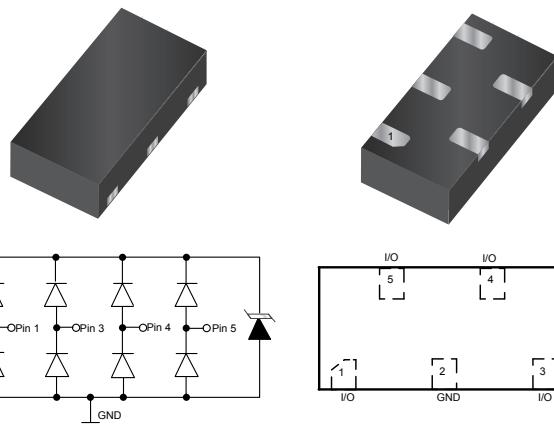


## Features

- 30Watts peak pulse power ( $T_p = 8/20\mu s$ )
- DFN1308-5 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 ±12KV contact ±15KV air  
IEC 61000-4-4 (EFT) 40A (5/50ns)  
IEC 61000-4-5 (Lightning) 3A (8/20μs)



## Mechanical Data

- **Case:** DFN1308-5 (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

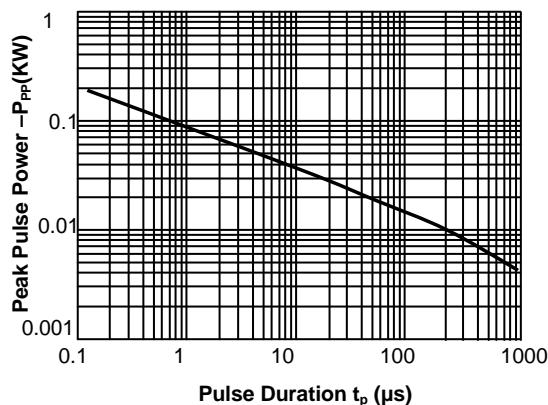
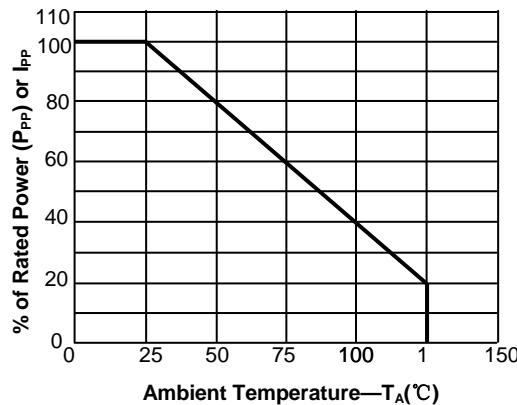
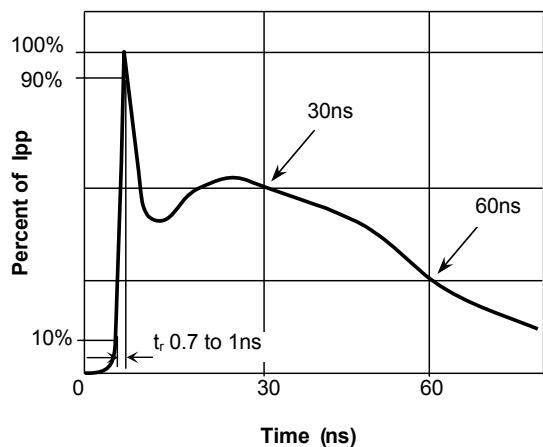
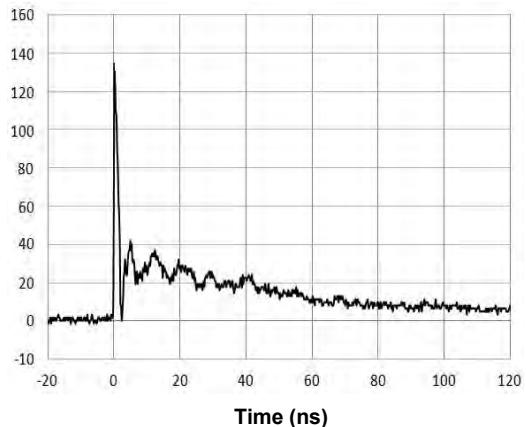
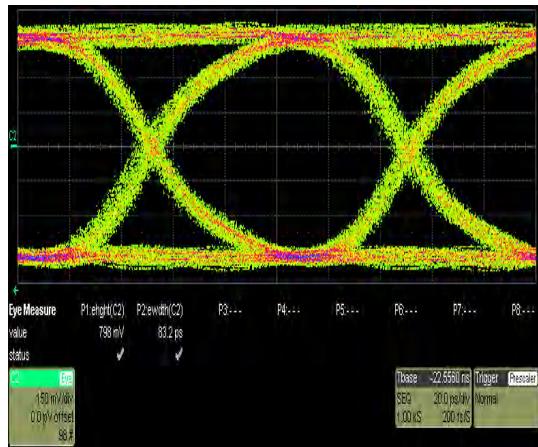
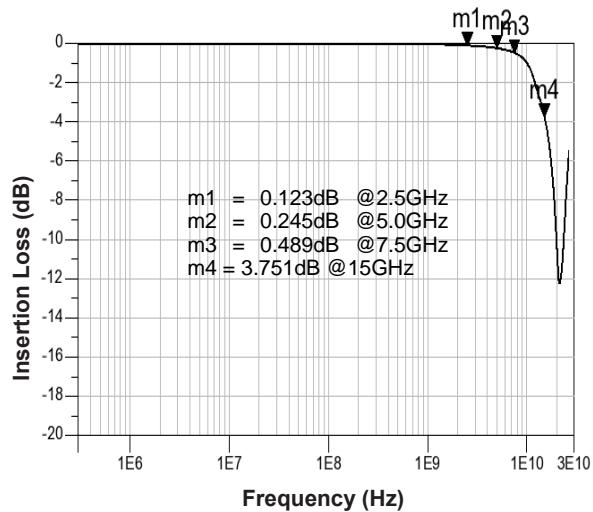
Ratings at 25 °C, ambient temperature unless otherwise specified

