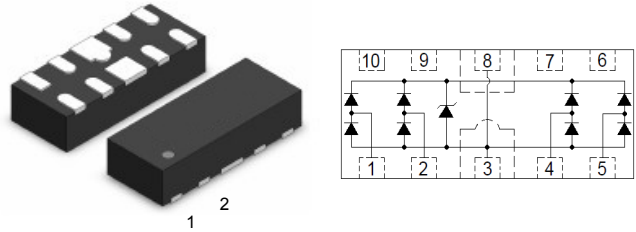


## Low Capacitance ESD TVS Array in DFN2510

### Features

- 80Watts 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 (0.3pF typical I/O to I/O)
- ESD Protection for high-speed data lines to:
  - IEC 61000-4-2  $\pm 15kV$  contact  $\pm 15kV$  air
  - IEC 61000-4-4 (EFT) 40A (5/50ns)
  - IEC 61000-4-5 (Lightning) 5A (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

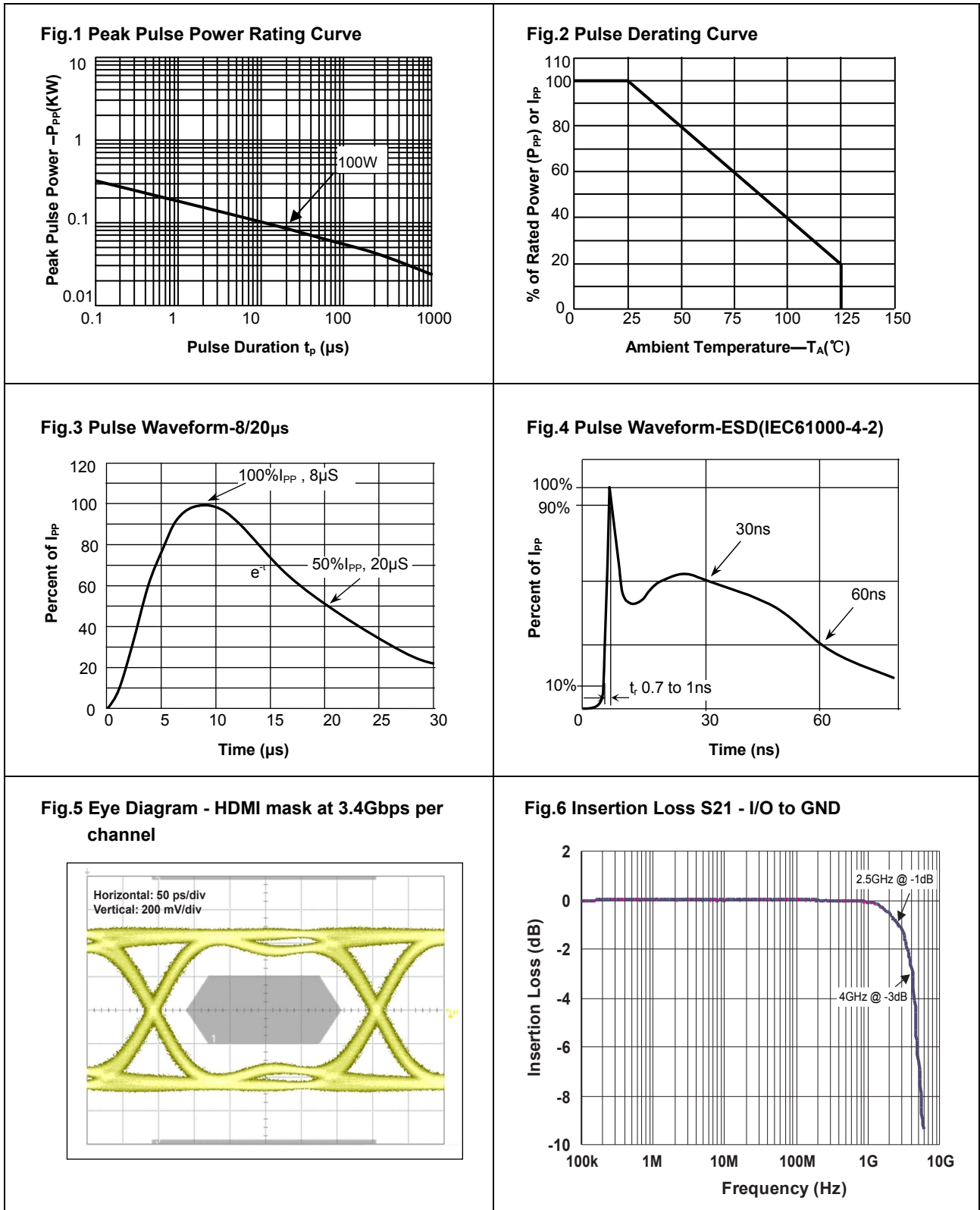
| Parameter                                 | Symbol    | Value       | Unit |
|---|-----------|-------------|------|
| Peak Pulse Power ( $T_P=8/20\mu s$ )      | $P_{PP}$  | 80          | W    |
| ESD contact/air discharge (IEC-61000-4-2) | $V_{ESD}$ | 15/15       | kV   |
| Peak Pulse Current ( $T_P = 8/20\mu s$ )  | $I_{PP}$  | 5.0         | A    |
| Junction Temperature                      | $T_J$     | -55 to +125 | °C   |
| Storage temperature                       | $T_{STG}$ | -55 to +150 | °C   |

