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PRODUCT DATASHEET

Electro-Static Discharge

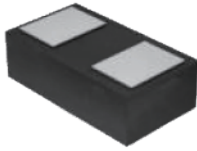
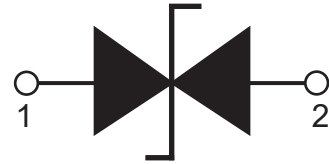
JEN1006-5V-LG ESD

Features

- Ultra small package: 1.0x0.6x0.37mm(DFN1006)
- Capacitance: 3.5pF(typ.)
- Reverse Working Voltage: 5V
- IEC 61000-4-2 (ESD Air): ±25KV
- IEC 61000-4-2 (ESD Contact): ±20KV
- IEC 61000-4-5 (Lightning 8/20μs): 2.5A

Applications

- Cellular phones
- Portable devices
- Digital cameras
- Power supplies

Pin Description

Schematic Diagram

Limiting Values(T_A = 25 °C, unless otherwise specified)

Symbol	Parameter	Conditions	Min	Max	Unit
V _{ESD}	Electrostatic Discharge Voltage	IEC 61000-4-2;Contact Discharge	-	±20	kV
		IEC 61000-4-2;Air Discharge	-	±25	kV
P _{PP}	Peak Pulse Power	t _p =8/20μs	-	40	W
I _{PPM}	Rated Peak Pulse Current	t _p =8/20μs	-	2.5	A
T _A	Ambient Temperature Range	-	-55	150	°C
T _{stg}	Storage Temperature Range	-	-55	150	°C

Electrical Characteristics(T_A = 25 °C, unless otherwise specified)

Symbol	Parameter	Conditions	Min	Typ.	Max	Unit
V _{RWM}	Reverse Working Voltage	T _A =25°C	-	-	5.0	V
V _{BR}	Breakdown Voltage	I _R =1mA;T _A =25°C	5.6	-	9.0	V
I _R	Reverse Leakage Current	V _{RWM} =5V;T _A =25°C	-	-	100	nA
V _C	Clamping Voltage	I _{PP} =1A,t _p =8/20μs	-	-	13	V
		I _{PP} =2.5A,t _p =8/20μs	-	-	16	V
C _J	Junction Capacitance	V _R =0V,f=1 MHz	-	3.5	4.0	pF

Typical Characteristics

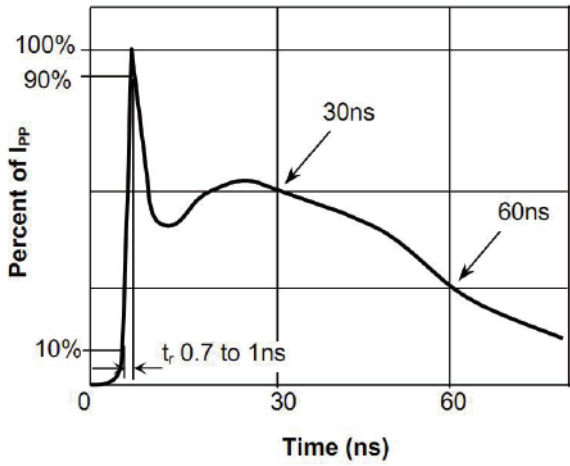


Fig.1 Pulse Waveform-ESD (IEC61000-4-2)

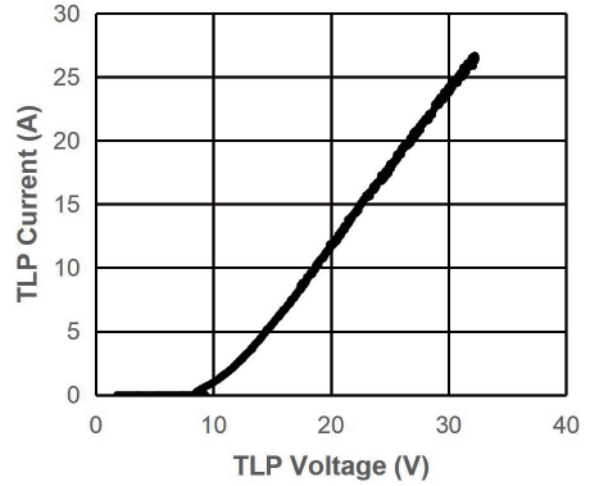


Fig.2 Transmission Line Pulse (TLP)

