# Transient Voltage Suppressors for ESD Protection

## SE15N6T01GK

### Features

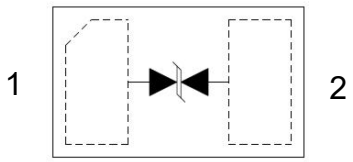
- IEC 61000-4-2 (ESD) ±30kV (air), ±30kV(contact)
- IEC 61000-4-4 (EFT) 40A (5/50ns)
- Protects one I/O line (bidirectional)
- Working voltage: 15V
- Low leakage current
- ROHS compliant

**DFN1006-2L**

### Applications

- Cell Phone Handsets and Accessories
- Microprocessor based equipment
- Personal Digital Assistants (PDA's)
- Notebooks, Desktops, and Servers
- Portable Instrumentation
- Networking and Telecom
- Serial and Parallel Ports
- Peripherals

### Pin Configuration




(Top View)

### Mechanical Characteristics

- DFN1006-2L Package
- Flammability Rating: UL 94V-0
- Packaging: Tape and Reel
- Quantity Per Reel : 10,000pcs
- Reel Size : 7 inch

### Absolute Maximum Ratings

| Symbol | Parameter | Value | Units |
|---|---|---|---|
| $V_{ESD}$ | **ESD per IEC 61000-4-2 (Air)** | ±30 | kV |
| | **ESD per IEC 61000-4-2 (Contact)** | ±30 | |
| $T_{OP}$ | **Operating Temperature** | -55 ~ +150 | ℃ |
| $T_{STG}$ | **Storage Temperature** | -55 ~ +150 | ℃ |
| $T_L$ | **Lead Soldering Temperature** | 260 (10 sec.) | ℃ |



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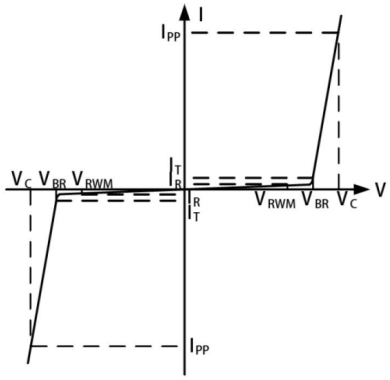
### Electrical Characteristics ($T_A$ = 25℃, unless otherwise noted)

| Parameter | Symbol | Conditions | Min. | Typ. | Max. | Units |
|---|---|---|---|---|---|---|
| Reverse maximum working voltage | $V_{RWM}$ | -- | -- | -- | 15 | V |
| Reverse breakdown voltage | $V_{BR}$ | $I_T$ = 1mA | 17.0 | -- | 19.5 | V |
| Reverse leakage current | $I_R$ | $V_{RWM}$ = 15V | -- | -- | 0.1 | μA |
| Clamping Voltage | $V_C$ | $I_{PP}$ = 1A , $t_P$ = 8/20μs | -- | 22 | -- | V |
| Clamping Voltage | $V_C$ | $I_{PP}$ = 8A , $t_P$ = 8/20μs | -- | 31 | -- | V |
| Junction Capacitance | $C_J$ | $V_R$ = 0V, f = 1MHz | -- | 20 | -- | pF |

### I-V Curve Characteristics

| Symbol | Parameter |
|---|---|
| $I_{PP}$ | Maximum Reverse Peak Pulse Current |
| $V_C$ | Clamping Voltage @ $I_{PP}$ |
| $V_{RWM}$ | Working Peak Reverse Voltage |
| $I_R$ | Maximum Reverse Leakage Current @ $V_{RWM}$ |
| $V_{BR}$ | Breakdown Voltage @ $I_T$ |



