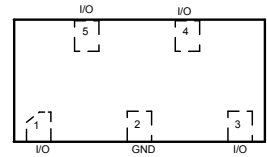
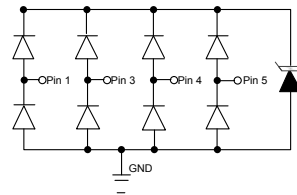
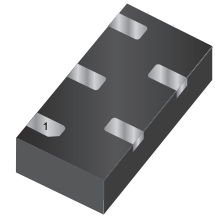


## Ultra Low Capacitance ESD/TVS Array in DFN2010

### Features

- 30Watts peak pulse power ( $t_p = 8/20\mu s$ )
- DFN 2010 Package
- Protect up to 4-lines
- Solid-state silicon-avalanche technology
- Low clamping voltage
- Low leakage current
- Low capacitance (0.15pF 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:** DFN2010 (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 3.0/3.1, Type C
- HDMI 1.4/2.0, Display Port 1.3
- Unified Display interface
- Digital visual interface
- Microcontroller Input Protection

### Absolute Maximum Ratings

Ratings at 25 °C, ambient temperature unless otherwise specified

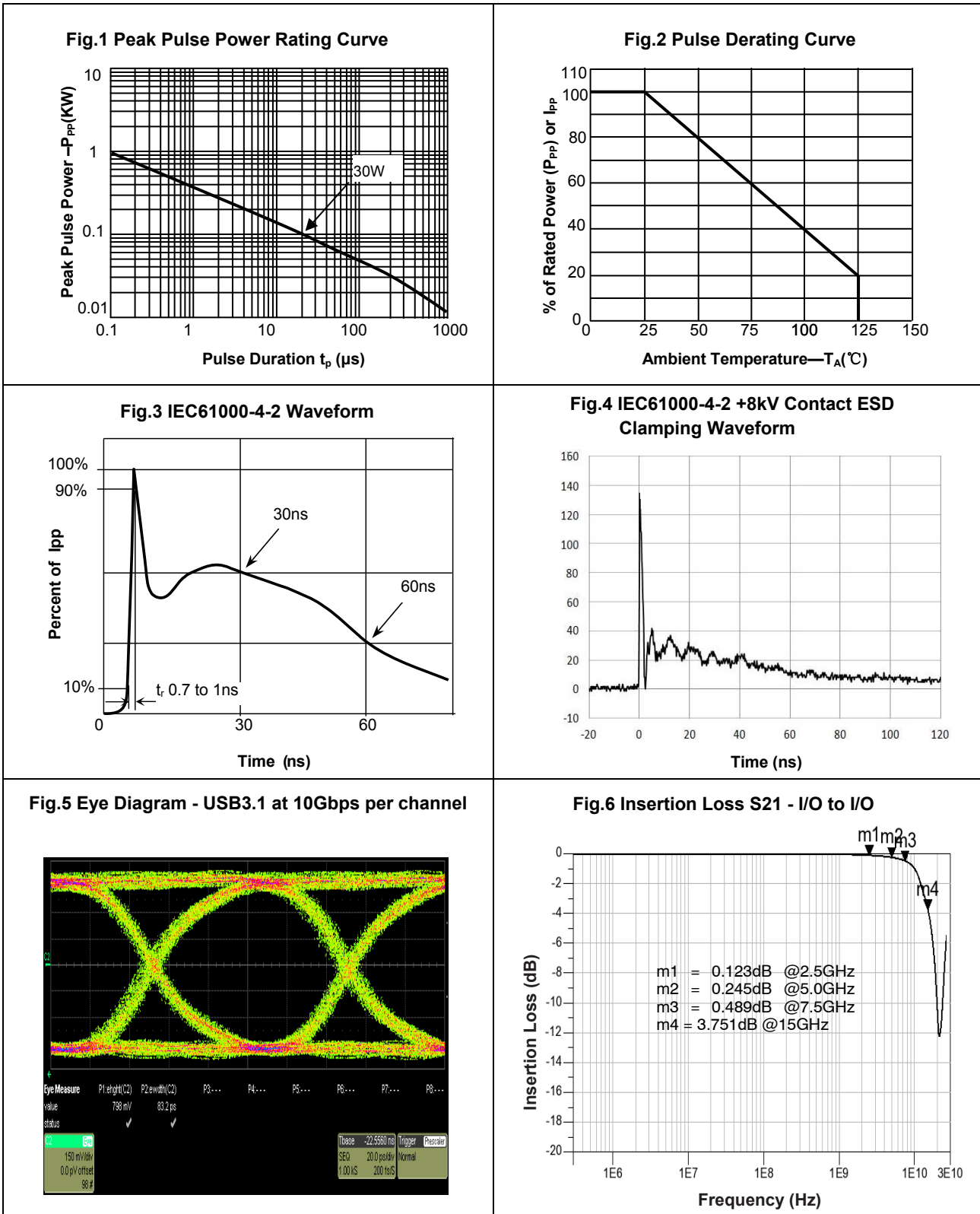
Parameter	Symbol	Value	Unit
Peak Pulse Power ( $T_P=8/20\mu S$ )	$P_{PP}$	30	W
ESD contact/air discharge (IEC-61000-4-2)	$V_{ESD}$	8/15	kV
Peak Pulse Current ( $t_p = 8/20\mu S$ )	$I_{PP}$	3	A
Junction Temperature	$T_J$	-55 to +125	°C
Storage temperature	$T_{STG}$	-55 to +150	°C

