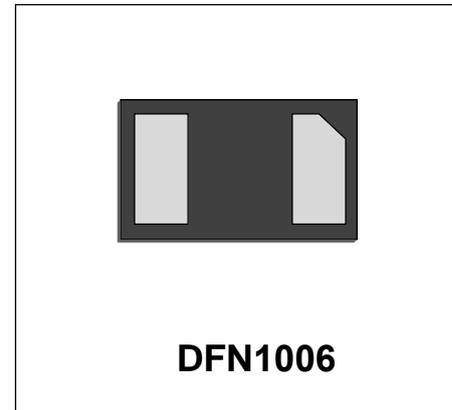


Features

- 80Watts peak pulse power ($t_p = 8/20\mu s$)
- Tiny DFN1006 package
- Bidirectional configurations
- Solid-state silicon-avalanche technology
- Low clamping voltage
- IEC 61000-4-2 $\pm 25kV$ contact $\pm 25kV$ air
- IEC 61000-4-5 (Lightning) 8A ($8/20\mu s$)



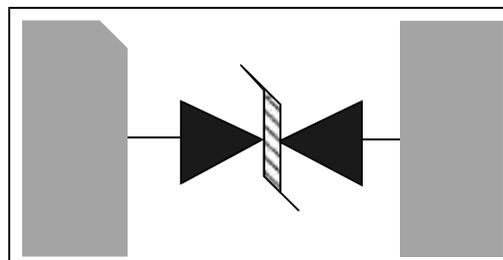
Mechanical Characteristics

- DFN1006 package
- Molding compound flammability rating: UL 94V-0
- Packaging: Tape and Reel
- RoHS/WEEE Compliant

Applications

- Cell Phone Handsets and Accessories
- Microprocessor based equipment
- Personal Digital Assistants (PDA's)
- Notebooks, Desktops, and Servers
- Portable Instrumentation

Schematic & PIN Configuration



DFN1006

Absolute Maximum Rating

Rating	Symbol	Value	Units
Peak Pulse Power ($t_p=8/20\mu s$)	P_{PP}	80	Watts
Peak Pulse Current ($t_p=8/20\mu s$) (note1)	I_{PP}	8	A
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	V_{ESD}	25 25	kV
Lead Soldering Temperature	T_L	260(10seconds)	°C
Junction Temperature	T_J	-55 to + 125	°C
Storage Temperature	T_{stg}	-55 to + 150	°C

Electrical Characteristics

Parameter	Symbol	Conditions	Min	Typical	Max	Units
Reverse Stand-Off Voltage	V_{RWM}				5.0	V
Reverse Breakdown Voltage	V_{BR}	$I_T=1mA$	5.6	6.5	8.4	V
Reverse Leakage Current	I_R	$V_{RWM}=5V, T=25^\circ C$			0.1	μA
Peak Pulse Current	I_{PP}	$t_p=8/20\mu s$			8	A
Junction Capacitance	C_j	$V_R = 0V, f = 1MHz$		15	18	pF
Clamping Voltage ²⁾	V_C	$I_{PP}=8A, t_p=8/20\mu s$			10	V

Typical Characteristics

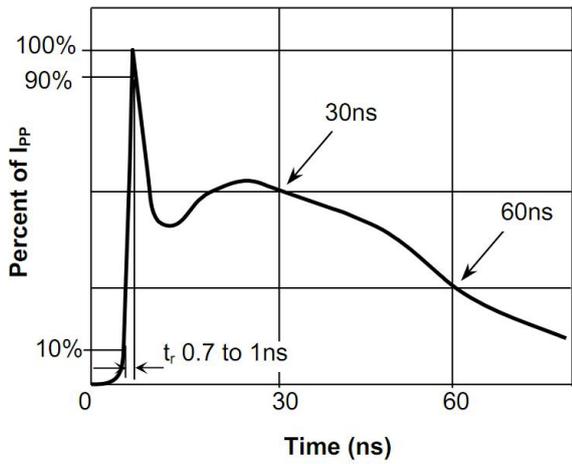


Fig.1 Pulse Waveform-ESD(IEC61000-4-2)

