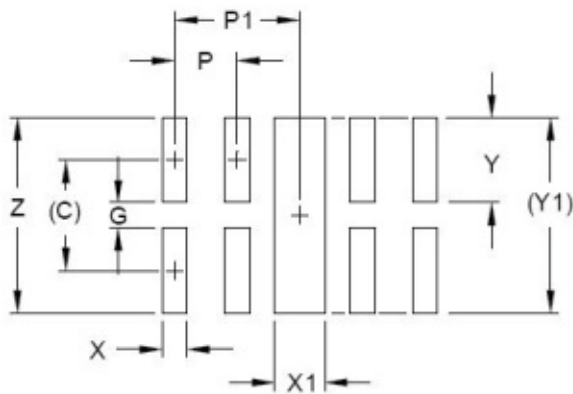
PACKAGE OUTLINE & DIMENSIONS

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DIM	INCHES			MILLIMETERS		
	MIN	NOM	MAX	MIN	NOM	MAX
A	.020	.023	.026	0.50	0.58	0.65
A1	0.00	.001	.002	0.00	0.03	0.05
A2	(.005)			(0.13)		
b	.006	.008	.010	0.15	0.20	0.25
b1	.014	.016	.018	0.35	0.40	0.45
D	.094	.098	.102	2.40	2.50	2.60
E	.035	.039	.043	0.90	1.00	1.10
e	.020 BSC			0.50 BSC		
L	.012	.015	.017	0.30	0.38	0.425
N	10			10		
aaa	.003			0.08		
bbb	.004			0.10		

* SOLDERING FOOTPRINT



DIM	DIMENSIONS	
	INCHES	MILLIMETERS
C	(.034)	(0.875)
G	.008	0.20
P	.020	0.50
P1	.039	1.00
X	.008	0.20
X1	.016	0.40
Y	.027	0.675
Y1	(.061)	(1.55)
Z	.061	1.55