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)	$V_{ESD}$	12/15	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

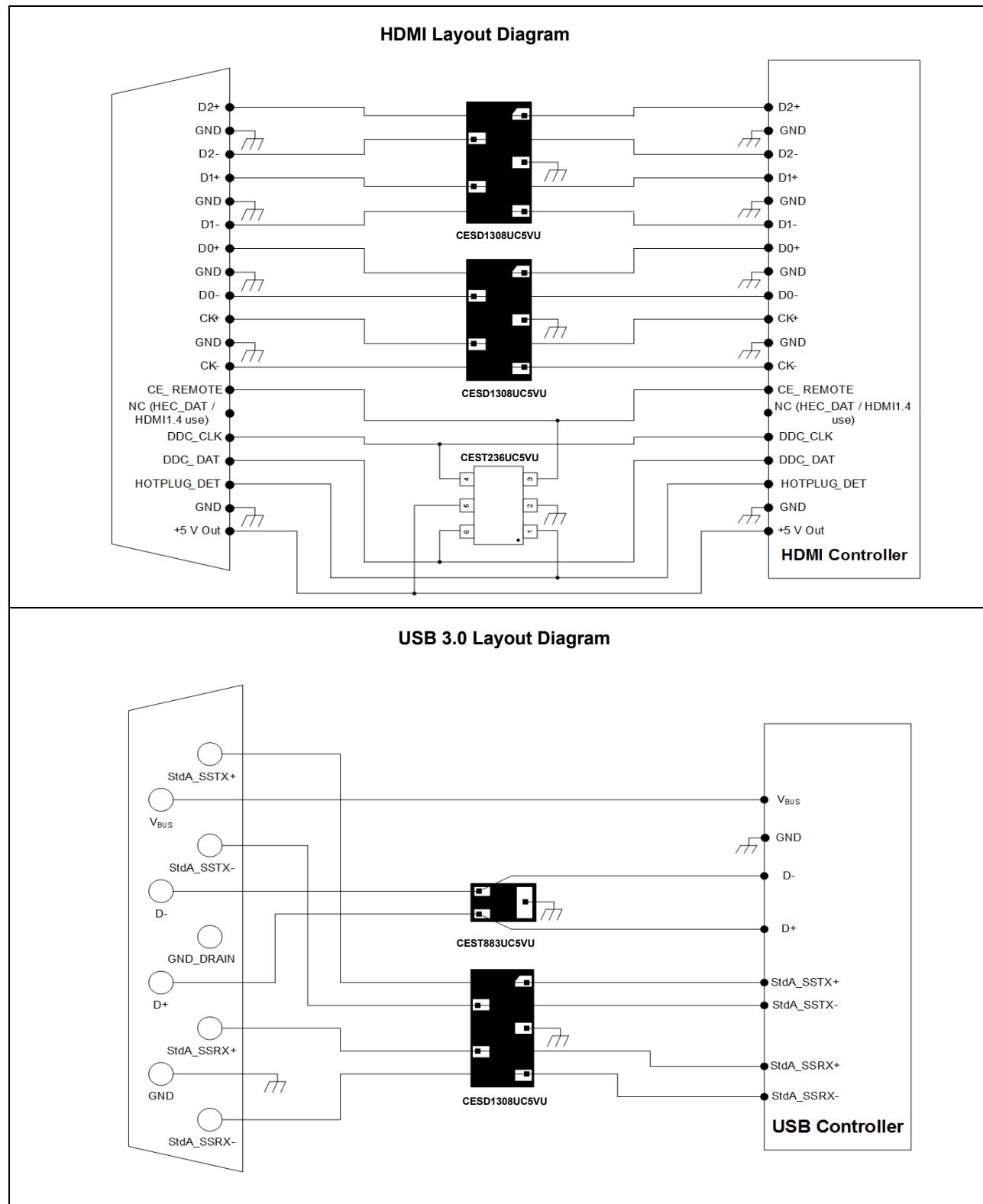
## Electrical Characteristics

( $T_A = 25$  °C unless otherwise specified)

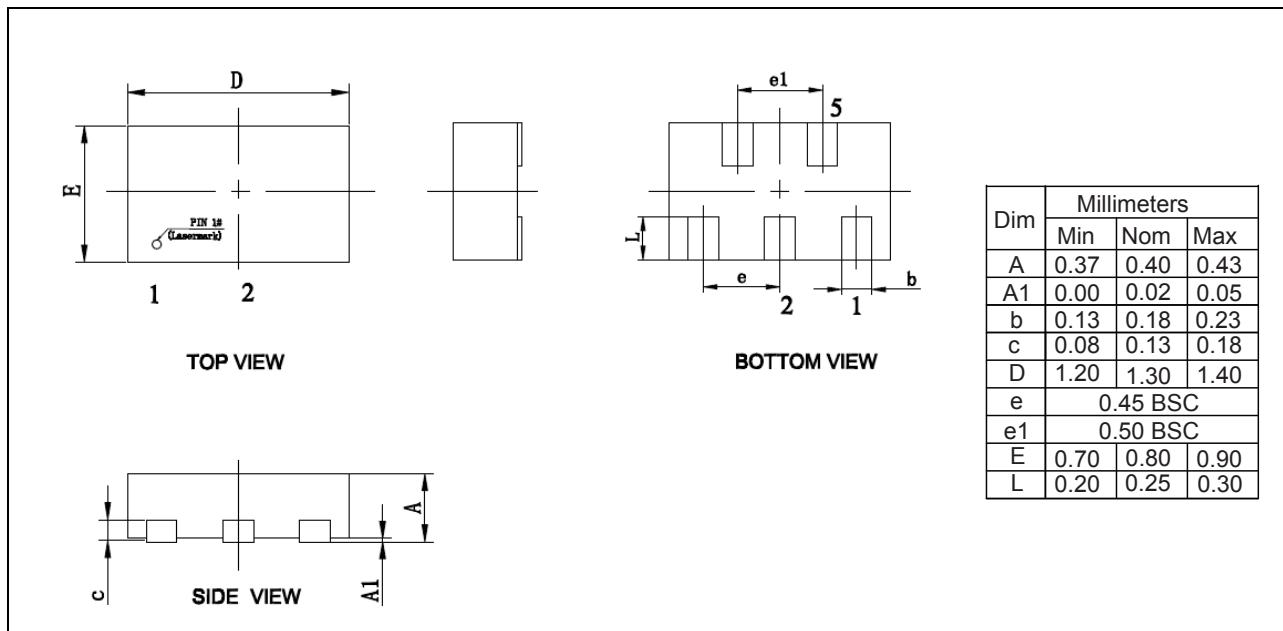
Parameter	Symbol	Condition	Min	Typ	Max	Unit
Reverse stand-off Voltage	$V_{RWM}$				5	V
Reverse Breakdown Voltage	$V_{BR}$	$I_T=1mA$	6	7.2		V
Reverse Leakage Current	$I_R$	$V_R=5V$		0.1	0.5	uA
Clamping Voltage(SURGE)	$V_C$	$I_{PP}=3A, T_p=8/20\mu s$			10	V
Junction Capacitance	$C_J$	$V_R=0V, f=1MHz, I/O to I/O$		0.15		pF
	$C_J$	$V_R=0V, f=1MHz, I/O to GND$		0.2		pF

