Low Capacitance TVS Protection

Features

- Protects one data, control or power line
- Low capacitance: 12pF (Typical)
- Low clamping voltage

Applications

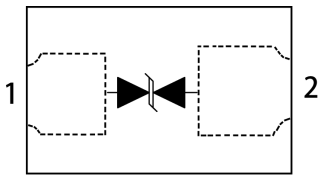
- Portable Electronics
- Desktops, Servers and Notebooks
- Cellular Phones
- MP3 Ports
- Digital Camera Ports
- Subscriber Identity Module (SIM) card

Mechanical Characteristics

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

FeatCircuit Diagram

Pin Configuration



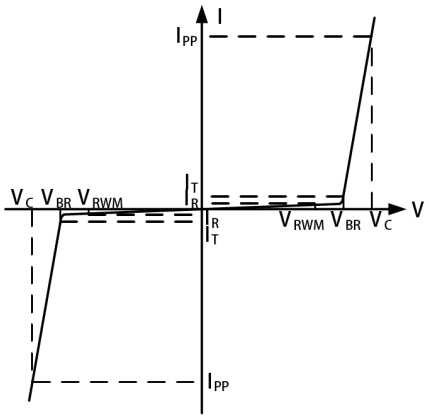
DFN-1006
(Top View)

Absolute Maximum Rating

Symbol	Parameter	Value	Units
V_{ESD}	ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	±30 ±30	kV
T_{OPT}	Operating Temperature	-55/+125	℃
T_{STG}	Storage Temperature	-55/+150	℃

I-V Curve Characteristics

Symbol	Parameter
V_{RWM}	Nominal Reverse Working Voltage
I_R	Reverse Leakage Current @ V_{RWM}
V_{BR}	Reverse Breakdown Voltage @ I_T
I_T	Test Current for Reverse Breakdown
V_C	Clamping Voltage @ I_{PP}
I_{PP}	Maximum Peak Pulse Current
C_{ESD}	Parasitic Capacitance
V_R	Reverse Voltage
f	Small Signal Frequency



Bi-Directional TVS

Low Capacitance TVS Protection

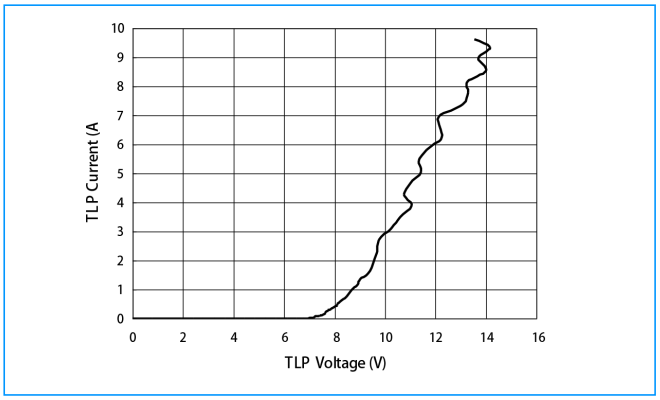
SE03N6S01GZ

Electrical Characteristics (T = 25 ℃)

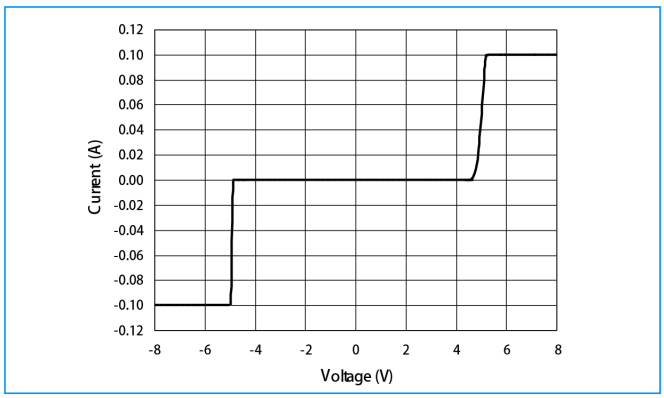
Symbol	Test Condition	Minimum	Typical	Maximum	Units
V_{RWM}	—	—	—	3.3	V
I_R	V_{RWM}= 3.3V, T = 25 C Between I/O_1 and I/O_2	—	—	0.5	μA
V_{BR}	I_T = 1mA Between I/O_1 and I/O_2	3.5	4.1	5.0	V
V_C	I_{PP} = 1A, t_p = 8/20μs Between I/O_1 and I/O_2	—	6.0	—	V
V_C	I_{PP} = 8A, t_p = 8/20μs Between I/O_1 and I/O_2	—	10	—	V
C_{ESD}	V_R = 0V, f = 1MHz Between I/O_1 and I/O_2	—	12	—	pF

