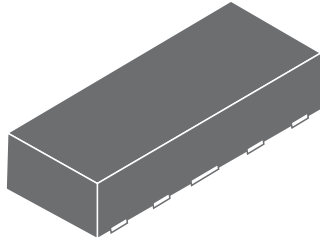
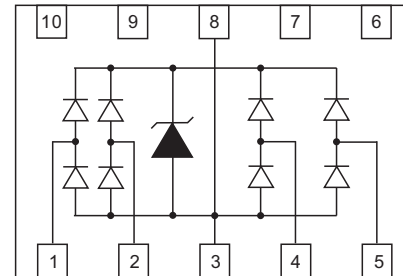


Electro-Static Discharge TUSD05L4U Low Capacitance TVS Diode

DFN2510-10L



Pin Configuration



Features

- 150 Watts Peak Pulse Power per Line ($t_p=8/20\mu s$)
- Protects two or four I/O lines
- Low capacitance: 0.3pF typical (I/O to I/O)
- Low operating voltage: 5V
- RoHS Compliant

IEC Compatibility

- IEC61000-4-2 (ESD) $\pm 15kV$ (air), $\pm 8kV$ (contact)
- IEC61000-4-4 (EFT) 40A (5/50ns)
- IEC61000-4-5 (Lightning) 5A (8/20 μs)

Applications

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

Mechanical Characteristics

- JEDEC DFN2510-10L Package
- Molding Compound Flammability Rating : UL 94V-O
- Weight 15 Milligrams (Approximate)
- Quantity Per Reel : 3,000pcs
- Reel Size : 7 inch
- Lead Finish : Lead Free

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

Parameter	Symbol	Value	Units
Peak Pulse Power($t_p=8/20\mu\text{s}$)	P_{PP}	150	Watts
Lead Soldering Temperature	T_L	260(10 sec.)	$^{\circ}\text{C}$
Operating Temperature Range	T_J	-55~150	$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	-55~150	$^{\circ}\text{C}$

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

TUSD05L4U(Marking:0524F)

Parameter	Symbol	Conditions	Min.	Max.	Units
Reverse Stand-off Voltage	V_{RWM}			5	V
Breakdown Voltage	V_{BR}	$I_T=1\text{mA}$	6		V
Clamping Voltage	V_C	$I_{PP}=1\text{A}, t_p=8/20\mu\text{s}$		15	V
		$I_{PP}=5\text{A}, t_p=8/20\mu\text{s}$		25	V
Reverse Leakage Current	I_R	@ V_{RWM}		1	μA
Junction Capacitance	$C_{I/O}$	0Vdc, $f=1\text{MHz}$ Between I/O Pins and GND		0.8	pF

Ratings and Characteristic Curves

Fig.1 Non-repetitive Peak Pulse Power V.S Pulse Time

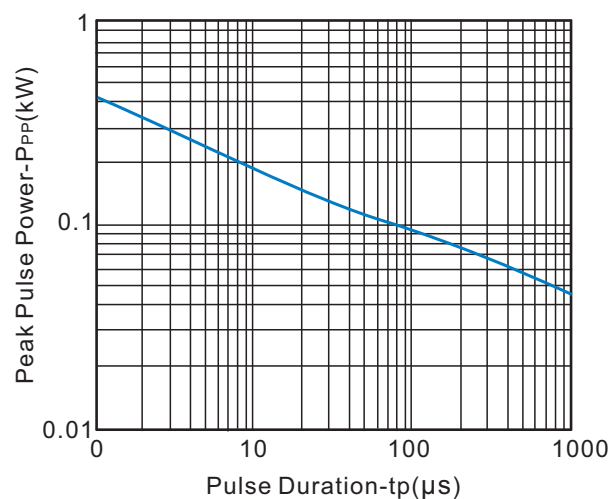
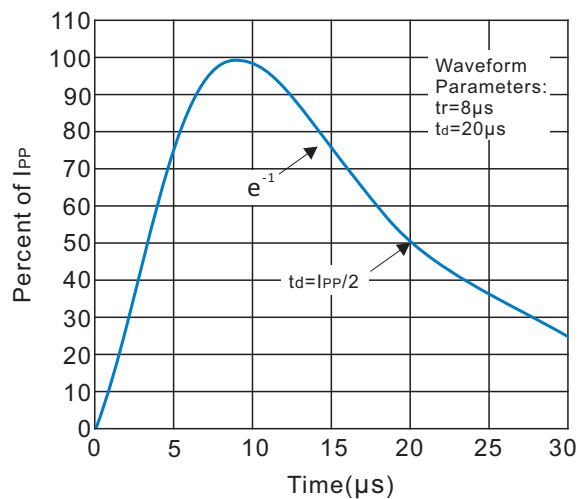
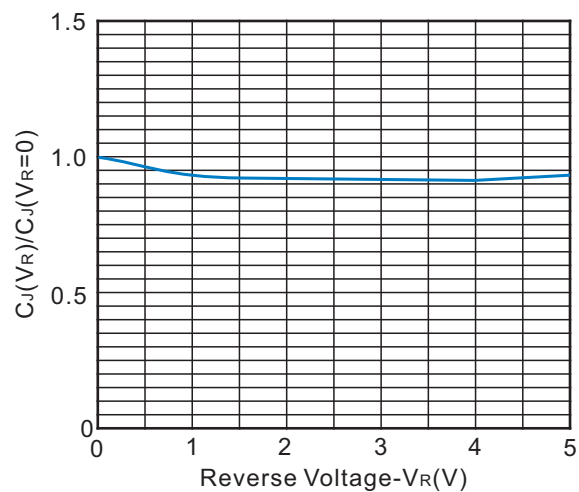