Bi-Directional TVS

### Typical Characteristic Curves ($T_A$ = 25℃, unless otherwise noted)

**Fig1. Power Derating Curve**

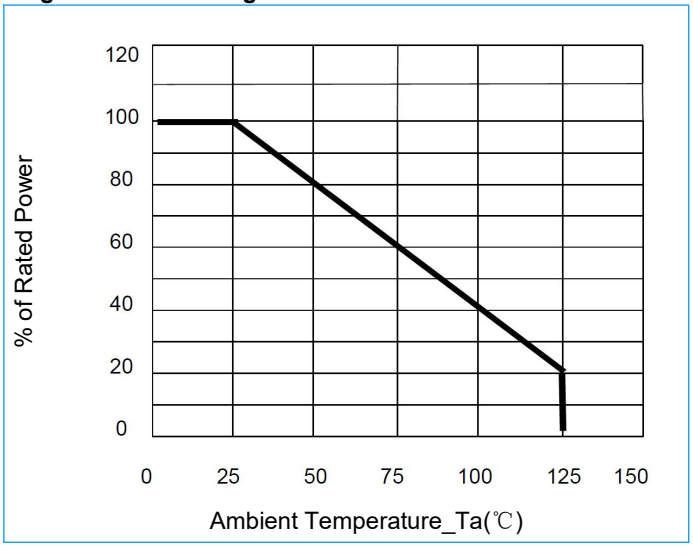
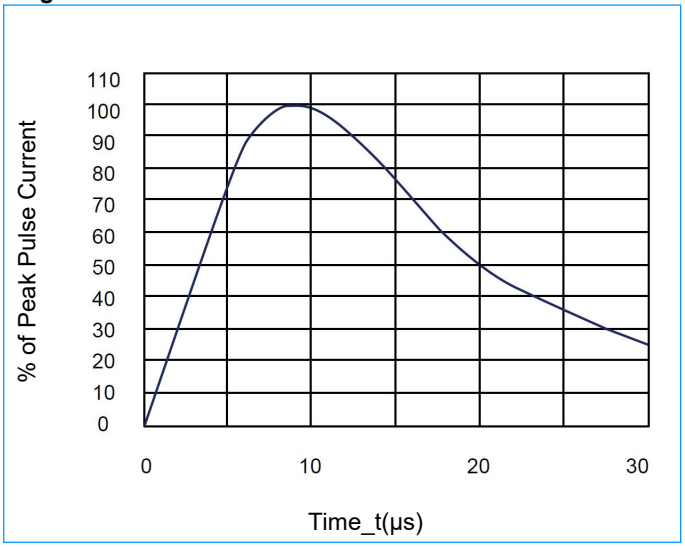



**Fig2. 8/20 μs Pulse Waveform**



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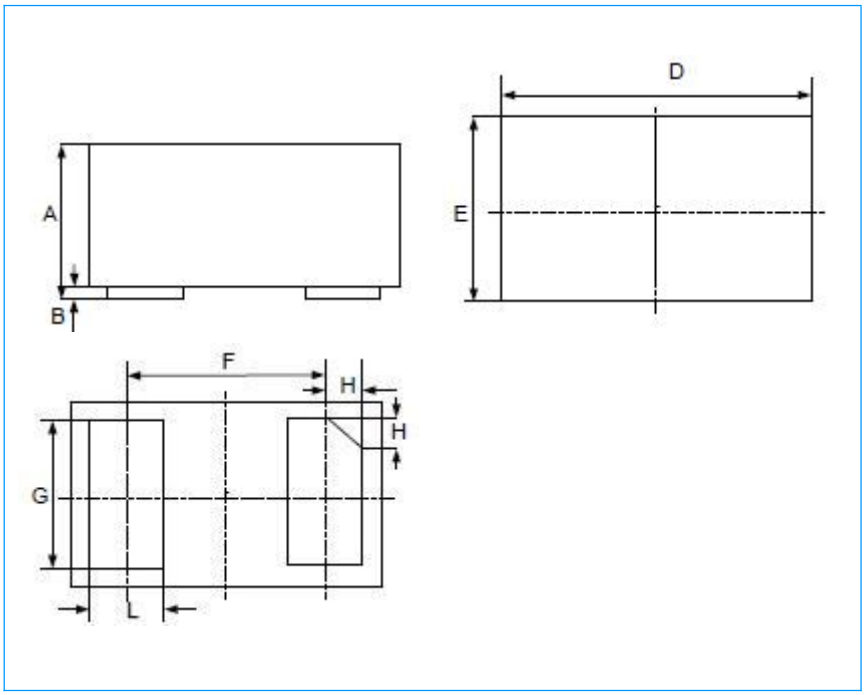
### DFN1006-2L Package Outline & Dimensions (Unit：mm)




| Symbol | Millimeters | |
|---|---|---|
| | Min. | Max. |
| A | 0.34 | 0.55 |
| B | 0.00 | 0.05 |
| D | 0.95 | 1.08 |
| E | 0.55 | 0.68 |
| F | 0.65 (Typ.) | |
| G | 0.40 | 0.60 |
| H | 0.07 | 0.17 |
| L | 0.20 | 0.30 |

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