### Electrical Characteristics

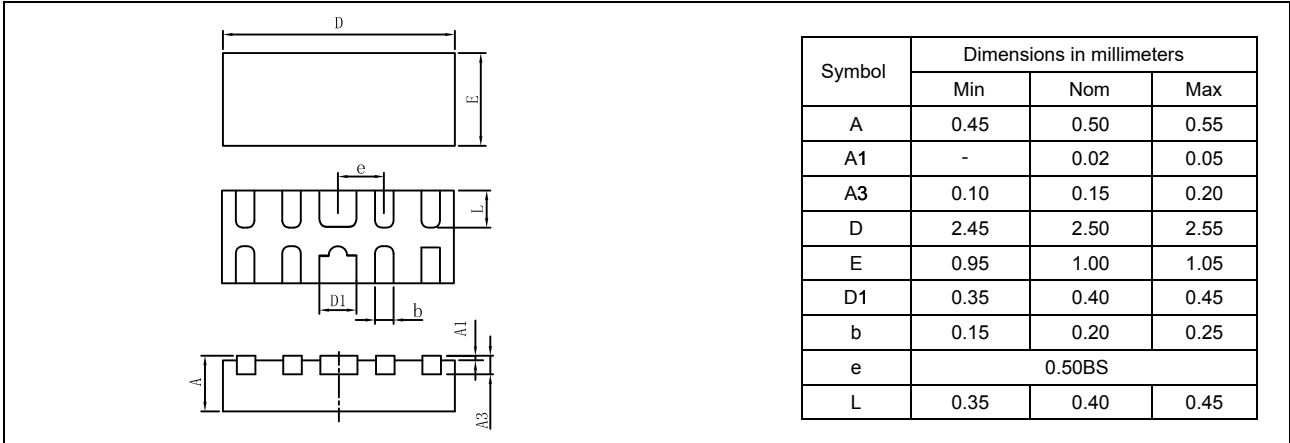
( $T_A = 25\text{ °C}$  unless otherwise specified)

| Parameter                 | Symbol    | Condition                    | Min | Typ | Max | Unit    |
|---------------------------|-----------|------------------------------|-----|-----|-----|---------|
| Reverse stand-off Voltage | $V_{RWM}$ |                              |     |     | 5   | V       |
| Reverse Breakdown Voltage | $V_{BR}$  | $I_T=1mA$                    | 6   | 7.0 | 9.5 | V       |
| Reverse Leakage Current   | $I_R$     | $V_R=5V$                     |     |     | 1   | $\mu A$ |
| Clamping Voltage(SURGE)   | $V_C$     | $I_{PP}=5A, T_P=8/20\mu s$   |     | 13  |     | V       |
| Clamping Voltage(ESD)     | $V_C$     | $V_{ESD} = +8kV$             |     | 20  |     | V       |
| Junction Capacitance      | $C_J$     | $V_R=0V, f=1MHz, I/O$ to I/O |     | 0.3 |     | pF      |
|                           | $C_J$     | $V_R=0V, f=1MHz, I/O$ to GND |     | 0.4 | 0.8 | pF      |

