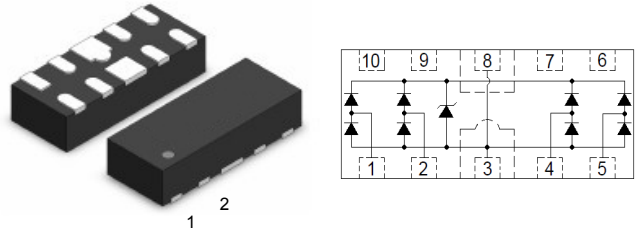


## Ultra Low Capacitance ESD TVS Array in DFN2510

### Features

- 30Watts peak pulse power ( $T_P = 8/20\mu s$ )
- DFN2510 Package
- Unidirectional configurations
- Solid-state silicon-avalanche technology
- Low clamping voltage
- Low leakage current
- Low capacitance (0.2pF typical I/O to I/O)
- ESD Protection for high-speed data lines to:
  - IEC 61000-4-2  $\pm 8KV$  contact  $\pm 15KV$  air
  - IEC 61000-4-4 (EFT) 40A (5/50ns)
  - IEC 61000-4-5 (Lightning) 3A (8/20 $\mu s$ )



### Mechanical Data

- **Case:** DFN2510 (plastic package).  
Lead free; RoHS compliant; Halogen-free
- **Molding Compound Flammability Rating:**  
UL 94 V-0
- **Terminals:** High temperature soldering guaranteed:  
260 °C/10 sec. at terminals

### Applications

- USB 3.0, USB 2.0, MHL
- HDMI 2.0, Display Port 1.3, eSATA
- Unified Display Interface (UDI)
- Digital Visual Interface (DVI)
- High speed serial interfaces

### Absolute Maximum Ratings

Ratings at 25 °C, ambient temperature unless otherwise specified

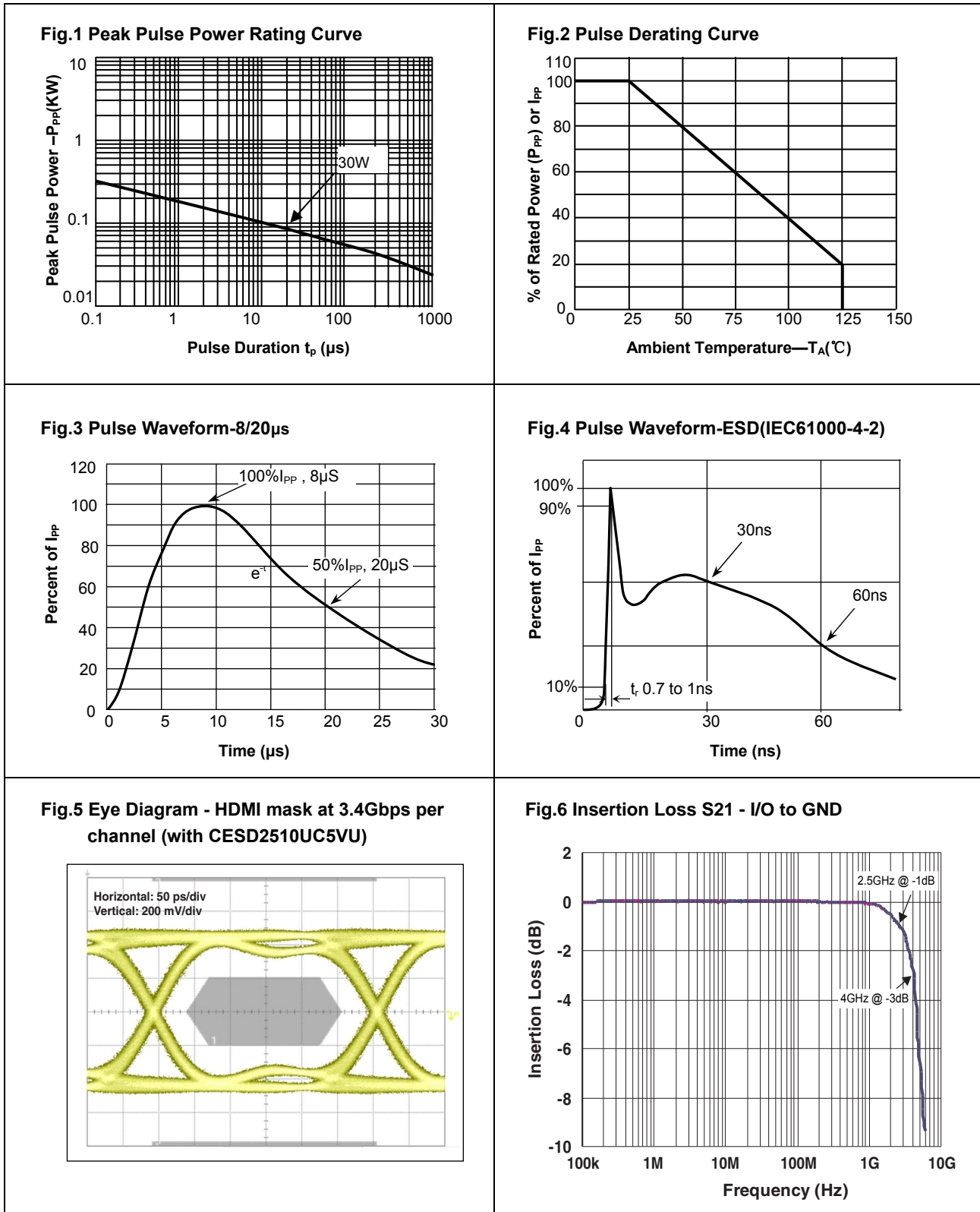
Parameter	Symbol	Value	Unit
Peak Pulse Power ( $T_P=8/20\mu s$ )	$P_{PP}$	30	W
ESD contact/air discharge (IEC-61000-4-2)	$V_{ESD}$	8/15	kV
Peak Pulse Current ( $T_P = 8/20\mu s$ )	$I_{PP}$	3.0	A
Junction Temperature	$T_J$	-55 to +125	°C
Storage temperature	$T_{STG}$	-55 to +150	°C