Fig.2 Pulse Waveform



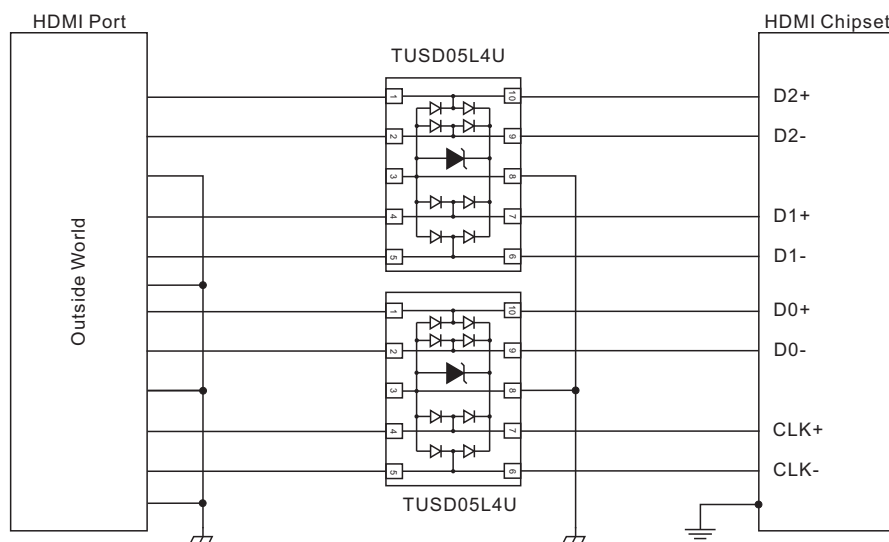
Ratings and Characteristic Curves

Fig.3 Normalized Capacitance vs. Reverse Voltage

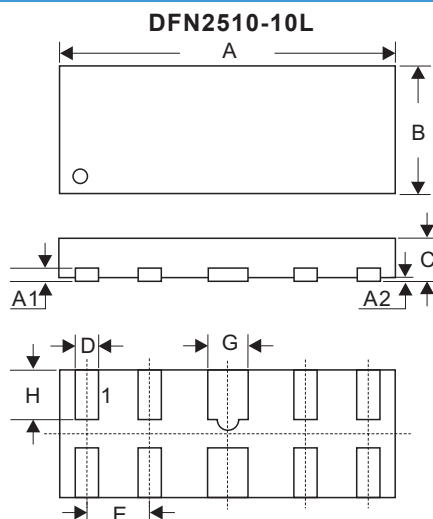


Application

HDMI Protection

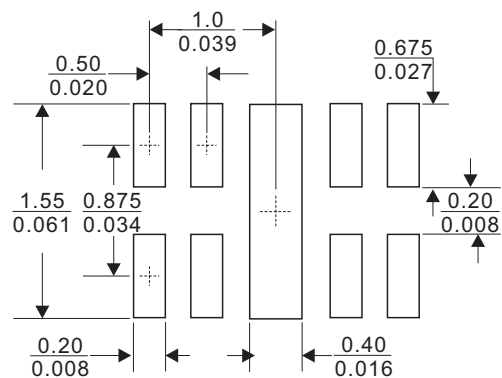


Dimensions(DFN2510-10L)



DIM	Millimeters		Inches	
	Min	Max	Min	Max
A	2.4	2.6	0.094	0.102
A1	0.13 BSC		0.005 BSC	
A2	0.00	0.05	0.00	0.002
B	0.90	1.10	0.035	0.043
C	0.40	0.65	0.015	0.026
D	0.15	0.25	0.006	0.010
E	0.50 BSC		0.020 BSC	
G	0.35	0.45	0.014	0.018
H	0.30	0.425	0.012	0.017

Recommended Mounting Pad Layout



Dimensions in (millimeters)
inches