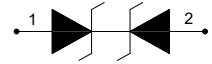
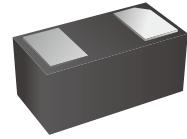


## ESD Protection Diodes

### Features

- IEC 61000-4-2 (ESD)
  - ±30kV Contact Discharge
  - ±30kV Air Discharge
- 1000W Peak pulse Power (8/20μs)
- IEC 61000-4-4 EFT Protection
  - 40A (5/50ns)
- Protects one power or I/O
- Transient protection for high-speed data lines
- Low clamping voltage
- Low leakage current
- Lead free in comply with EU RoHS 2011/65/EU directives



### Applications

- Cell Phone Handsets and Accessories
- Microprocessor based equipment
- Personal Digital Assistants
- Notebooks / Desktops / Servers
- Portable Instrumentation
- Peripherals & Pagers
- Flammability Rating:UL94V-0

### Ordering Information

| Part Number       | Marking | Shipping          | Reel    |
|-------------------|---------|-------------------|---------|
| LTE16N05C01HD-TR3 | 3X      | 3000PCS Tape&Reel | 7 inchs |

## Absolute Maximum Rating

Over operating free-air temperature range (unless otherwise noted)

| Parameters                                 | Symbol           | Min. | Max. | Unit |
|--|------------------|------|------|------|
| Peak pulse power (tp=8/20μs) @25°C         | P <sub>pk</sub>  | -    | 1000 | W    |
| Peak pulse current (tp=8/20μs) @25°C       | I <sub>PP</sub>  |      | 100  | A    |
| ESD (IEC61000-4-2 air discharge) @25°C     | V <sub>ESD</sub> | -    | ±30  | kV   |
| ESD (IEC61000-4-2 contact discharge) @25°C | V <sub>ESD</sub> | -    | ±30  | kV   |
| Junction temperature                       | T <sub>J</sub>   | -    | 150  | °C   |
| Operating temperature                      | T <sub>OP</sub>  | -40  | 125  | °C   |
| Storage temperature                        | T <sub>STG</sub> | -55  | 150  | °C   |
| Lead temperature                           | T <sub>L</sub>   | -    | 260  | °C   |

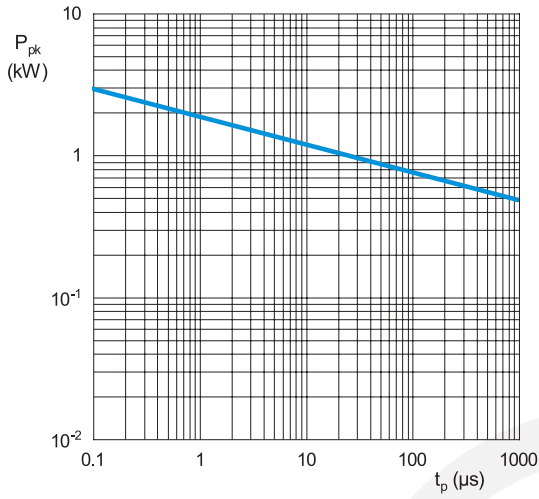
## Electrical Characteristics

At TA = 25°C unless otherwise noted

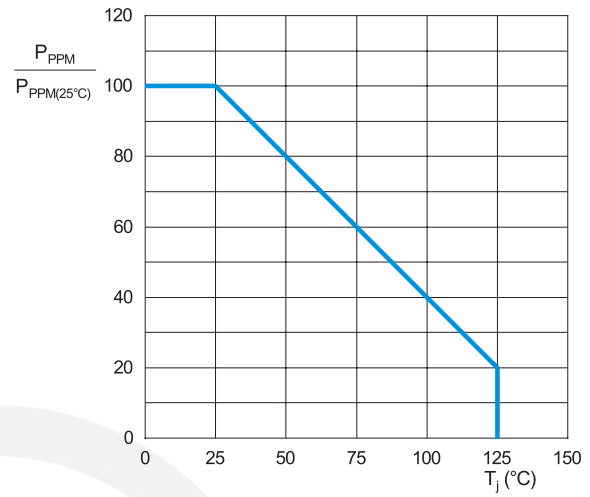
| Parameter                 | Symbol           | Conditions                       | Min. | Typ. | Max. | Units |
|---------------------------|------------------|----------------------------------|------|------|------|-------|
| Reverse Stand-off Voltage | V <sub>RWM</sub> |                                  |      |      | 5.0  | V     |
| Reverse Breakdown Voltage | V <sub>BR</sub>  | I <sub>T</sub> =1mA              | 6.0  |      |      | V     |
| Reverse Leakage Current   | I <sub>R</sub>   | V <sub>RWM</sub> =5V             |      |      | 1    | uA    |
| Clamping Voltage          | V <sub>C</sub>   | I <sub>PP</sub> =50A; tp=8/20us  |      | 9    |      | V     |
| Clamping Voltage          | V <sub>C</sub>   | I <sub>PP</sub> =100A; tp=8/20us |      | 10.5 |      | V     |
| Junction Capacitance      | C <sub>J</sub>   | I/O to GND; VR=0V; f=1MHz        |      | 200  |      | pF    |

