

## Features

- Bi-directional ESD protection of one line
- 200Watts peak pulse power ( $t_p = 8/20\mu s$ )
- Working voltage: 5V
- Junction Capacitance: 35pF(Typ)
- Low clamping voltage
- Low leakage current
- IEC 61000-4-2  $\pm 30kV$  contact  $\pm 30kV$  air
- IEC 61000-4-5 (Lightning) 18A ( $8/20\mu s$ )

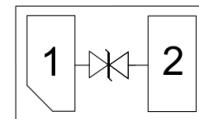
## Applications

- Cellular Handsets and Accessories
- Personal Digital Assistants
- Notebooks and Handhelds
- Portable Instrumentation
- Digital Cameras
- Peripherals
- Audio Players
- Keypads, Side Keys, LCD Displays


## Mechanical Data

- Package:DFN1006-2L
- Molding compound flammability rating: UL 94V-0
- RoHS/WEEE Compliant

## Schematic & PIN Configuration



## Ordering Information

| Part Number | Package    | Marking   | Packing           | Reel Size |
|-------------|------------|---|-------------------|-----------|
| PESD5V0S1BL | DFN1006-2L |  | 10000 Tape & Reel | 7 inches  |

**Absolute Maximum Rating( $T_A=25^{\circ}\text{C}$  unless otherwise Specified)**

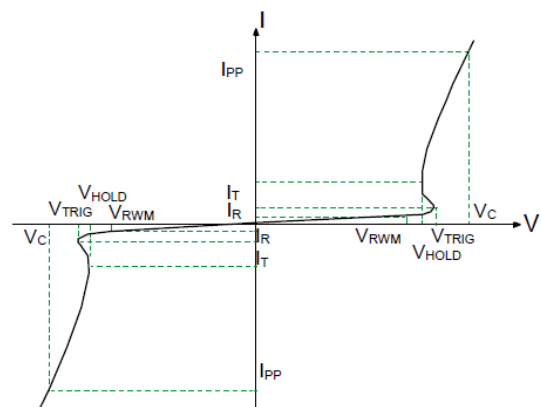
| Parameter  | Symbol | Value                | Unit               |
|--|--------|----------------------|--------------------|
| Peak Pulse Power (8/20 $\mu\text{s}$ )                         | Ppk    | 200                  | W                  |
| Peak Pulse Current (8/20 $\mu\text{s}$ )                       | IPP    | 18                   | A                  |
| ESD per IEC 61000-4-2 (Air)<br>ESD per IEC 61000-4-2 (Contact) | VESD   | $\pm 30$<br>$\pm 30$ | kV                 |
| Operating Temperature Range                                    | TJ     | -55 to +125          | $^{\circ}\text{C}$ |
| Storage Temperature Range                                      | Tstg   | -55 to +150          | $^{\circ}\text{C}$ |

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

| Parameter               | Symbol | Test Condition     | Min | Typ | Max | Unit          |
|-------------------------|--------|--------------------|-----|-----|-----|---------------|
| Reverse Working Voltage | VRWM   |                    |     |     | 5   | V             |
| Breakdown Voltage       | VBR    | $I_T = 1\text{mA}$ | 6   | 6.4 |     | V             |
| Reverse Leakage Current | IR     | VRWM = 5V          |     | 0.1 | 0.5 | $\mu\text{A}$ |
| Clamping Voltage        | VC     | IPP=1A;tp=8/20us   |     | 7   | 9   | V             |
| Clamping Voltage        | VC     | IPP=18A;tp=8/20us  |     | 9   | 12  | V             |
| Junction Capacitance    | CJ     | VR=0V; f=1MHz      |     | 35  | 55  | pF            |

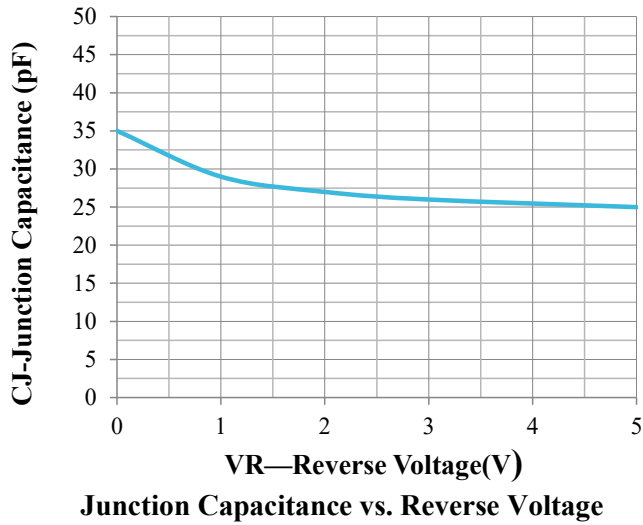
**Electrical Parameters ( $T_A = 25^{\circ}\text{C}$  unless otherwise noted)**

| Symbol | Parameter                          |
|--------|------------------------------------|
| $I_T$  | Test Current                       |
| IPP    | Maximum Reverse Peak Pulse Current |
| Vc     | Clamping Voltage @Ic               |

