APPLICATIONS

►USB2.0,USB3.0,Ethernet
►HDMI2.0,Displayport 1.3,eSATA
►Unified Display Interface
►Digital Visual Interface
►High Speed Serial Interface

IECCOMPATIBILITY

►IEC61000-4-2 (ESD) ±20kV (air), ±15 kV (contact)
►IEC61000-4-4 (EFT) 40A (5/50ns)
►IEC61000-4-5 (Lightning) 4.0A(8/20μs)

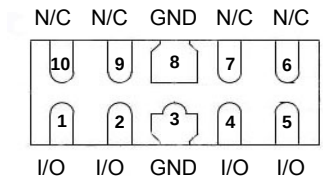
FEATURES

►48.0 Watts Peak Pulse Power per Line (tp=8/20μs)
►Protects Four I/O lines
►Operating Voltage: 3.3V
►Ultra Low Capacitance: 0.5pF typical (I/O to GND)
►Weight: 8.0mg

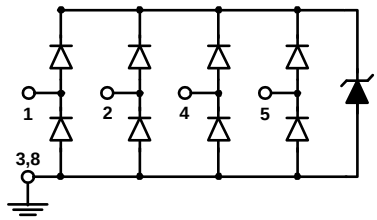
MECHANICALCHARACTERISTICS

►DFN2510P10 PACKAGE INFORMATION
►Quantity Per Reel : 3,000pcs
►Reel Size : 7 inch
►Lead Finish : Lead Free

DFN-2510



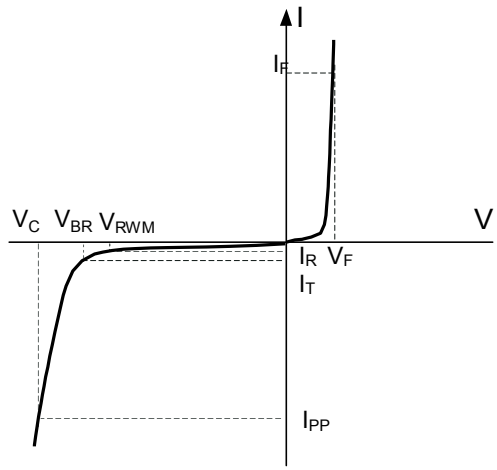
PIN CONFIGURATION



Absolute maximum rating@25℃			
Rating	Symbol	Value	Unit
Peak Pulse Power (tP = 8/20μS)	Ppp	48.0	W
Lead Solder Temperature −Maximum (10 Seconds)	TL	260	°C
Operating Junction Temperature Range	TJ	−55 to +125	°C
Storage Temperature Range	Tstg	−55 to +150	°C

ELECTRICAL CHARACTERISTICS
(T_A = 25°C unless otherwise noted)

Symbol	Parameter
V_{RWM}	Peak Reverse Working Voltage
I_R	Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current
I_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
P_{PP}	Peak Pulse Power
C_J	Junction Capacitance
I_F	Forward Current
V_F	Forward Voltage @ I_F

