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PRODUCT DATASHEET

Electro-Static Discharge

JEN1006-7V-C ESD

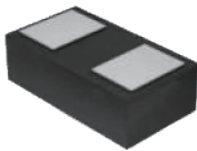
### Features

- Ultra small package: 1.0x0.6x0.37mm(DFN1006)
- Capacitance: 15pF(typ.)
- Reverse Working Voltage: 7V
- IEC 61000-4-2 (ESD Air): ±30KV
- IEC 61000-4-2 (ESD Contact): ±30KV
- IEC 61000-4-5 (Lightning 8/20μs): 8.0A

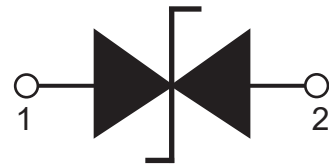
### Applications

- Cell phone handsets and accessories
- Notebooks, desktops, and servers
- Portable instrumentation
- Cordless phones
- Digital cameras
- Peripherals

### Pin Description



### Schematic Diagram



### Limiting Values(T<sub>A</sub> = 25 °C, unless otherwise specified)

Symbol	Parameter	Conditions	Min	Max	Unit
V <sub>ESD</sub>	Electrostatic Discharge Voltage	IEC 61000-4-2;Contact Discharge	-	±30	kV
		IEC 61000-4-2;Air Discharge	-	±30	kV
P <sub>PP</sub>	Peak Pulse Power	t <sub>p</sub> =8/20μs	-	80	W
I <sub>PPM</sub>	Rated Peak Pulse Current	t <sub>p</sub> =8/20μs	-	8.0	A
T <sub>A</sub>	Ambient Temperature Range	-	-55	150	°C
T <sub>stg</sub>	Storage Temperature Range	-	-55	150	°C

### Electrical Characteristics(T<sub>A</sub> = 25 °C, unless otherwise specified)

Symbol	Parameter	Conditions	Min	Typ.	Max	Unit
V <sub>RWM</sub>	Reverse Working Voltage	T <sub>A</sub> =25°C	-	-	7.0	V
V <sub>BR</sub>	Breakdown Voltage	I <sub>R</sub> =1mA;T <sub>A</sub> =25°C	7.5	8.0	8.6	V
I <sub>R</sub>	Reverse Leakage Current	V <sub>RWM</sub> =7V;T <sub>A</sub> =25°C	-	-	0.1	μA
V <sub>C</sub>	Clamping Voltage	I <sub>PP</sub> =1A,t <sub>p</sub> =8/20μs	-	-	8	V
		I <sub>PP</sub> =8A,t <sub>p</sub> =8/20μs	-	-	10	V
C <sub>J</sub>	Junction Capacitance	V <sub>R</sub> =0V,f=1MHZ	-	15	20	pF

Typical Characteristics

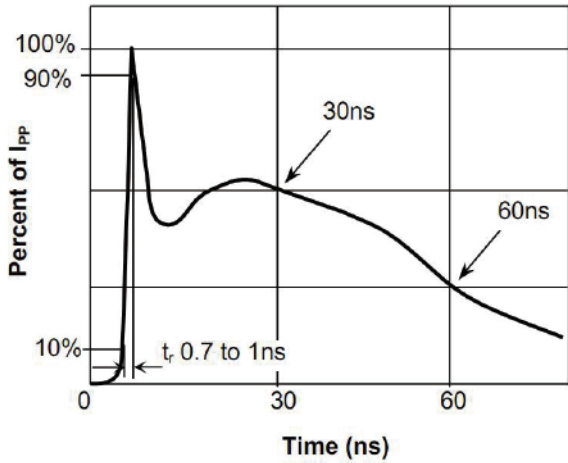


Fig.1 Pulse Waveform-ESD (IEC61000-4-2)