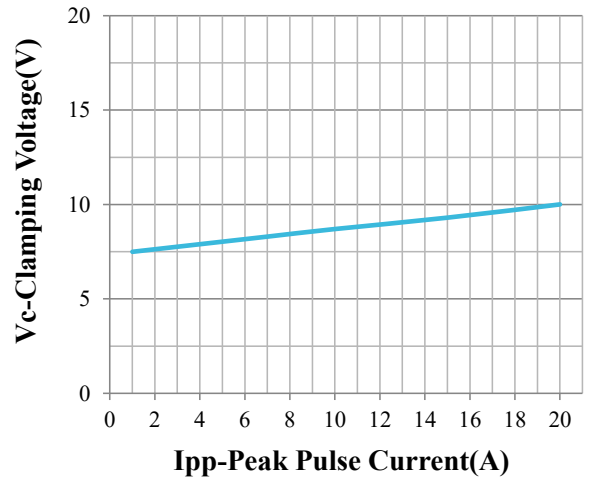




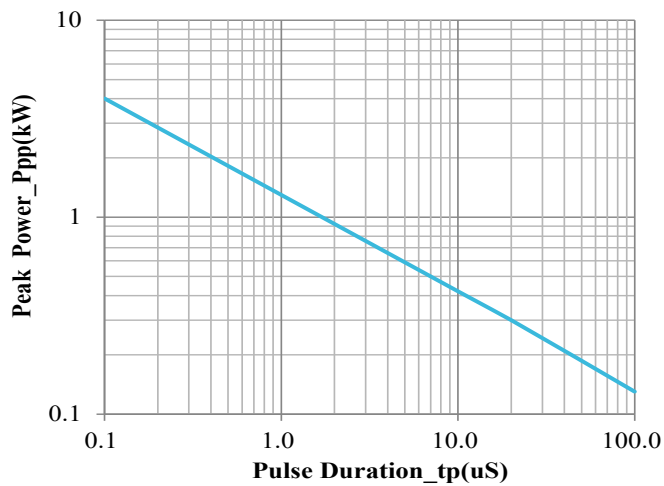
Typical Characteristics(T<sub>A</sub>=25°C unless otherwise Specified)



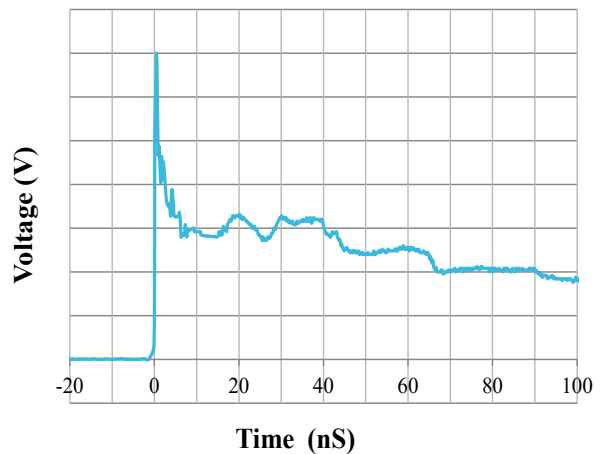
Junction Capacitance vs. Reverse Voltage