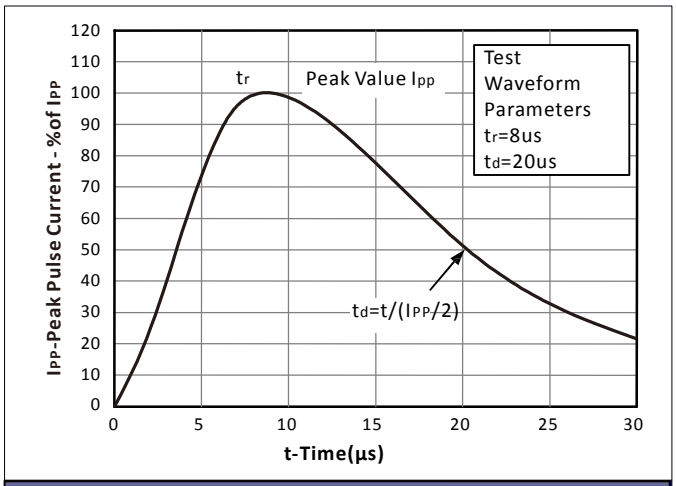


Uni −Directional TVS

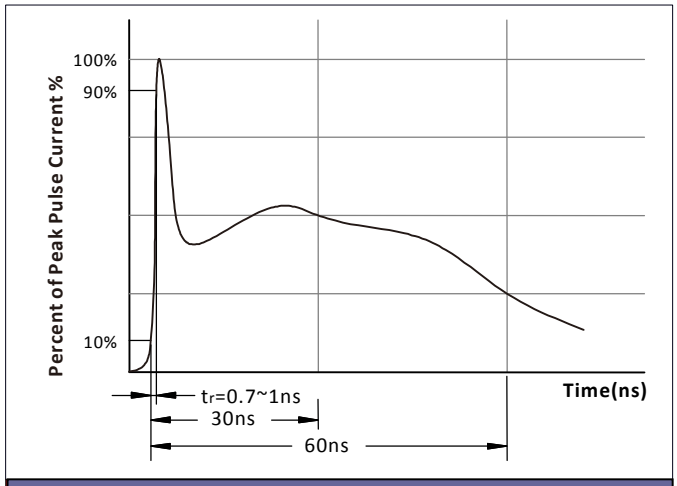
ELECTRICAL CHARACTERISTICS PER LINE (@ 25℃ Unless Otherwise Specified)

PART NUMBER	DEVICE MARKING	VRWM (V) (max.)	VB (V) (min.)	IT (mA)	VC (8/20us) (max@v)	(@A)	IR (μA) (max.)	Cj I/O-I/O(pF) (Typical.)	(max.)	Cj I/O-GND (pF) (Typical.)	(max.)
ESD0324VA	05U	3.3	4.0	1.0	12.0	4.0	0.5	0.25	0.3	0.5	0.55

CHARACTERISTIC CURVES

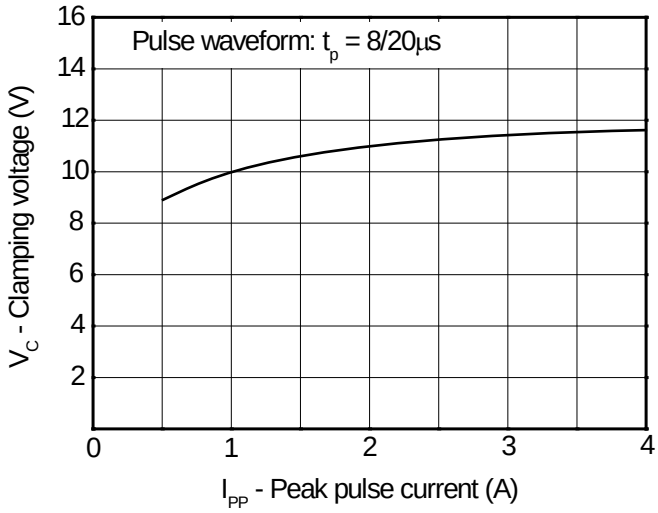


8/20μs Pulse Waveform

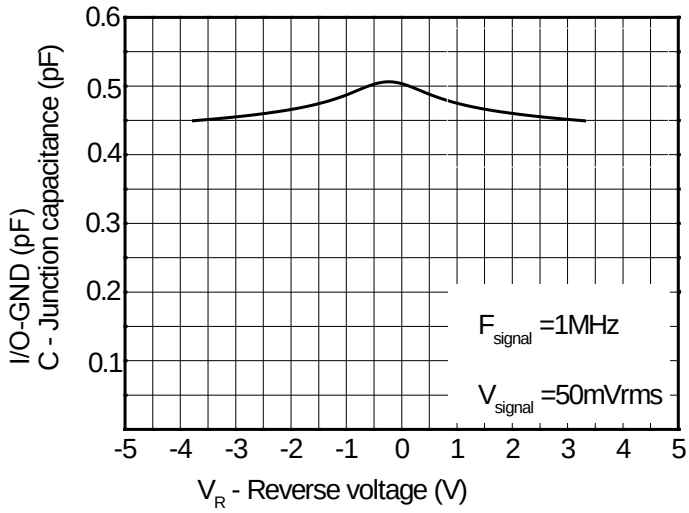


ESD Pulse Waveform (according to IEC 61000-4-2)