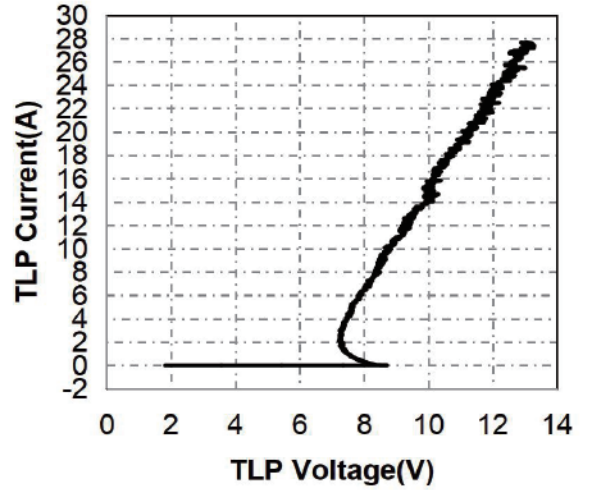


Fig.2 Transmission Line Pulse (TLP)

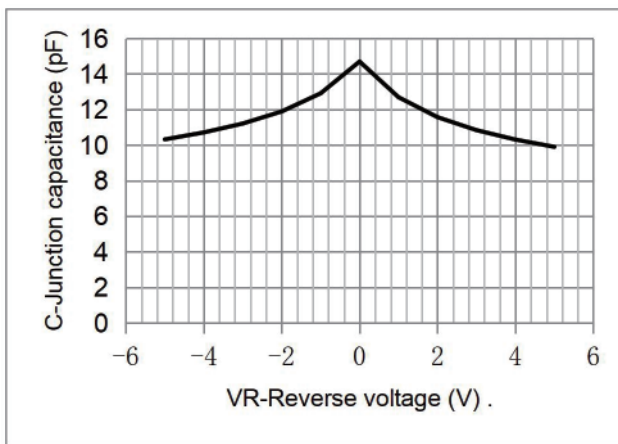


Fig.3 Capacitance vs. Reverse Voltage

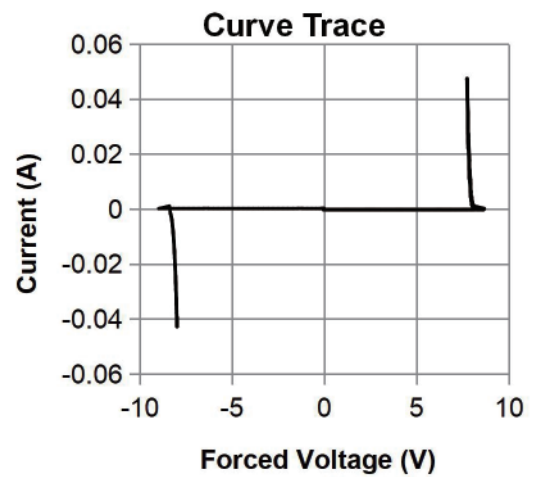
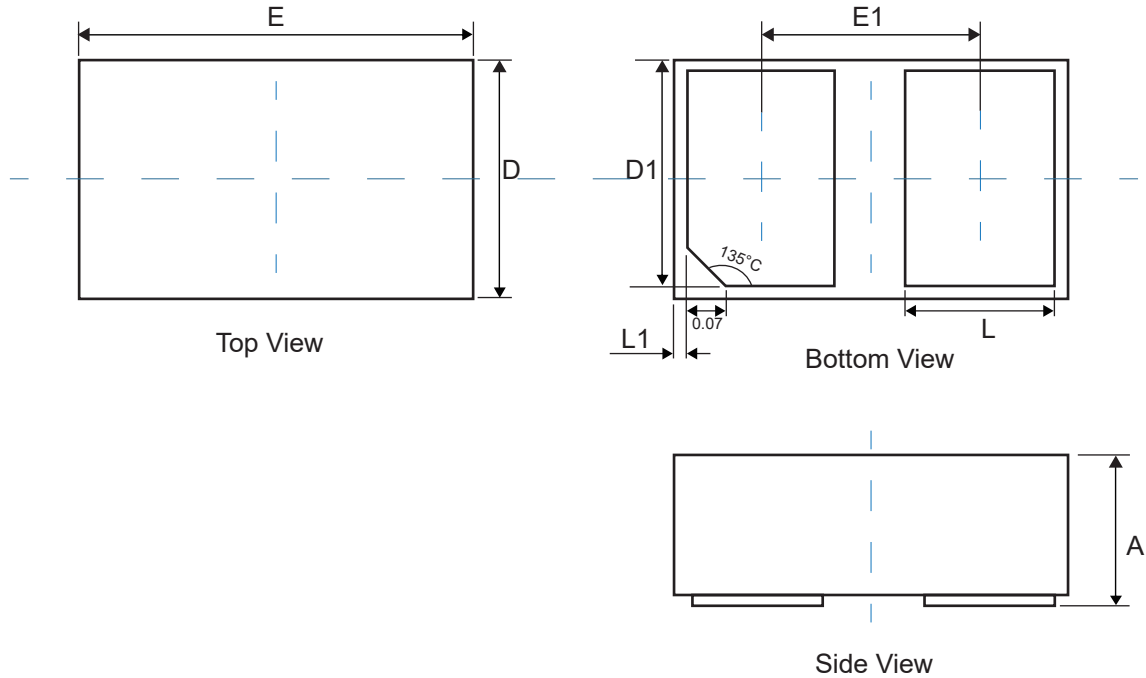