### Electrical Characteristics

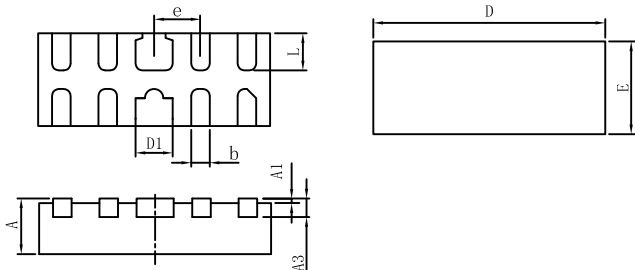
( $T_A = 25\text{ °C}$  unless otherwise specified)

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Reverse stand-off Voltage	$V_{RWM}$				5	V
Reverse Breakdown Voltage	$V_{BR}$	$I_T=1mA$	6	7.2		V
Reverse Leakage Current	$I_R$	$V_R=5V$			0.5	$\mu A$
Clamping Voltage(SURGE)	$V_C$	$I_{PP}=3A, T_P=8/20\mu s$		10		V
Clamping Voltage(TLP)	$V_C$	$I_{PP}=16A, T_P=100ns$		9.5		V
Dynamic Resistance	$R_{dyn}$			0.25		$\Omega$
Junction Capacitance	$C_J$	$V_R=0V, f=1MHz, I/O$ to I/O		0.20		pF
	$C_J$	$V_R=0V, f=1MHz, I/O$ to GND		0.40		pF

**Typical Characteristics** ( $T_{amb} = 25\text{ }^{\circ}\text{C}$  unless otherwise specified)

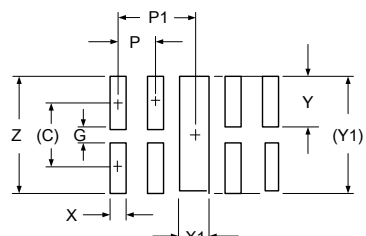


## Package Dimensions



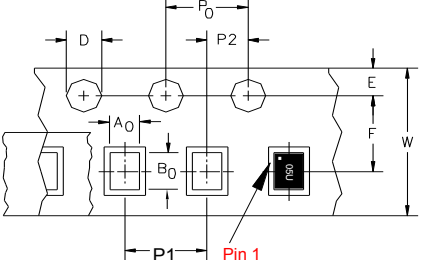
Symbol	Dimensions in millimeters		
	Min	Nom	Max
A	0.45	0.50	0.55
A1		0.02	0.05
A3	0.10	0.15	0.20
D	2.45	2.50	2.55
E	0.95	1.00	1.05
D1	0.35	0.40	0.45
b	0.15	0.20	0.25
e	0.50BS		
L	0.35	0.40	0.45

## Pad Dimensions



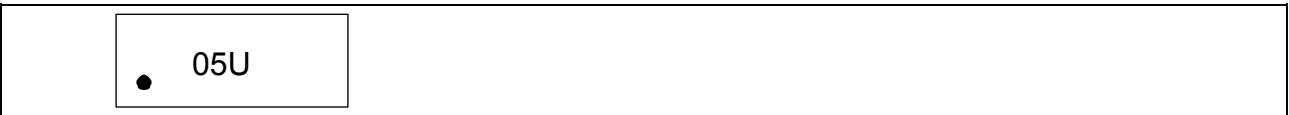
Symbol	Dimension	
	Inches	millimeters
C	.034	0.875
G	.008	0.20
P	.020	0.50
P1	.039	1.00
X	.010	0.25
X1	.018	0.45
Y	.027	0.675
Y1	.061	1.55
Z	.061	1.55

## Package Information



Symbol	Typical	Unit
A0	1.15	mm
B0	2.65	
D	1.55	
P0	4.00	
P1	4.00	
P2	2.00	
E	1.75	
F	3.50	
W	8.00	

## Marking



## Ordering information

Order code	Package	Packaging option	Base quantity	Packaging specification
CESD2510UC5VU	DFN2510	Tape and reel	3000pcs / reel	EIA STD RS-481

## Revision history

Date	Revision	Changes
5-Jul.-2021	3.0	Update

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