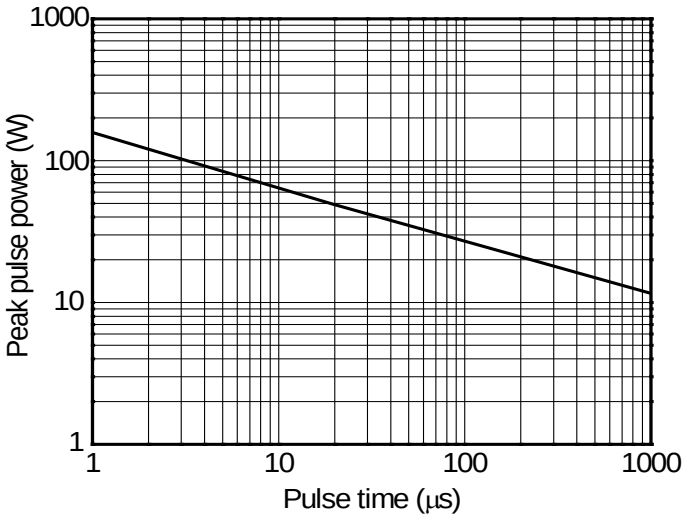
Typical characteristics (T_A=25°C, unless otherwise noted)



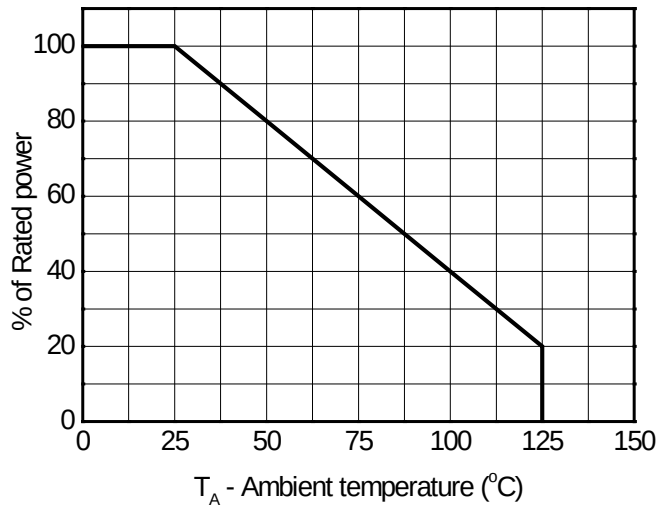
Clamping voltage vs. Peak pulse current



Capacitance vs. Reveres voltage