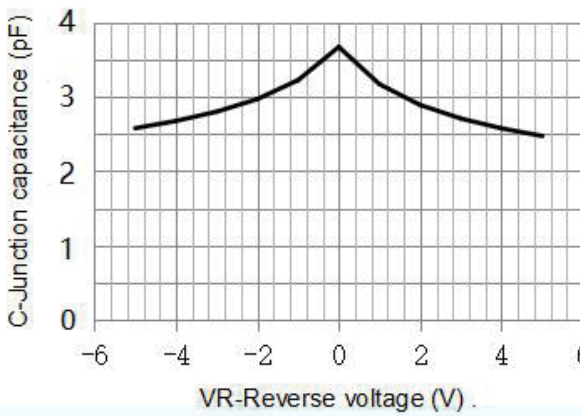


Fig.3 V-I Characteristics for Bidirectional Diode

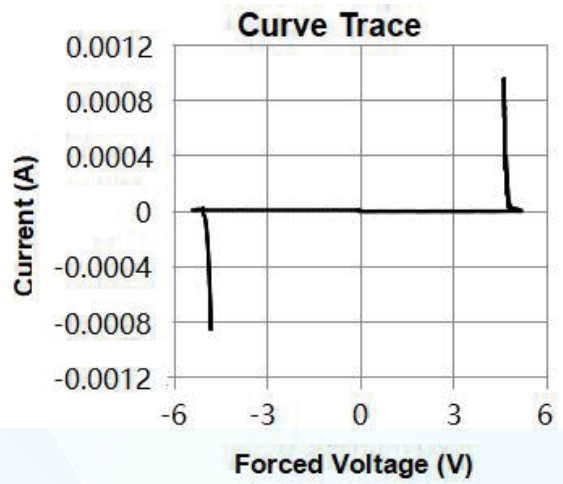
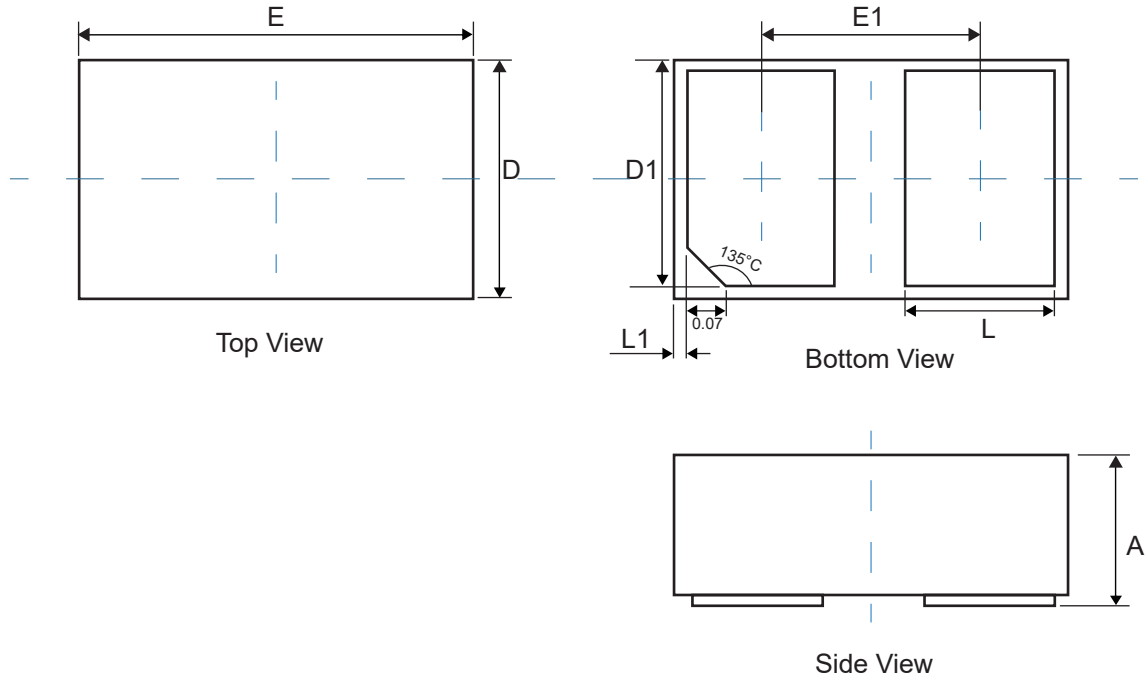


Fig.4 IV Curve

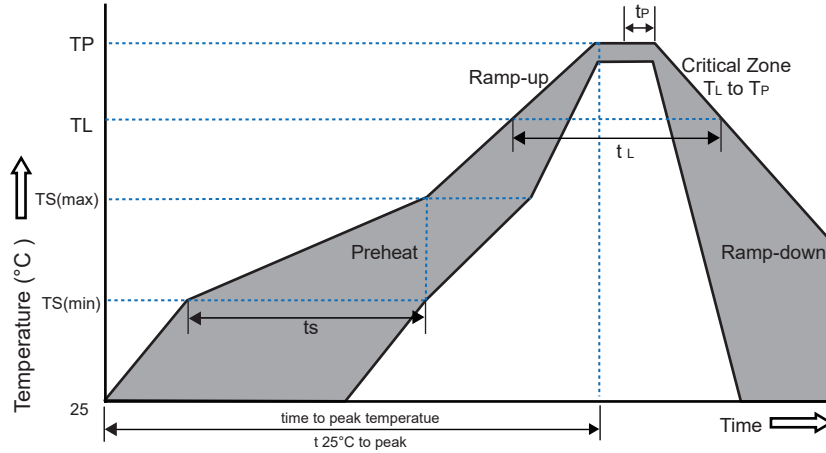
Physical Dimensions(mm.)


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
JEN1006-5V-LC	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 - 5V - L C

