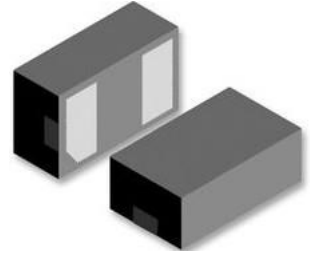


Bidirectional ESD Protection Diode in DFN1006 Package

Feature

- Capacitance: 15pF(typ.)
- Reverse Working Voltage: 5V
- IEC 61000-4-2 (ESD Air): ±25KV
- IEC 61000-4-2 (ESD Contact): ±25KV
- IEC 61000-4-5 (Lightning 8/20μs): 5A

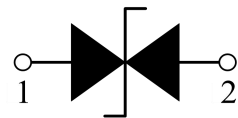


Marking : **DFN1006**

Applications

- Smart Phone and Tablet PC
- TV and Set Top Box
- Wearable Devices
- PDA

Schematic Diagram



Absolute Maximum Ratings (T_A=25°C unless otherwise noted)

Parameter	Symbol	Min	Max	Unit
Peak Pulse Power (TP=8/20μS)	P _{PP}		60	W
Electrostatic Discharge Voltage	IEC61000-4-2; Contact Discharge	V _{ESD}	±25	kV
	IEC61000-4-2; Air Discharge		±25	kV
Peak Pulse Current (TP=8/20μS)	I _{PP}		5	A
Operating temperature	T _J	-55	125	°C
Storage temperature	T _{STG}	-55	150	°C

Electrical Specifications (T_A=25°C unless otherwise noted)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse stand-off Voltage	V _{RWM}	T _A = 25 °C			5.0	V
Reverse Breakdown Voltage	V _{BR}	I _R = 1mA; T _A = 25 °C	5.6	6.5	8.4	V
Reverse Leakage Current	I _R	V _{RWM} = 5V; T _A = 25 °C			0.1	μA
Clamping Voltage	V _C	I _{PP} =1A, t _P =8/20μs			10	V
		I _{PP} =5A, t _P =8/20μs			12	V
Junction Capacitance	C _J	V _R = 0V, f = 1 MHz		15	18	pF

Ratings and Characteristics Curves

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

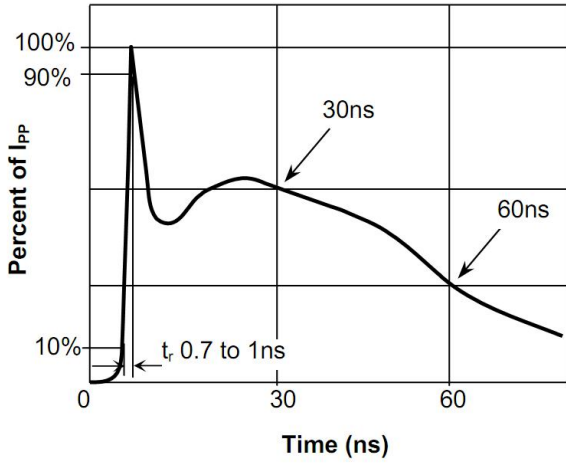


Fig.1 Pulse Waveform-ESD(IEC61000-4-2)

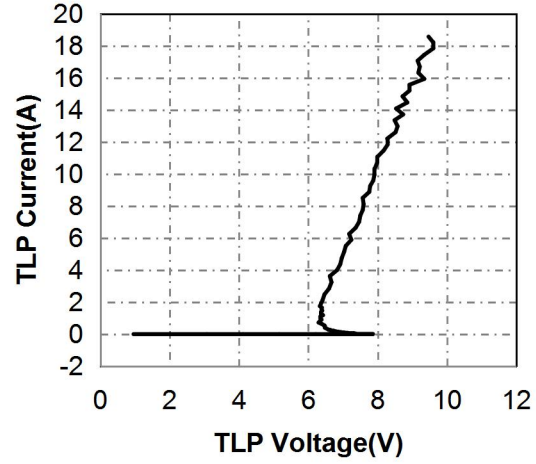


Fig.2 Transmission Line Pulse (TLP)

