

### Features

- Ultra low leakage: nA level
- Operating voltage: 3.3V
- Low clamping voltage
- Complies with following standards:
  - IEC 61000-4-2 (ESD) immunity test
    - Air discharge:  $\pm 17\text{kV}$
    - Contact discharge:  $\pm 15\text{kV}$
  - IEC61000-4-4 (EFT) 40A (5/50ns)
  - IEC61000-4-5 (Lightning) 3A (8/20 $\mu\text{s}$ )
- RoHS Compliant

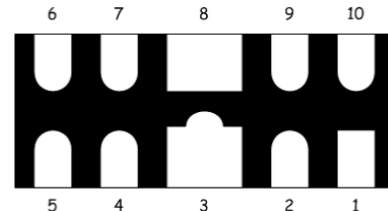
### Applications

- USB 3.0 / USB 3.1 Interfaces
- HDMI 1.4 / HDMI 2.0 Interfaces
- Video Graphics Cards
- Notebooks, Desktops, and Servers
- Portable Instrumentation
- Industrial Controls
- Peripherals

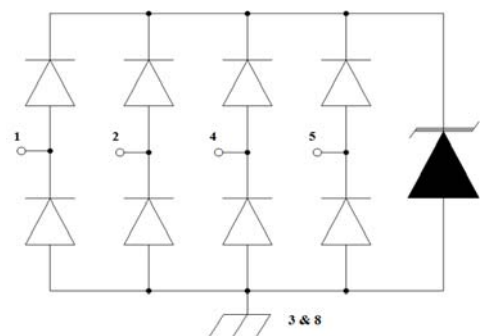
### Mechanical Characteristics

- Package: DFN2510P10
- Lead Finish: Lead Free
- UL Flammability Classification Rating 94V-0
- Quantity Per Reel: 3,000pcs
- Reel Size: 7 inch

### Dimensions DFN2510P10



### Pin Configuration



### Absolute Maximum Ratings (T<sub>amb</sub>=25°C unless otherwise specified)

| Parameter                              | Symbol           | Value       | Unit |
|----------------------------------------|------------------|-------------|------|
| Peak Pulse Power (8/20 $\mu\text{s}$ ) | P <sub>pp</sub>  | 45          | W    |
| ESD per IEC 61000-4-2 (Air)            | V <sub>ESD</sub> | $\pm 17$    | Kv   |
| ESD per IEC 61000-4-2 (Contact)        |                  | $\pm 15$    |      |
| Operating Temperature Range            | T <sub>J</sub>   | -55 to +125 | °C   |
| Storage Temperature Range              | T <sub>STJ</sub> | -55 to +150 | °C   |

## Electrical Characteristics (TA=25°C unless otherwise specified)

| Part Number | Device Marking | $V_{RWM}$<br>(V) | $V_{BR}$<br>(V) | $I_T$<br>(mA) | $V_C$<br>@1A | $V_C$ |      | $I_R$<br>$\mu A$<br>(Max) | C<br>(Pf)<br>(Typ.) |
|-------------|----------------|------------------|-----------------|---------------|--------------|-------|------|---------------------------|---------------------|
|             |                |                  |                 |               |              | (Max) | (@A) |                           |                     |
| ULC3324P10  | P32A           | 3.3              | 4               | 1             | 6.2          | 15    | 3    | 1                         | 0.5                 |

## Characteristic Curves

Fig1. 8/20 $\mu s$  Pulse Waveform

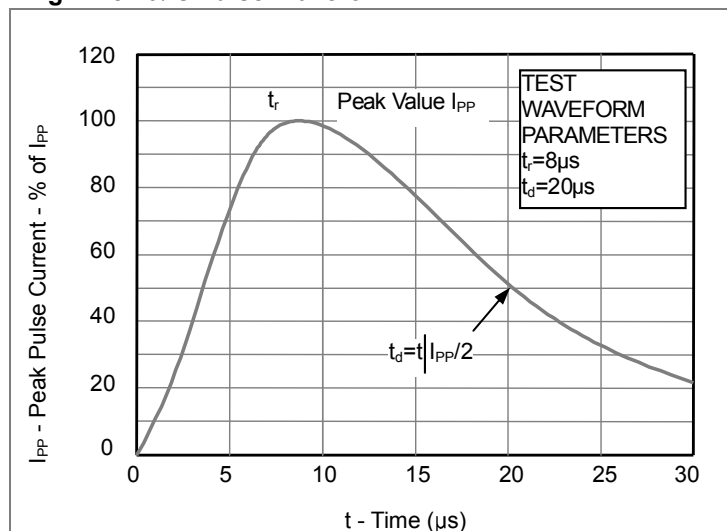


Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)

