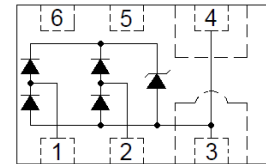


## Low Capacitance ESD TVS Array in DFN1610

### Features

- 100Watts peak pulse power ( $T_P = 8/20\mu s$ )
- DFN1610 package
- R2R + Zener technology
- Low clamping voltage
- Low leakage current
- Ultra low capacitance (0.2pF typical I/O to I/O)
- ESD Protection for high-speed data lines to:
  - IEC 61000-4-2  $\pm 20KV$  contact  $\pm 25KV$  air
  - IEC 61000-4-4 (EFT) 40A (5/50ns)
  - IEC 61000-4-5 (Lightning) 5A (8/20 $\mu s$ )



### Mechanical Data

- **Case:** DFN1610 (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

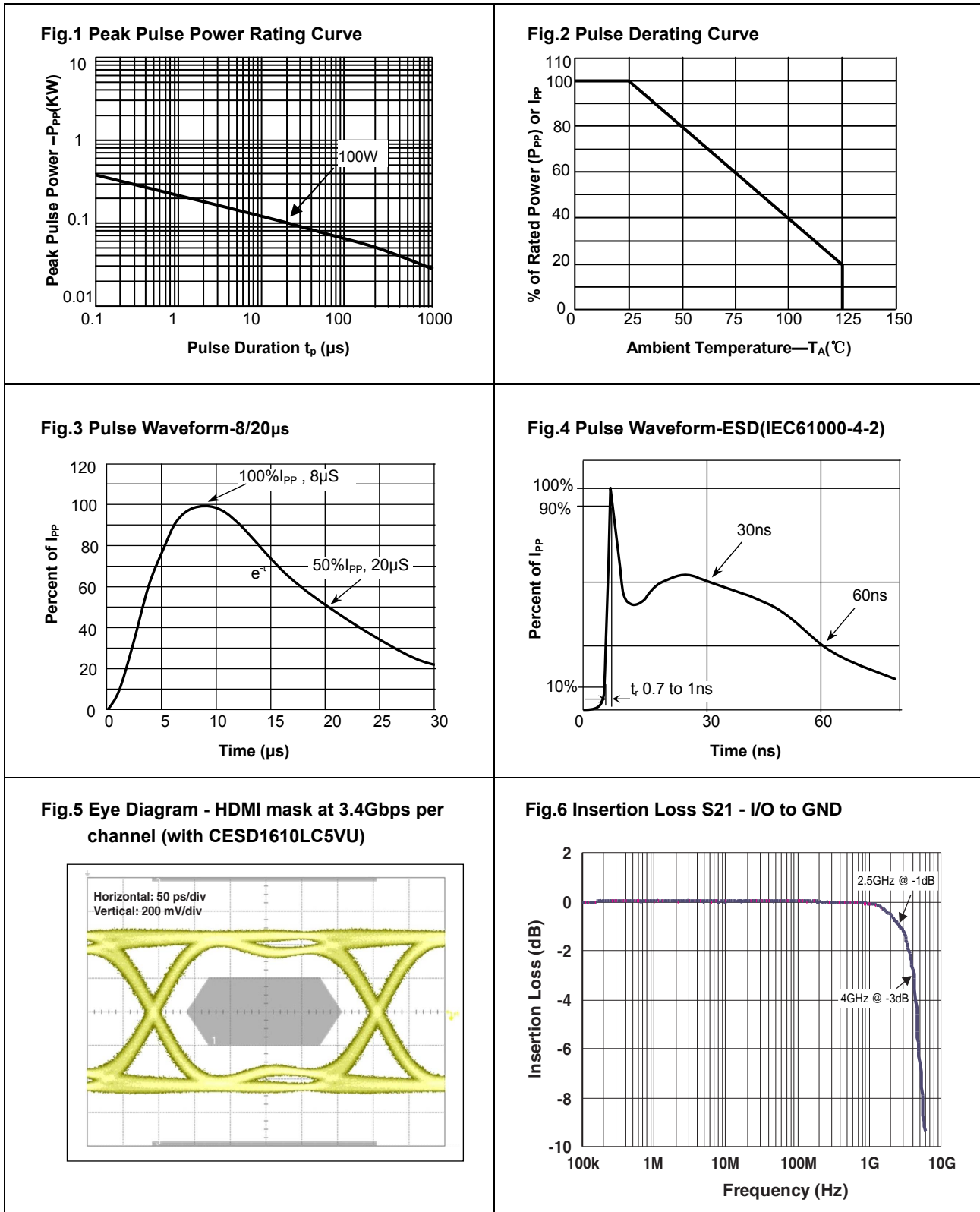
Parameter	Symbol	Value	Unit
Peak Pulse Power ( $T_P=8/20\mu s$ )	$P_{PP}$	100	W
ESD contact/air discharge (IEC-61000-4-2)	$V_{ESD}$	20/25	kV
Peak Pulse Current ( $T_P = 8/20\mu s$ )	$I_{PP}$	5.0	A
Junction Temperature	$T_J$	-55 to +125	°C
Storage temperature	$T_{STG}$	-55 to +150	°C