**Characteristic Curves**

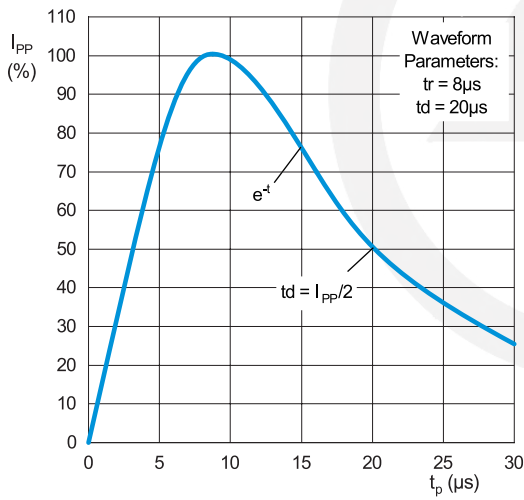
**Fig.1 Pulse rating curve**



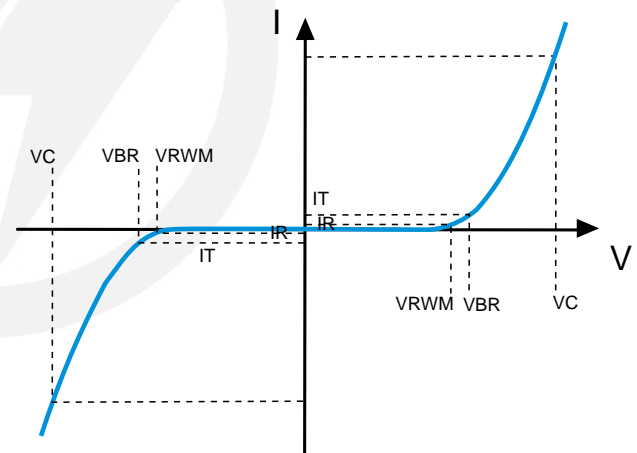
**Fig.2 Peak pulse power derating curve**



**Fig.3 Pulse waveform**

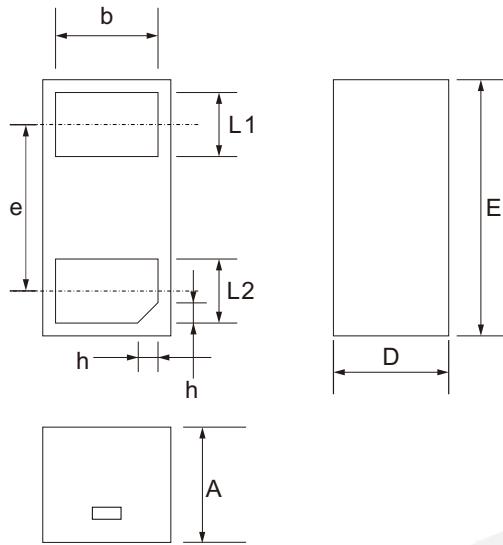


**Fig.4 Parameters**





### DFN1610-2L Package Outline



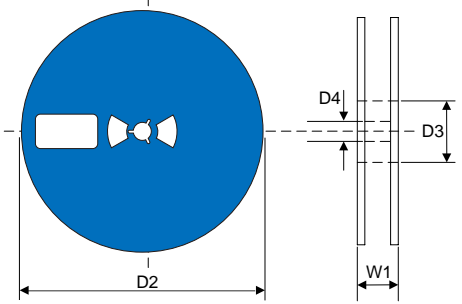
Unit: mm

| SYMBOL | DIMENSIONS |       |
|--------|------------|-------|
|        | MIN.       | MAX.  |
| D      | 0.950      | 1.050 |
| E      | 1.550      | 1.650 |
| L1     | 0.350      | 0.450 |
| L2     | 0.350      | 0.450 |
| b      | 0.750      | 0.850 |
| e      | 1.090 TYP. |       |
| A      | 0.450      | 0.550 |
| h      | 0.150      | 0.250 |