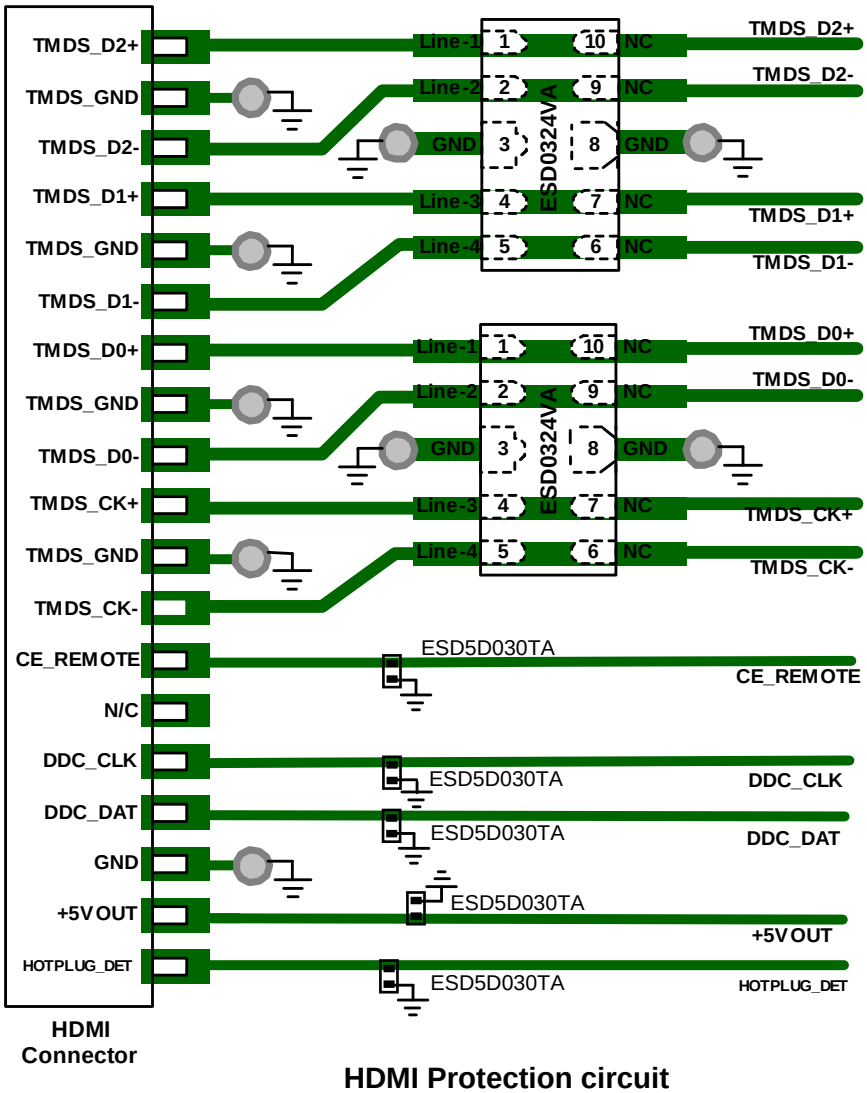


Non-repetitive peak pulse power vs. Pulse time

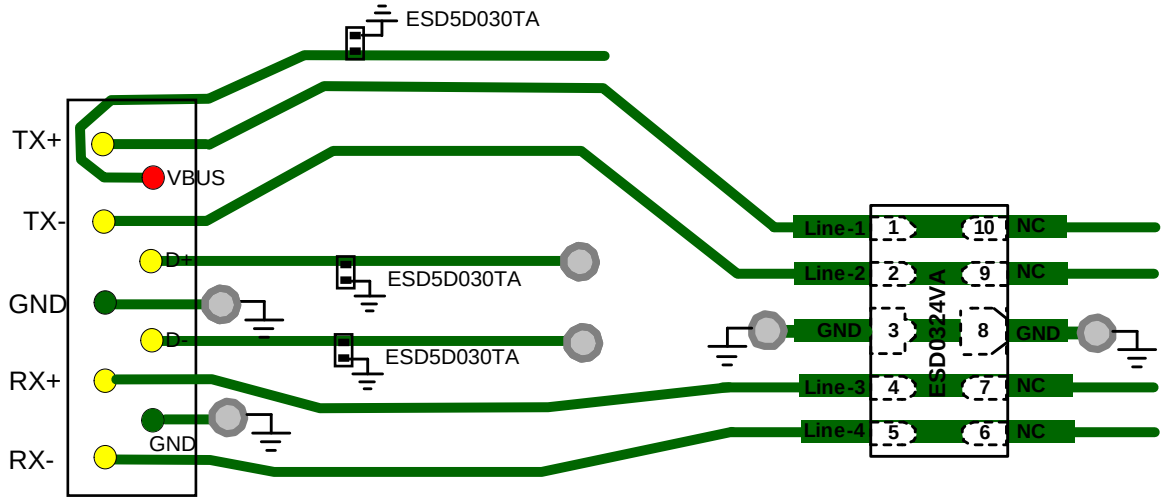


Power derating vs. Ambient temperature

