



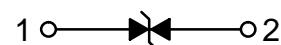
## Description

The LESD8D24CT5G protects sensitive semiconductor components from damage or upset due to electrostatic discharge (ESD) and other voltage induced transient events. Excellent clamping capability, low leakage, low capacitance, and fast response time provide best in class protection on designs that are exposed to ESD.

It gives designer the flexibility to protect one bi-directional line in applications where arrays are not practical.



DFN1006-2L  
(SOD-882)



Circuit Diagram

## Features

- ★ Small Body Outline Dimensions:  
1.00 mm x 0.60 mm
- ★ Low Body Height: 0.50 mm
- ★ Low Leakage
- ★ Response Time is Typically < 1 ns
- ★ ESD Rating of Class 3 per Human Body Model
- ★ IEC61000-4-2 Level 4 ESD Protection
- ★ We declare that the material of product compliance with RoHS requirements and Halogen Free.

## Ordering Information

| Product ID   | Pack                | Qty(PCS) |
|--------------|---------------------|----------|
| LESD8D24CT5G | DFN1006-2L(SOD-882) | 10000    |

## Absolute Ratings ( $T_{amb}=25^{\circ}C$ )

| Symbol    | Parameter   | Value                              | Units      |
|-----------|---|------------------------------------|------------|
| $P_{PP}$  | Peak Pulse Power ( $t_p = 8/20\mu s$ )            | 300                                | W          |
| $T_L$     | Maximum lead temperature for soldering during 10s | 260                                | °C         |
| $T_{stg}$ | Storage Temperature Range                         | -55 to +150                        | °C         |
| $T_{op}$  | Operating Temperature Range                       | -40 to +125                        | °C         |
| $T_j$     | Maximum junction temperature                      | 150                                | °C         |
|           | IEC61000-4-2 (ESD)                                | air discharge<br>contact discharge | ±30<br>±30 |
|           |   |                                    | KV         |



**Electrical Parameter** ( $T_A = 25^\circ\text{C}$  unless otherwise noted)

| Device       | $V_{RWM}$ (V) | $I_R$ ( $\mu\text{A}$ )<br>@ $V_{RWM}$ | $V_{BR}$ (V) * |      | $I_{PP}$ (A) ** | $V_C$ (V) **<br>@ $I_{PP} = 5\text{A}$ | $P_{PK}$ (W) ** | $C$ (pF)<br>$VR=0\text{V}$ , $f=1\text{MHz}$ |
|--------------|---------------|--|----------------|------|-----------------|--|-----------------|--|
|              | Max           | Max                                    | Min            | Max  |                 |  |                 |  |
| LESD8D24CT5G | 24            | 0.1                                    | 25             | 29.9 | 5               | 60                                     | 300             | 15   |

\*  $V_{BR}$  is measured with a pulse test current  $I_T$  at an ambient temperature of  $25^\circ\text{C}$ .

\*\* Surge current waveform per Figure 1.