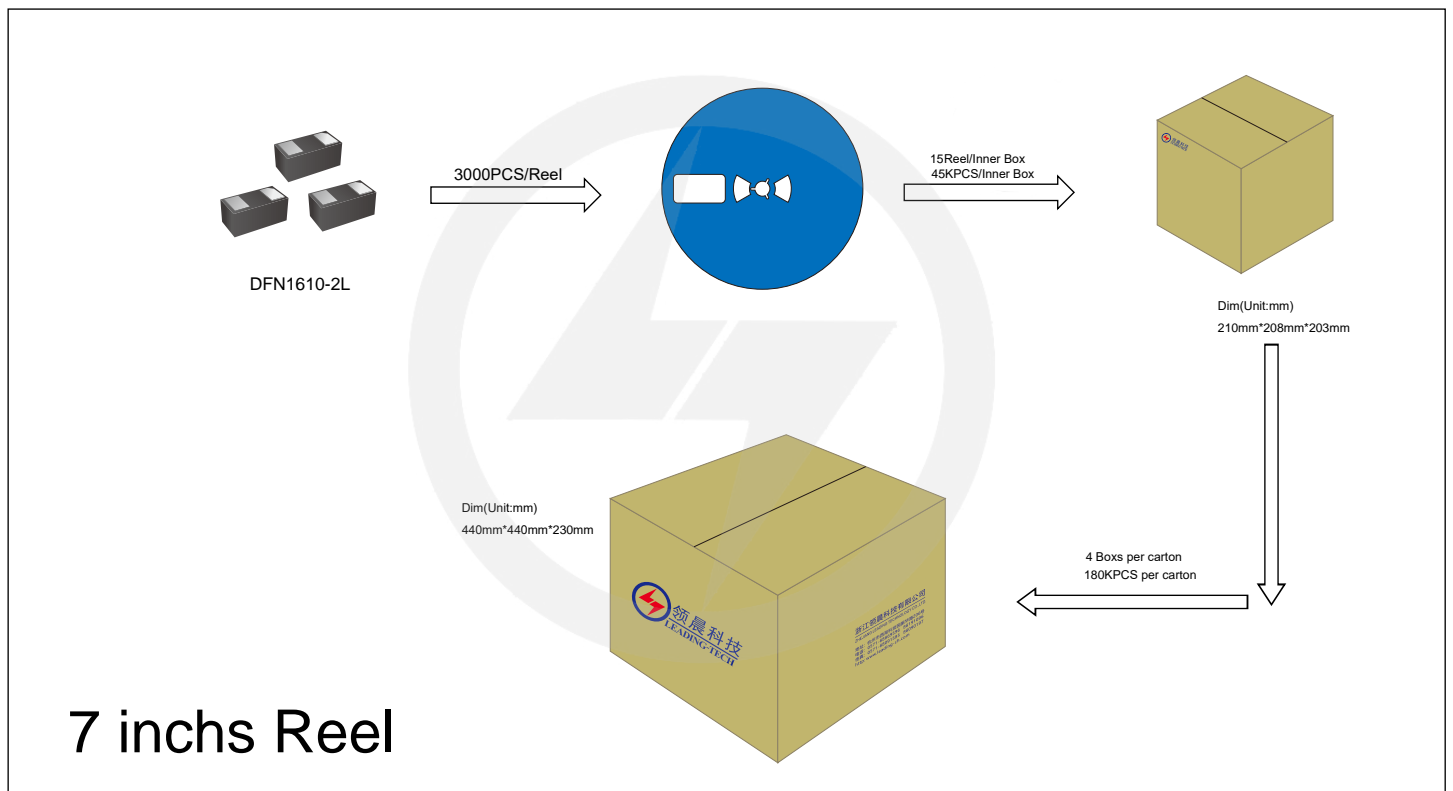


## Reel Dimensions

Unit : mm

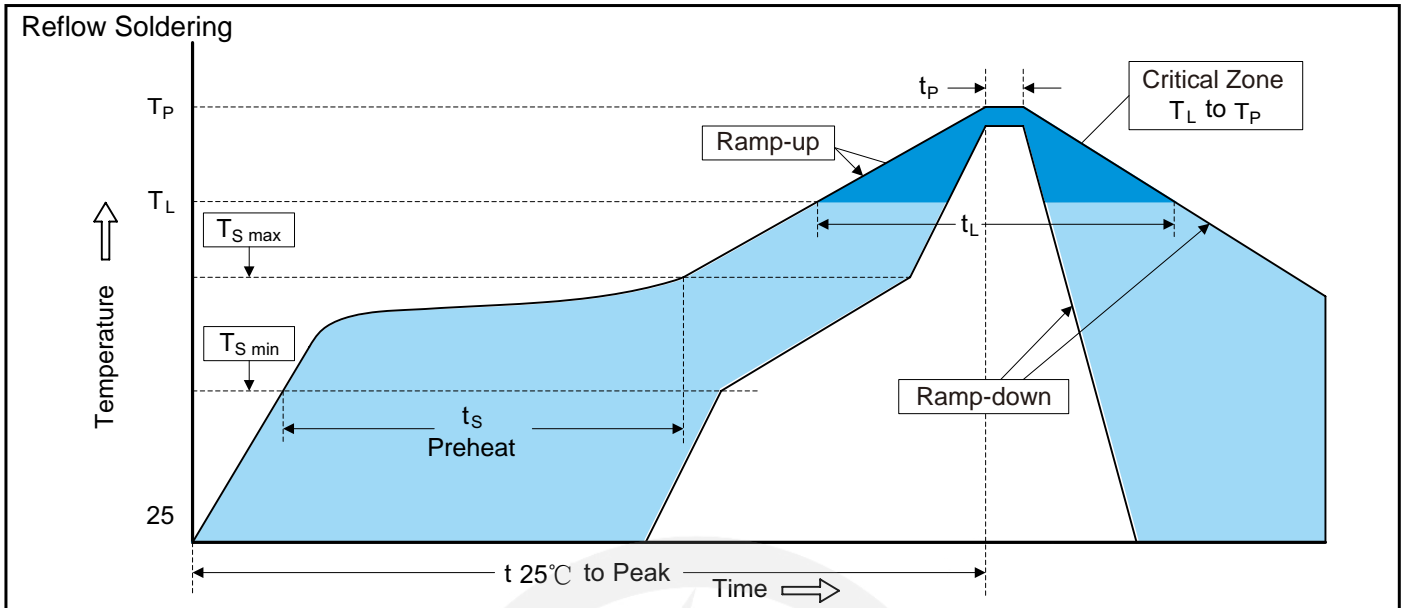
|  |                   |                      |
|--|-------------------|----------------------|
| <p>7" Reel</p>  | D2                | $\Phi 178.0 \pm 2.0$ |
|  | D3                | $\Phi 50$            |
|  | D4                | $13.0 \pm 0.5$       |
|  | W1                | $12 \pm 0.5$         |
|  | Quantity: 3000PCS |                      |

## Packaging





Recommended Soldering Conditions



Recommended Conditions

| Profile Feature  | Pb-Free Assembly |
|--|------------------|
| Average ramp-up rate (T <sub>L</sub> to T <sub>P</sub> )     | 3°C/second max.  |
| Preheat  |                  |
| -Temperature Min (T <sub>S min</sub> )                       | 150°C            |
| -Temperature Max (T <sub>S max</sub> )                       | 200°C            |
| -Time (min to max) (t <sub>s</sub> )                         | 60-180 seconds   |
| T <sub>S max</sub> to T <sub>L</sub>                         |                  |
| -Ramp-up Rate  | 3°C/second max.  |
| Time maintained above:                                       |                  |
| -Temperature (T <sub>L</sub> )                               | 217°C            |
| -Time (t <sub>L</sub> )                                      | 60-150 seconds   |
| Peak Temperature (T <sub>P</sub> )                           | 260°C            |
| Time within 5°C of actual Peak Temperature (t <sub>p</sub> ) | 20-40 seconds    |
| Ramp-down Rate   | 6°C/second max.  |
| Time 25°C to Peak Temperature                                | 8 minutes max.   |

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## Version Update Information

| Series NO. | Enactment/Revision Date | Effective Date | Version | Revision content | Revision Reason | Revision Person | Note |
|------------|-------------------------|----------------|---------|------------------|-----------------|-----------------|------|
| 01         | 2025.09.11              | 2025.09.11     | 3.0     | New File         | /               | Ding            |      |