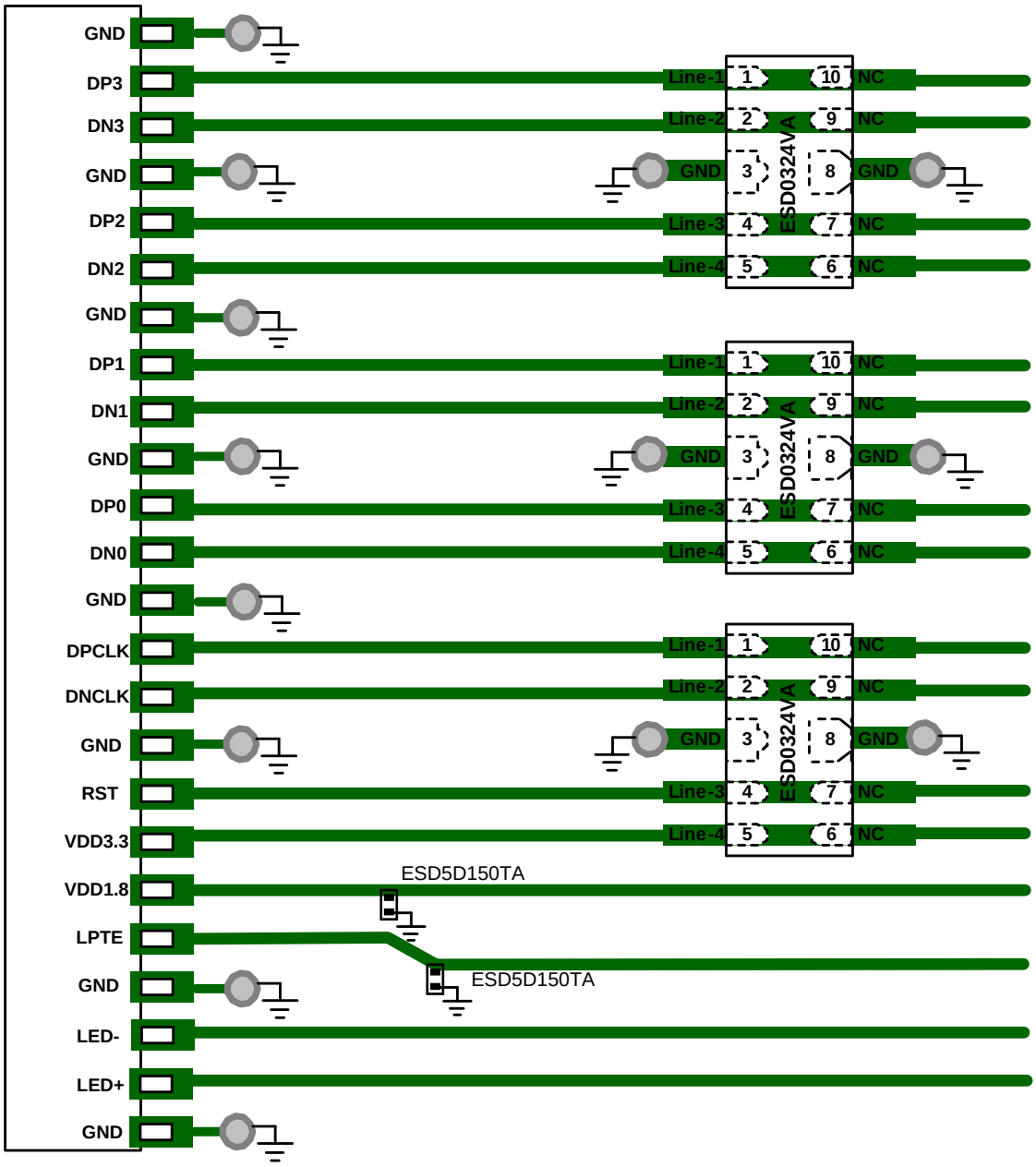
APPLICATION INFORMATION



HDMI Protection circuit

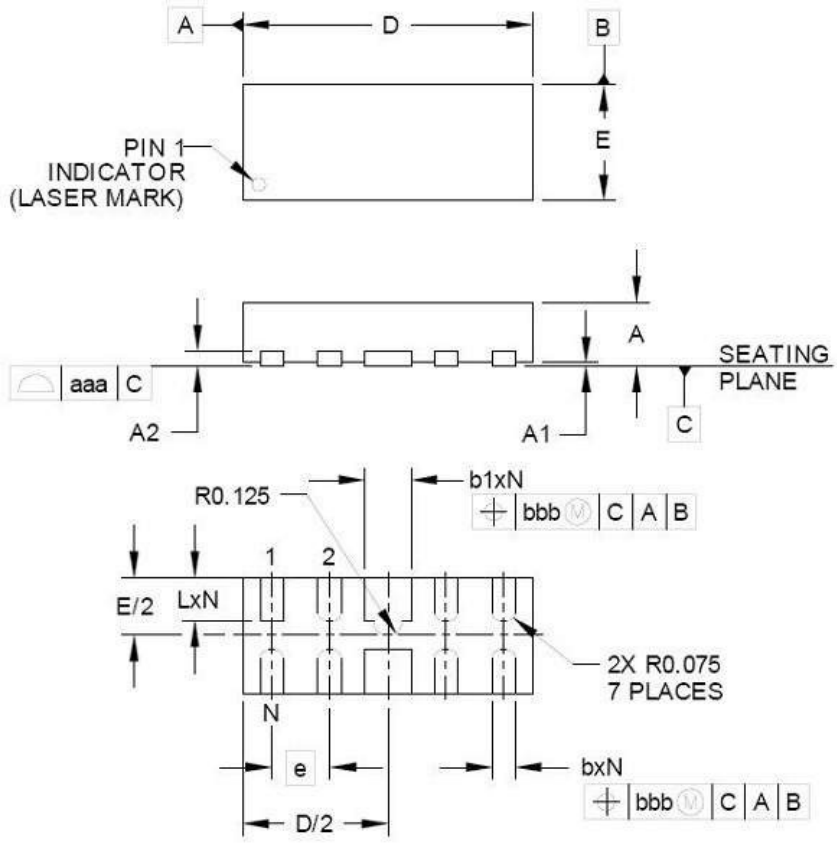


USB3.0 Protection circuit



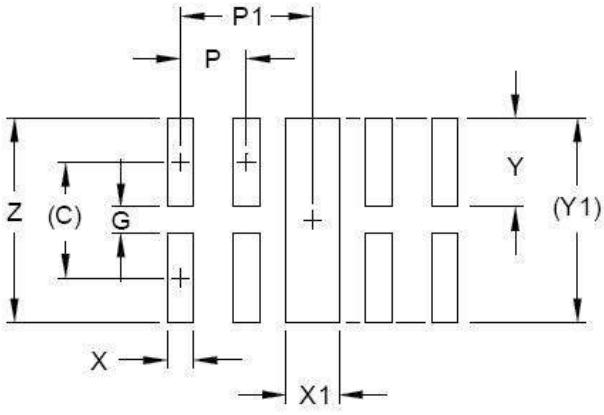
MIPI Protection circuit

DFN2510PACKAGEOUTLINE&DIMENSIONS



DIMENSIONS						
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	

*SOLDERINGFOOTPRINT



DIMENSIONS		
DIM	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