### Electrical Characteristics

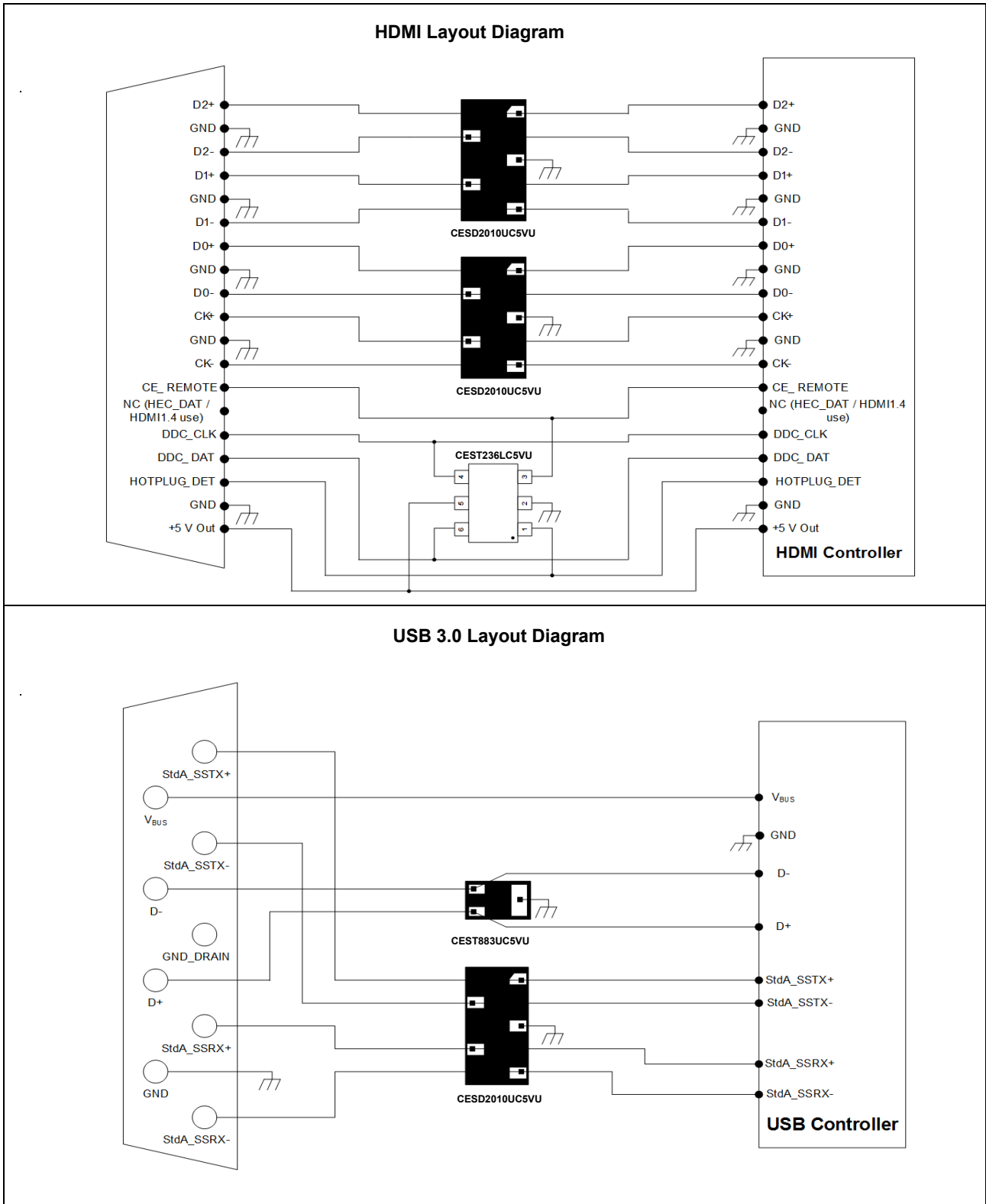
( $T_A = 25\text{ °C}$  unless otherwise specified)

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	9.5	V
Reverse Leakage Current	$I_R$	$V_R=5V$		0.1	0.5	uA
Clamping Voltage(SURGE)	$V_C$	$I_{PP}=3A, T_P=8/20\mu S$			10	V
Junction Capacitance	$C_J$	$V_R=0V, f=1MHz, I/O$ to I/O		0.15		pF
	$C_J$	$V_R=0V, f=1MHz, I/O$ to GND		0.2		pF