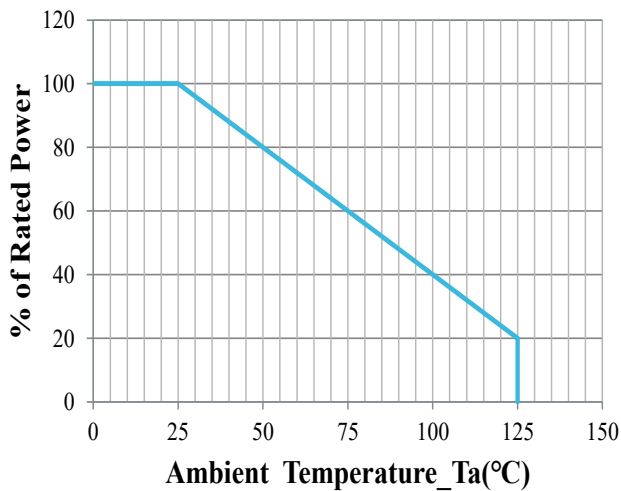
Clamping Voltage vs. Peak Pulse Current



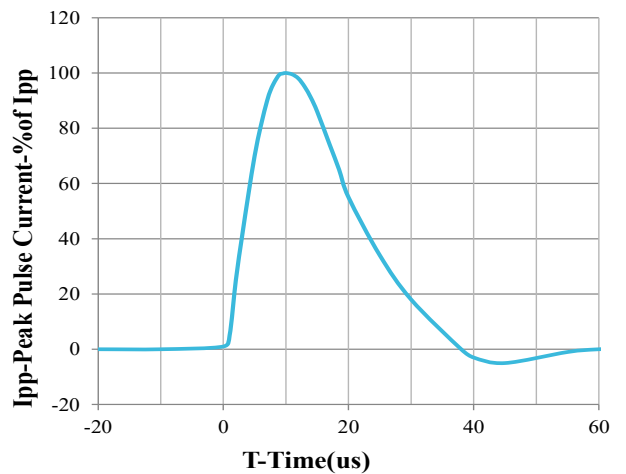
Peak Pulse Power vs. Pulse Time



IEC61000-4-2 Pulse Waveform



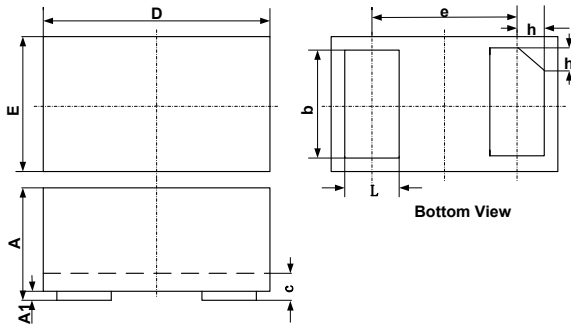
Power Derating Curve



8 X 20us Pulse Waveform



Outline Drawing – DFN1006-2L



| SYM | DIMENSIONS  |      |      |           |       |       |
|-----|-------------|------|------|-----------|-------|-------|
|     | MILLIMETERS |      |      | INCHES    |       |       |
|     | MIN         | NOM  | MAX  | MIN       | NOM   | MAX   |
| A   | 0.45        | 0.50 | 0.55 | 0.018     | 0.020 | 0.022 |
| A1  | 0.00        | 0.02 | 0.05 | 0.000     | 0.001 | 0.002 |
| b   | 0.45        | 0.50 | 0.55 | 0.018     | 0.020 | 0.022 |
| c   | 0.12        | 0.15 | 0.18 | 0.005     | 0.006 | 0.007 |
| D   | 0.95        | 1.00 | 1.05 | 0.037     | 0.039 | 0.041 |
| e   | 0.65 BSC    |      |      | 0.026 BSC |       |       |
| E   | 0.55        | 0.60 | 0.65 | 0.022     | 0.024 | 0.026 |
| L   | 0.20        | 0.25 | 0.30 | 0.008     | 0.010 | 0.012 |
| h   | 0.07        | 0.12 | 0.17 | 0.003     | 0.005 | 0.007 |

## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [ESD Suppressors / TVS Diodes](#) category:*

*Click to view products by [DOWO](#) manufacturer:*

Other Similar products are found below :

[60KS200C](#) [D18V0L1B2LP-7B](#) [D5V0F4U5P5-7](#) [NTE4902](#) [P4KE27CA](#) [P6KE11CA](#) [P6KE8.2A](#) [JANTX1N6053A](#) [SA60CA](#) [SA64CA](#)  
[SMBJ12CATR](#) [SMBJ33CATR](#) [SMBJ6.5A](#) [SMBJ8.0A](#) [ESD101-B1-02ELS E6327](#) [ESD112-B1-02EL E6327](#) [ESD7451N2T5G](#) [19180-510](#)  
[CPDT-5V0USP-HF](#) [3.0SMCJ33CA-F](#) [3.0SMCJ36A-F](#) [HSPC16701B02TP](#) [JANTX1N6126A](#) [D3V3Q1B2DLP3-7](#) [D55V0M1B2WS-7](#)  
[SCM1293A-04SO](#) [ESD200-B1-CSP0201 E6327](#) [SM12-7](#) [CEN955 W/DATA](#) [VESD12A1A-HD1-GS08](#) [CPDQC5V0-HF](#) [D1213A-01LP4-7B](#)  
[ESD101-B1-02EL E6327](#) [AOZ8808DI-03](#) [5KP15A](#) [5KP48A](#) [5KP90A](#) [ESD3V3D7-TP](#) [15KPA36A-LF](#) [P4KE56CA](#) [P4KE68A](#)  
[P4KE91CATR](#) [P6KE120A](#) [P6KE13CA](#) [P6KE43CA](#) [P6KE6.8CA](#) [P6KE8.2](#) [P6SMBJ20CA](#) [JANTX1N6072A](#) [SR2835ESKG](#)