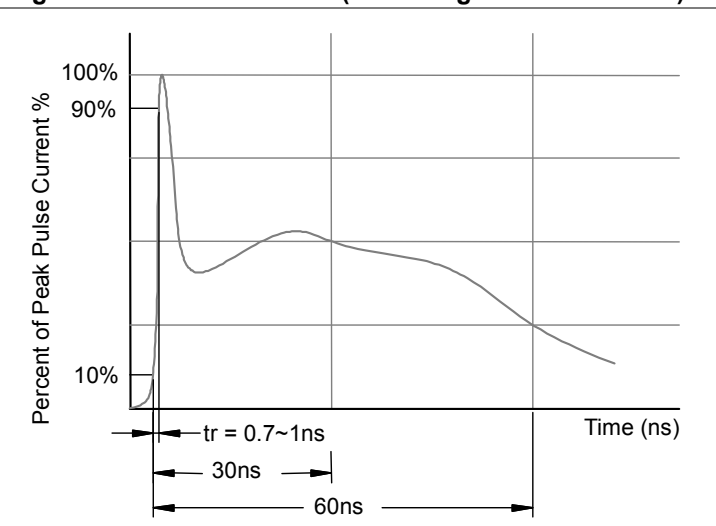


Fig3. Power Derating Curve

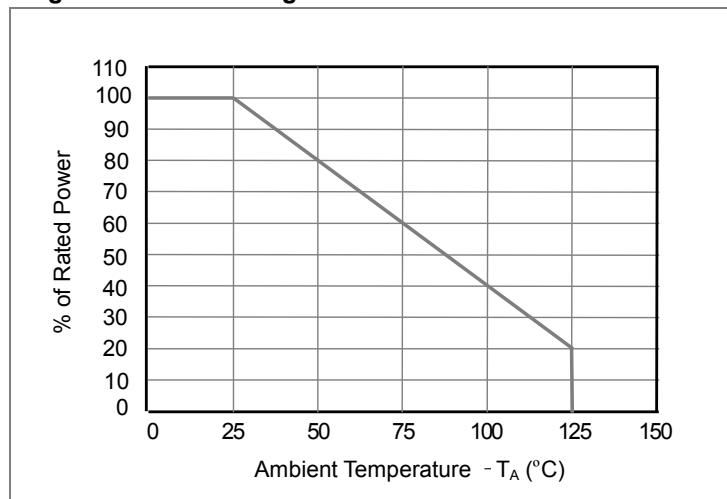


Fig 4. Clamping Voltage vs . Peak Pulse Current (tp=8/20us)

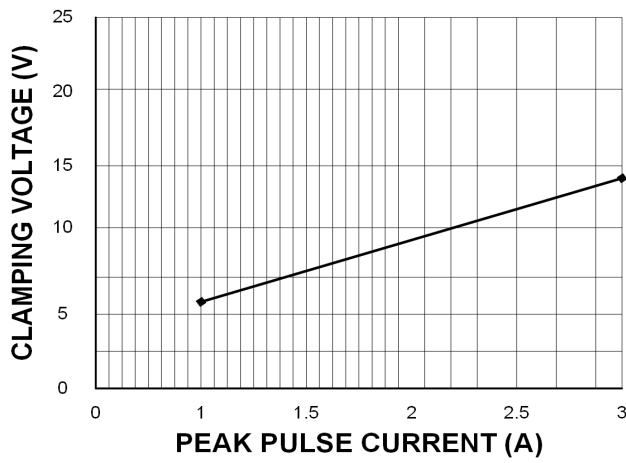
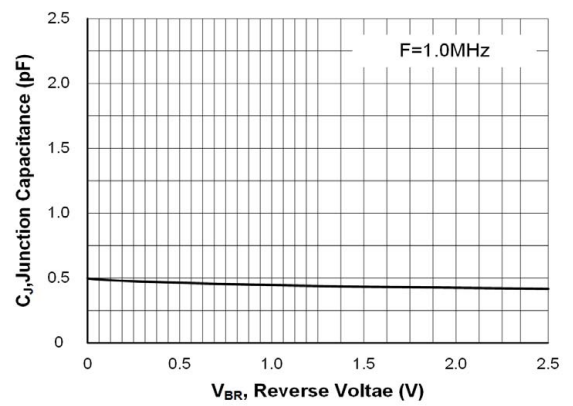
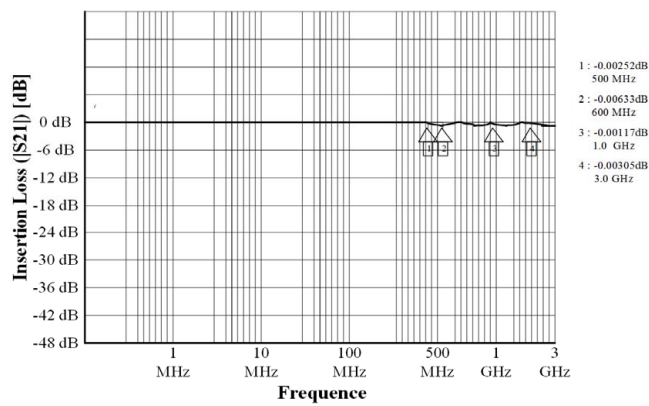