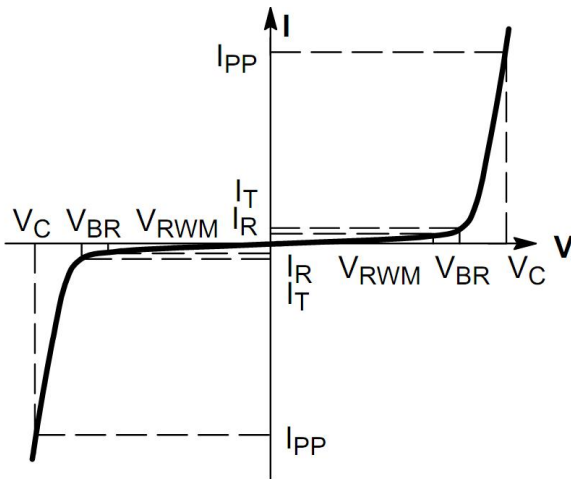


Fig.3 V-I Characteristics for Bidirectional Diode

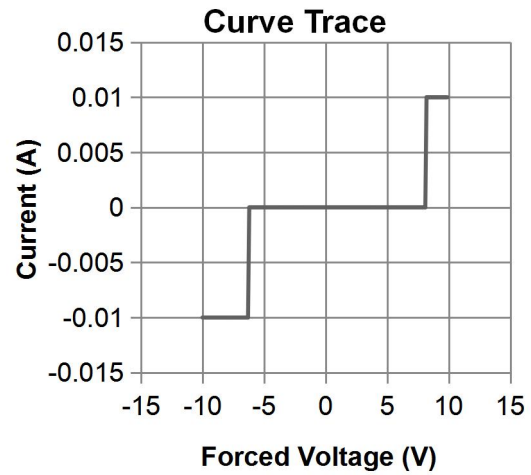


Fig.4 IV Curve

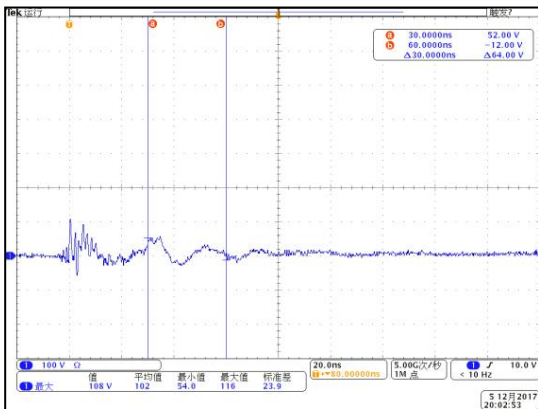


Fig.5 Clamping Voltage at IEC61000-4-2 +8kV Pulse Waveform

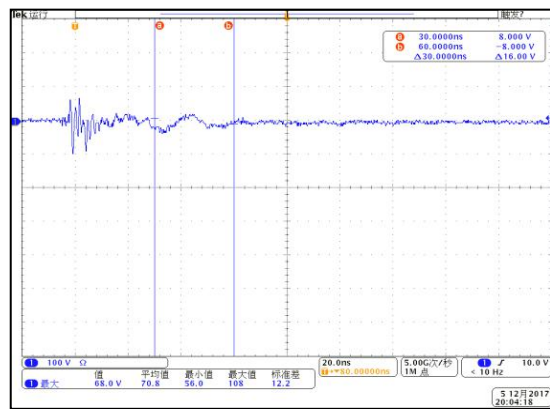
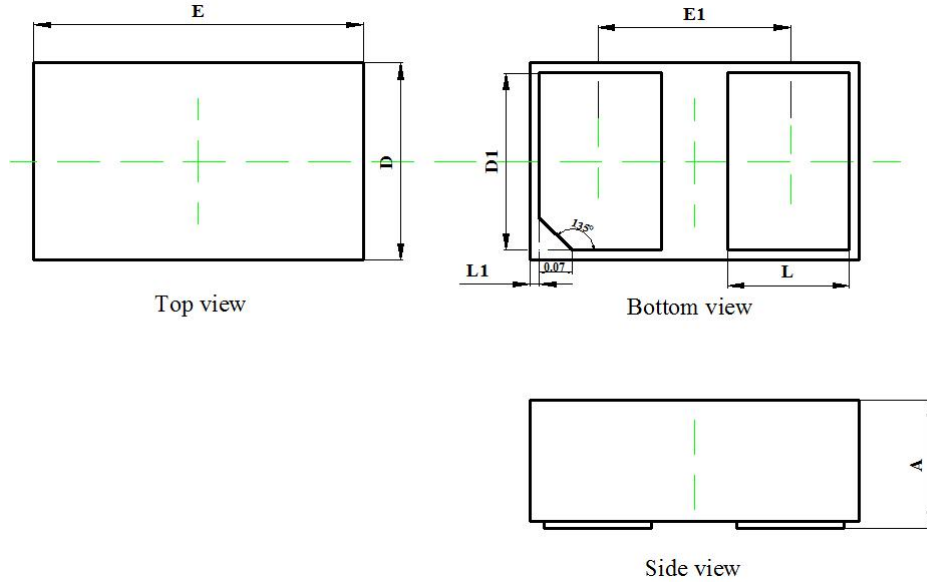


Fig.6 Clamping Voltage at IEC61000-4-2 -8kV Pulse Waveform

Package Outline Dimensions

in inches (millimeters)



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

Revision History

Document Version	Date of release	Description of changes
Rev.A	2019.08.30	Firstissue

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