Characteristics Curve

TLP Measurement of I/O_1 to I/O_2

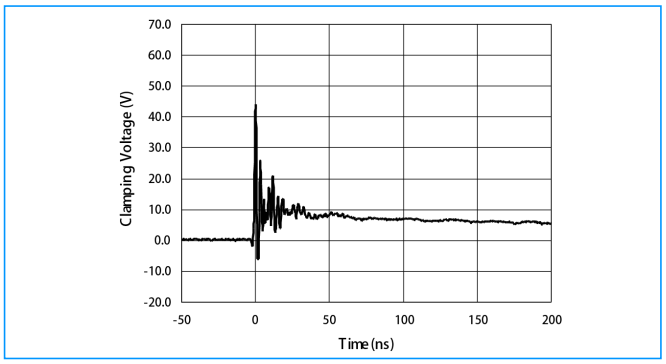


Voltage Sweeping of I/O_1 to I/O_2



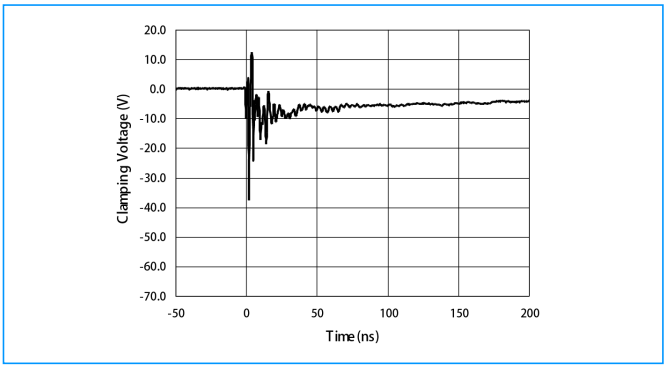
ESD Clamping of I/O_1 to I/O_2

(+8kV Contact per IEC 61000-4-2)



ESD Clamping of I/O_1 to I/O_2

(-8kV Contact per IEC 61000-4-2)



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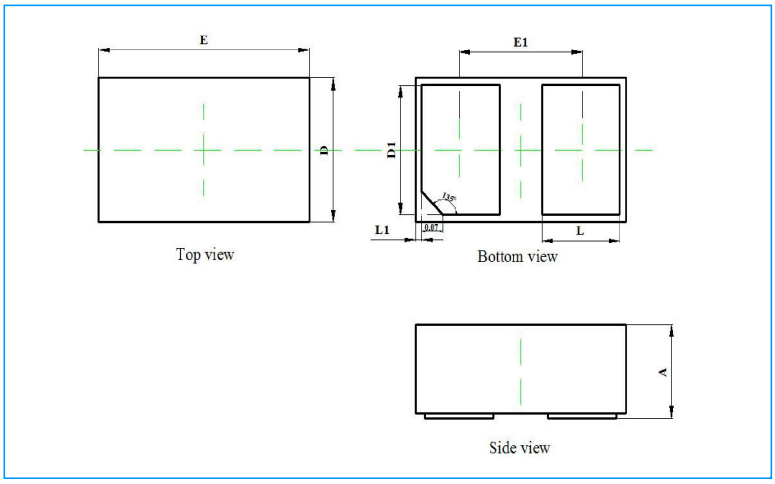
DFN1006-2L Dimensions



Symbol	Millimeter		Inches	
	Min	Max	Min	Max
A	0.450	0.550	0.018	0.021
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