**Typical Characteristics** ( $T_{amb} = 25^{\circ}\text{C}$  unless otherwise specified)
**Fig.1 Peak Pulse Power Rating Curve****Fig.2 Pulse Derating Curve****Fig.3 IEC61000-4-2 Waveform****Fig.4 IEC61000-4-2 +8kV Contact ESD Clamping Waveform****Fig.5 Eye Diagram - USB3.1 at 10Gbps per channel****Fig.6 Insertion Loss S21 - I/O to I/O**

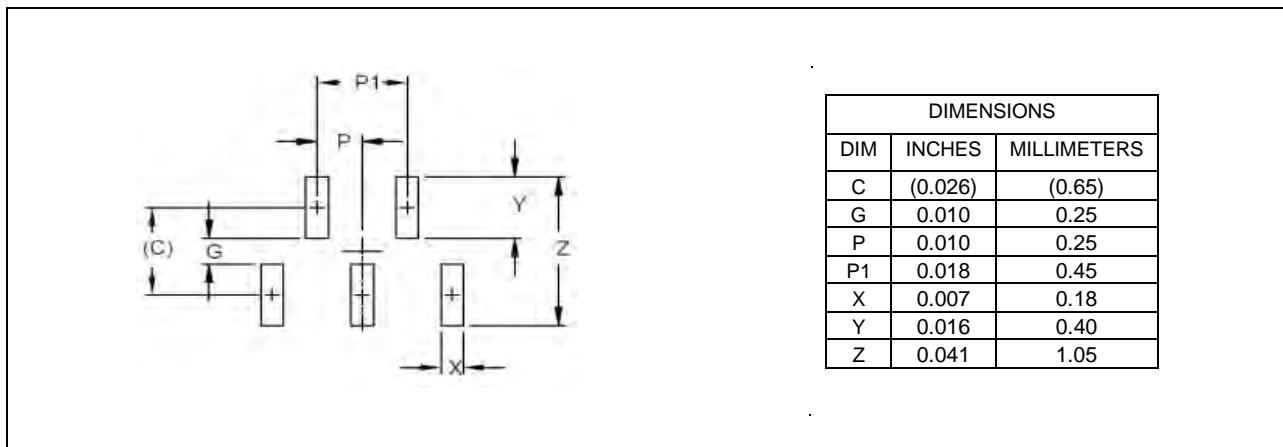
## Layout Diagrams



### Package Dimensions



### PAD Dimensions



### Ordering information

Order code	Marking	Package	Packaging option	Base quantity	Packaging specification
YEU13H50503AV	5UL	DFN1308-5	Tape and reel	3000pcs / reel	EIA STD RS-481