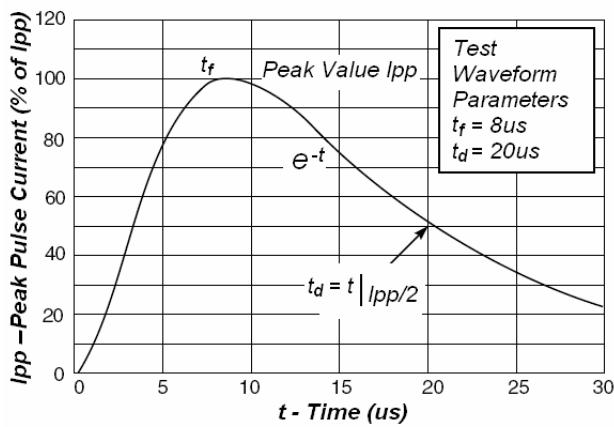


Fig1. Pulse Waveform

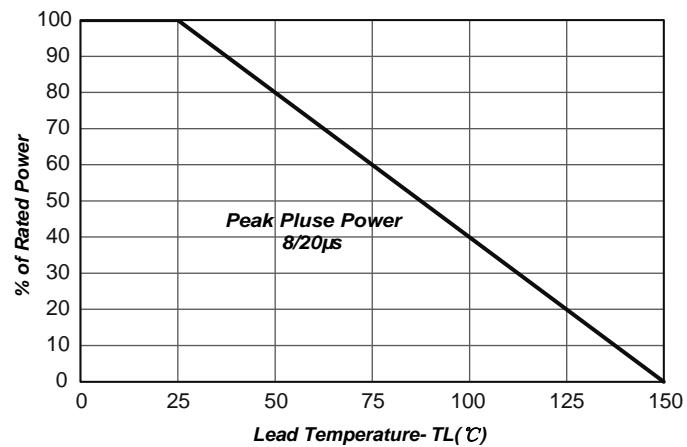


Fig2.Power Derating Curve

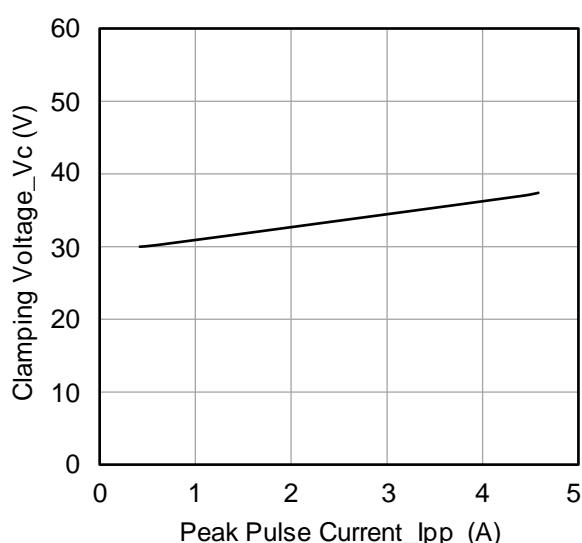


Fig 3. Clamping Voltage vs. Peak Pulse Current

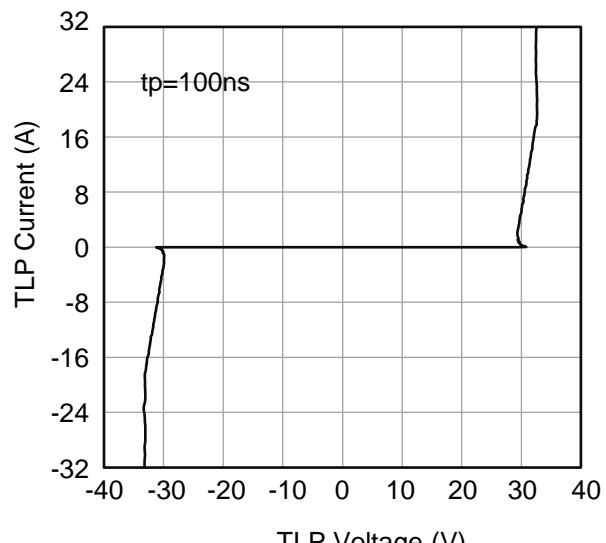
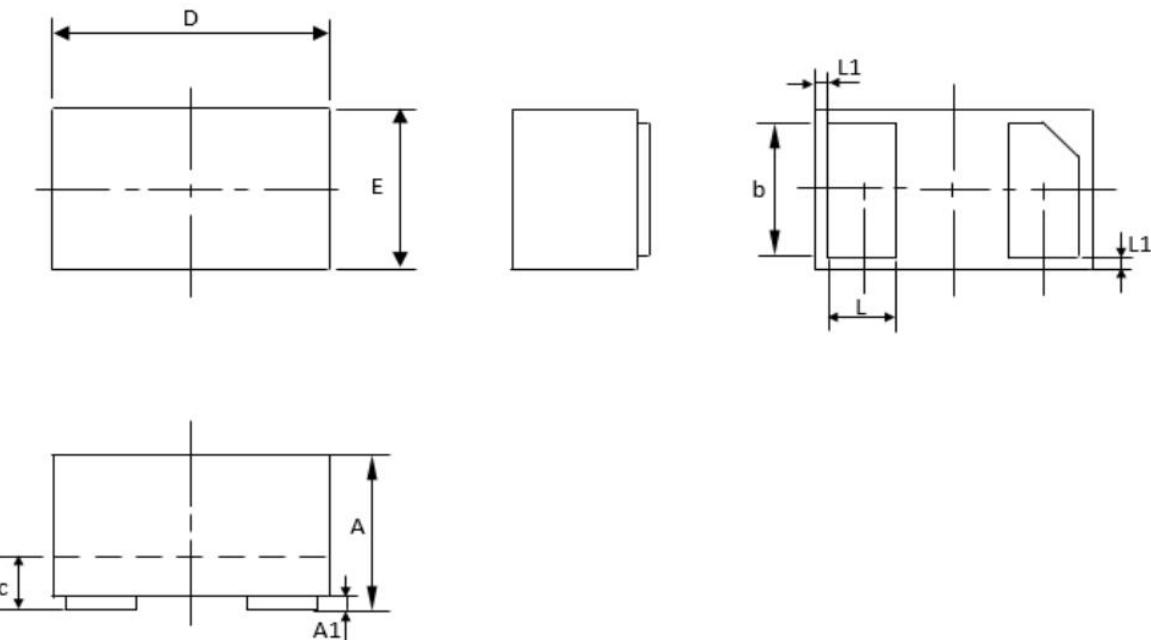


Fig 4.TLP Measurement



## Outline And Dimensions



| DFN1006-2L(SOD-882) |       |      |       |
|---------------------|-------|------|-------|
| Dim                 | Min   | Typ. | Max   |
| A                   | 0.46  | 0.48 | 0.50  |
| A1                  | 0     | 0.02 | 0.05  |
| b                   | 0.45  | 0.5  | 0.55  |
| c                   | 0.1   | 0.12 | 0.14  |
| D                   | 0.95  | 1.00 | 1.05  |
| E                   | 0.55  | 0.60 | 0.65  |
| L                   | 0.20  | 0.25 | 0.30  |
| L1                  | 0.035 | 0.05 | 0.065 |
| h                   | 0.07  | 0.12 | 0.17  |

All Dimensions in mm



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