Fig.4 IV Curve (Forward Voltage)

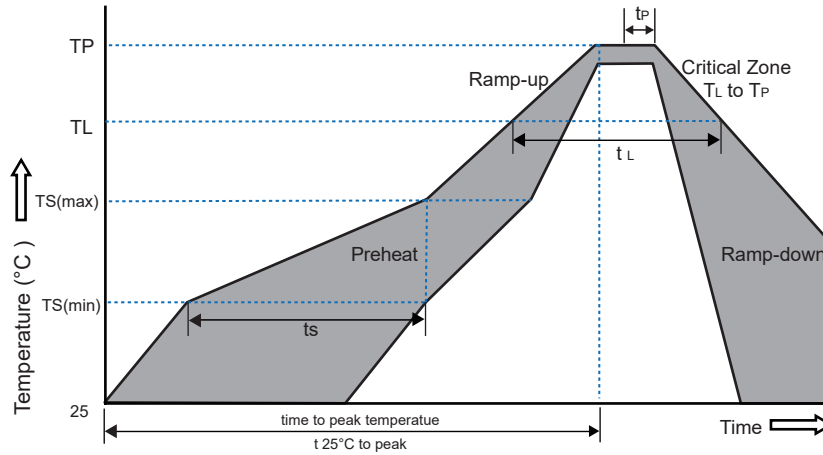
**Physical Dimensions(mm.)**


Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.350	0.450	0.014	0.018
D	0.550	0.650	0.022	0.026
E	0.950	1.050	0.037	0.041
D1	0.420	0.520	0.017	0.020
E1	0.550	0.650	0.022	0.026
L	0.270	0.370	0.011	0.015
L1	0.000	0.100	0.000	0.004

**Packaging Quantity**

Part Number	Size(mm)	Delivery Form	Delivery Quantity
JEN1006-7V-C	1.00x0.60x0.37	7"T&R	10,000

### Soldering Parameters



Reflow Condition		Pb-Free Assembly
Pre-heat	-Temperature Min( $T_{s(min)}$ )	+150°C
	-Temperature Max( $T_{s(max)}$ )	+200°C
	-Time(Min to Max)( $t_s$ )	60~180 secs.
Average ramp up rate (Liquid us Temp( $T_L$ ) to peak)		3°C/sec. Max
Ts(max) to $T_L$ - Ramp-up Rate		3°C/sec. Max
Reflow	-Temperature( $T_L$ )(Liquid us)	+217°C
	-Temperature ( $t_L$ )	60~150 secs.
Peak Temp ( $T_p$ )		+260(+0/-5)°C
Time within 5°C of actual Peak Temp ( $t_p$ )		30 secs. Max
Ramp-down Rate		6°C/sec. Max
xTime 25°C to Peak Temp (TP)		8 min. Max
Do not exceed		+260°C

### Part Number System

## JE N1006 - 7V - C