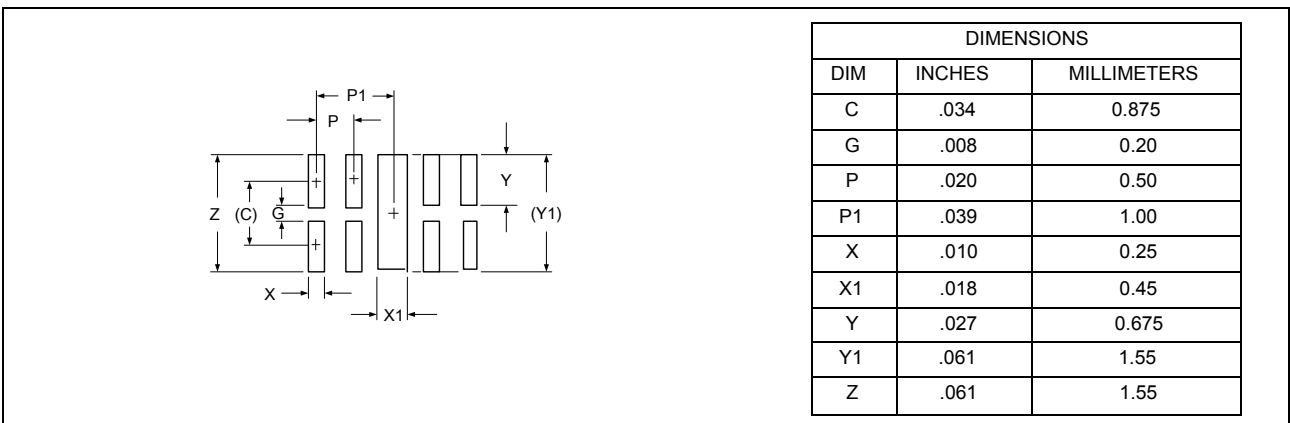
## Typical Characteristics ( $T_{amb} = 25\text{ }^{\circ}\text{C}$ unless otherwise specified)



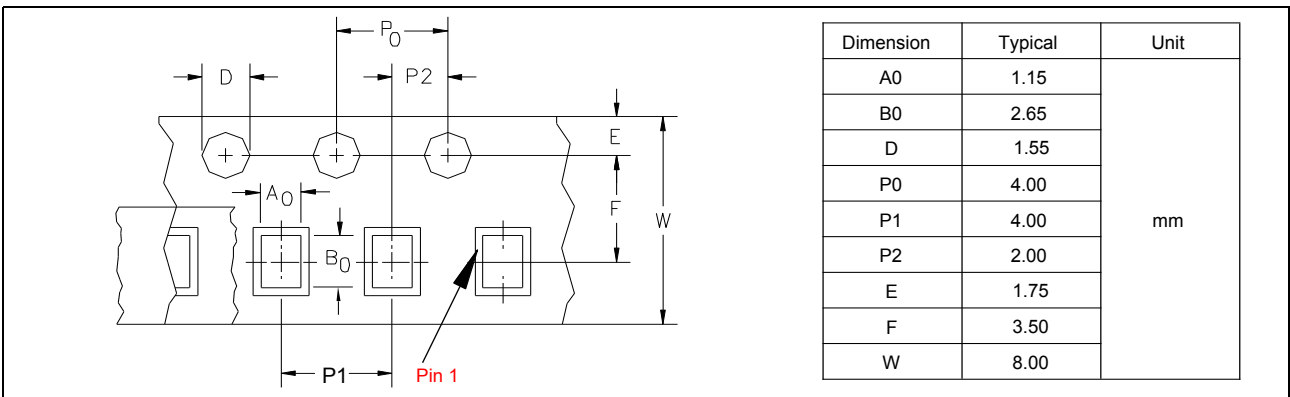
## Package Dimensions



## Pad Dimensions



## Package Information



## Ordering information

| Order code    | Marking | Package | Packaging option | Base quantity  | Packaging specification |
|---------------|---------|---------|------------------|----------------|-------------------------|
| TESD2510LC5VU | S5U     | DFN2510 | Tape and reel    | 3000pcs / reel | EIA STD RS-481          |