### Electrical Characteristics

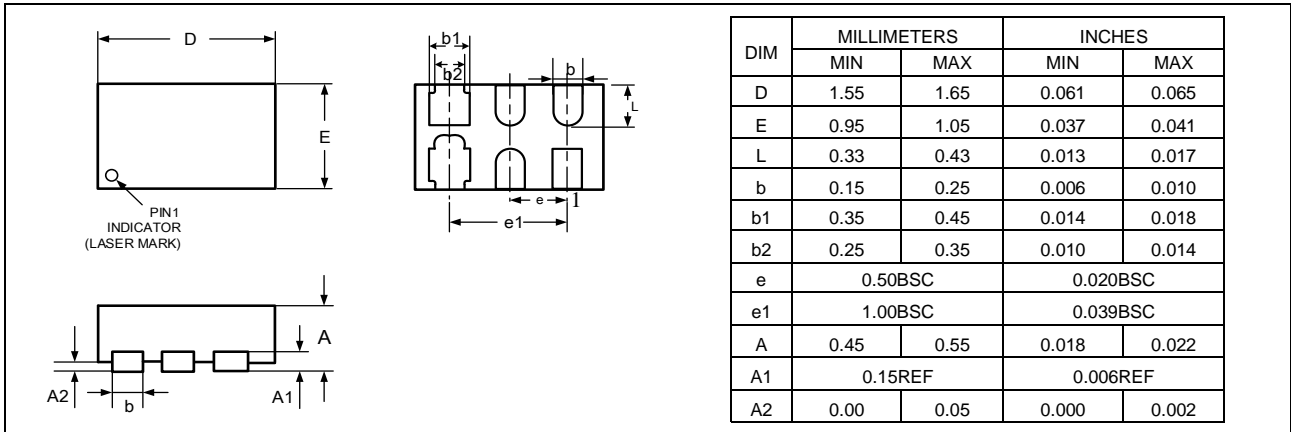
( $T_A = 25\text{ °C}$  unless otherwise specified)

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Reverse stand-off Voltage	$V_{RWM}$				5	V
Reverse Breakdown Voltage	$V_{BR}$	$I_T=1mA$	5.6	6.8		V
Reverse Leakage Current	$I_R$	$V_R=5V$		0.01	1	$\mu A$
Clamping Voltage(SURGE)	$V_C$	$I_{PP}=6A, T_P=8/20\mu s$		15	20	V
Clamping Voltage(ESD)	$V_C$	$V_{ESD} = +8kV$		15		V
Junction Capacitance	$C_J$	$V_R=0V, f=1MHz, I/O$ to I/O		0.2	0.4	pF
	$C_J$	$V_R=0V, f=1MHz, I/O$ to GND		0.4	0.8	pF

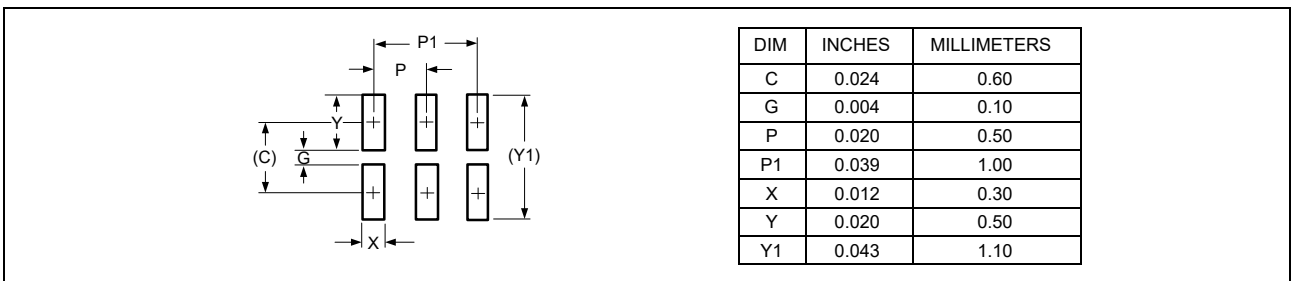
## Typical Characteristics ( $T_{amb} = 25\text{ }^{\circ}\text{C}$ unless otherwise specified)



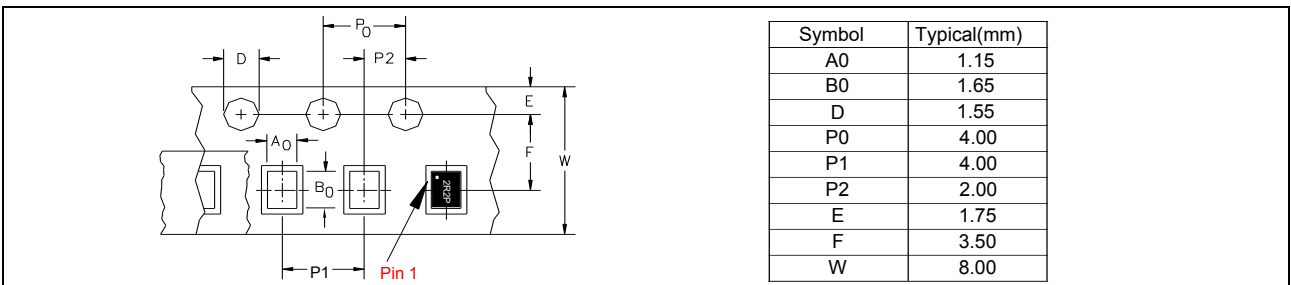
## Package Dimensions



## PAD Dimensions



## Package Information



## Marking



## Ordering information

Order code	Package	Packaging option	Base quantity	Packaging specification
TESD1610LC5VU	DFN1610	Tape and reel	3000pcs / reel	EIA STD RS-481