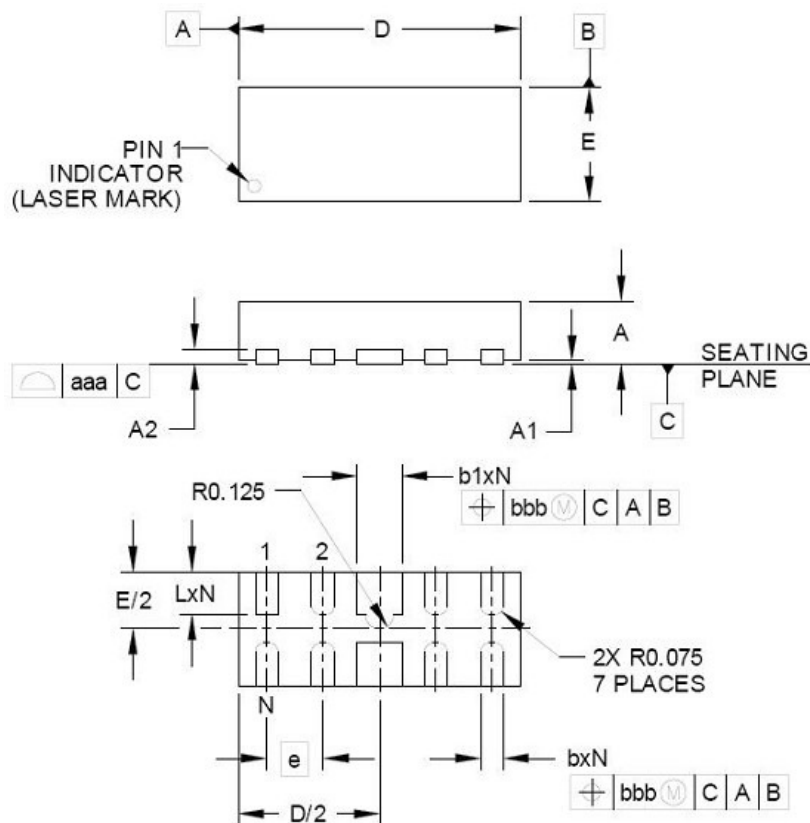
Fig 5. Typic Capacitance vs. Reverse Voltage



Insection Loss (S21)

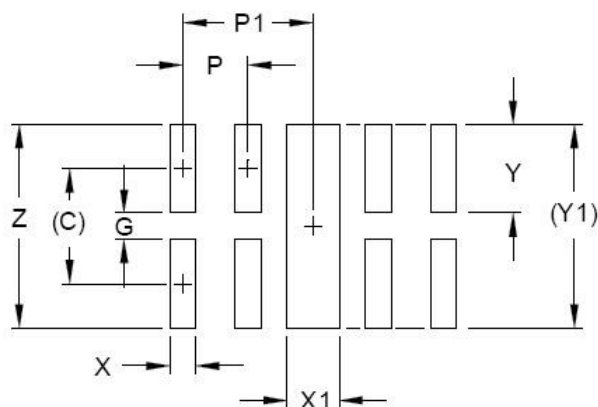


## DFN2510P10 PACKAGE OUTLINE & DIMENSIONS



| DIM | INCHES |          |      | MILLIMETERS |          |       |
|-----|--------|----------|------|-------------|----------|-------|
|     | MIN    | NOM      | MAX  | MIN         | NOM      | MAX   |
| A   | .020   | .023     | .026 | 0.50        | 0.58     | 0.65  |
| A1  | 0.00   | .001     | .002 | 0.00        | 0.03     | 0.05  |
| A2  |        | (.005)   |      |             | (0.13)   |       |
| b   | .006   | .008     | .010 | 0.15        | 0.20     | 0.25  |
| b1  | .014   | .016     | .018 | 0.35        | 0.40     | 0.45  |
| D   | .094   | .098     | .102 | 2.40        | 2.50     | 2.60  |
| E   | .035   | .039     | .043 | 0.90        | 1.00     | 1.10  |
| e   |        | .020 BSC |      |             | 0.50 BSC |       |
| L   | .012   | .015     | .017 | 0.30        | 0.38     | 0.425 |
| N   |        | 10       |      |             | 10       |       |
| aaa |        | .003     |      |             | 0.08     |       |
| bbb |        | .004     |      |             | 0.10     |       |

### \* SOLDERING FOOTPRINT



| DIM | DIMENSIONS |             |
|-----|------------|-------------|
|     | INCHES     | MILLIMETERS |
| C   | (.034)     | (0.875)     |
| G   | .008       | 0.20        |
| P   | .020       | 0.50        |
| P1  | .039       | 1.00        |
| X   | .008       | 0.20        |
| X1  | .016       | 0.40        |
| Y   | .027       | 0.675       |
| Y1  | (.061)     | (1.55)      |
| Z   | .061       | 1.55        |