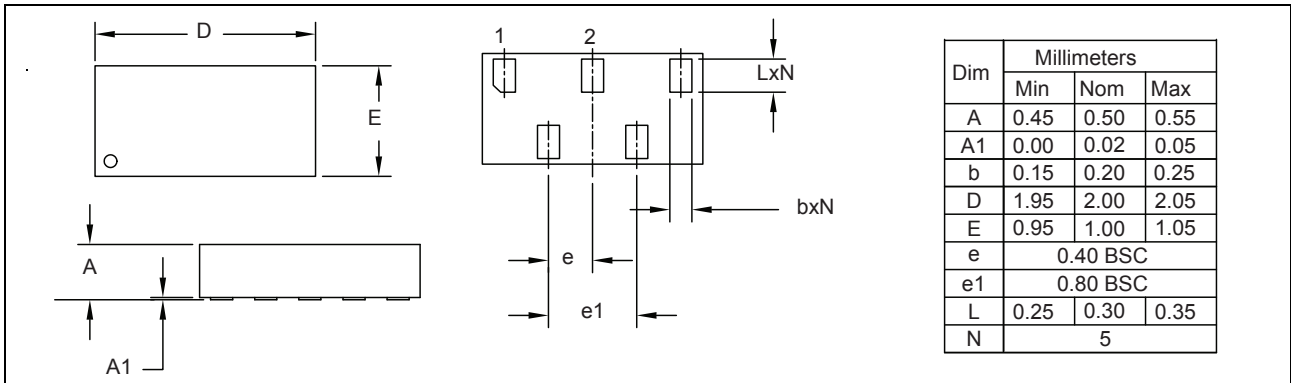
**Typical Characteristics** ( $T_{amb} = 25\text{ }^{\circ}\text{C}$  unless otherwise specified)



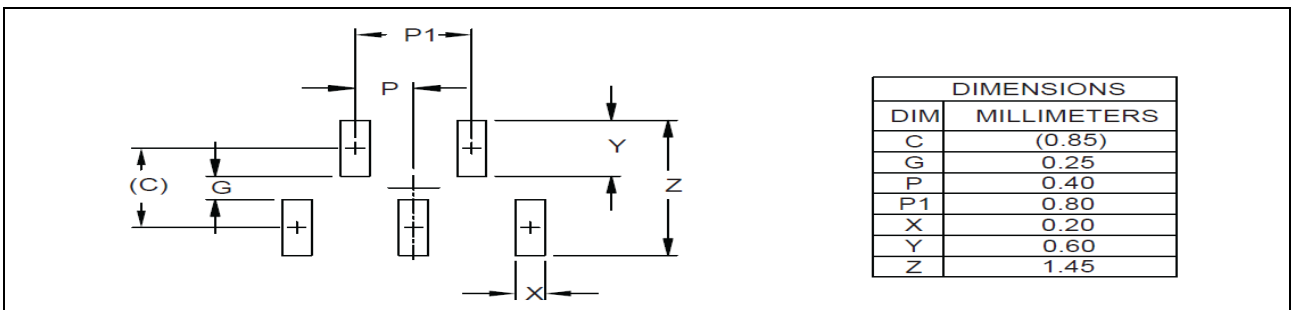
**Layout Diagrams**



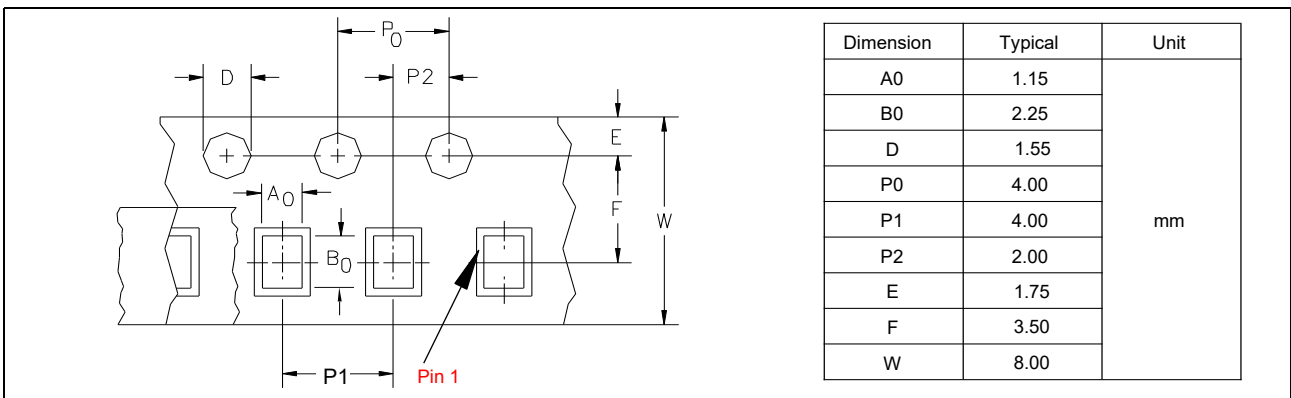
## Package Dimensions



## PAD Dimensions



## Package Information



## Ordering information

Order code	Marking	Package	Packaging option	Base quantity	Packaging specification
CESD2010UC5VU	M534	DFN2010	Tape and reel	3000pcs / reel	EIA STD RS-481

## Revision history

Date	Revision	Changes
23-May-2012	1.0	Initial release
20-July-2018	2.0	Update

## **CAUTION / WARNING**

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