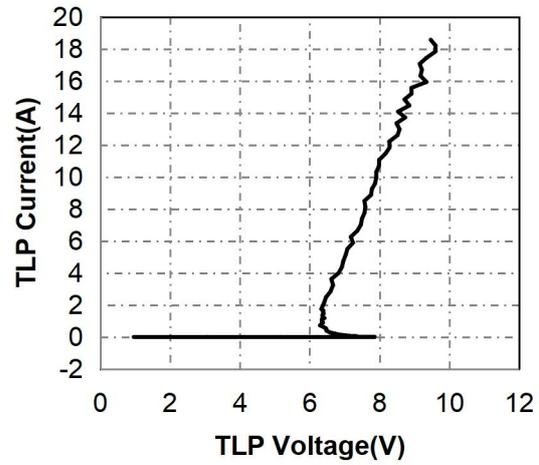


Fig.2 Transmission Line Pulse (TLP)

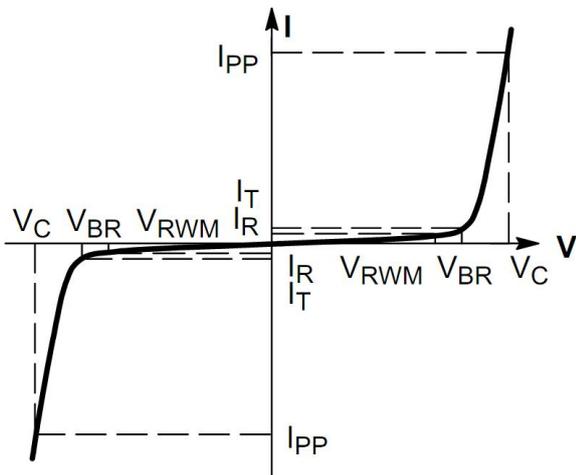


Fig.3 V-I Characteristics for Bidirectional Diode

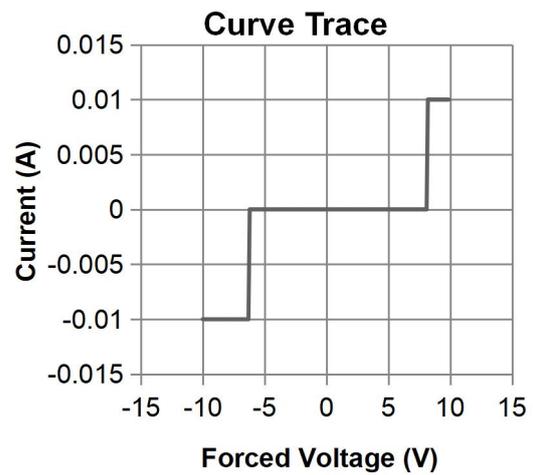


Fig.4 IV Curve

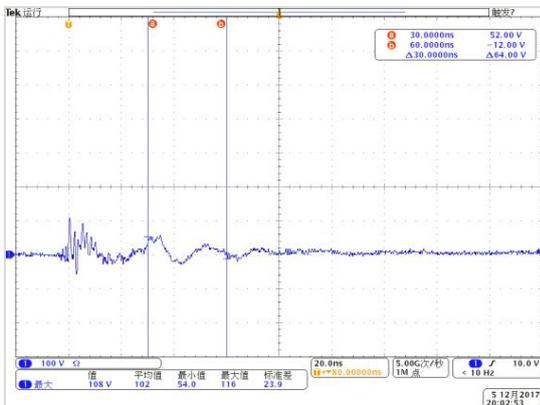


Fig.5 Clamping Voltage at IEC61000-4-2 +8kV Pulse Waveform

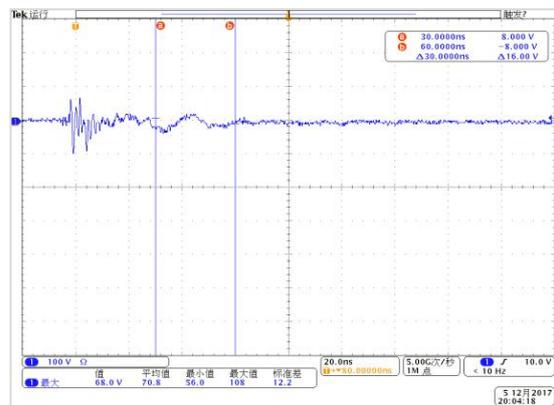
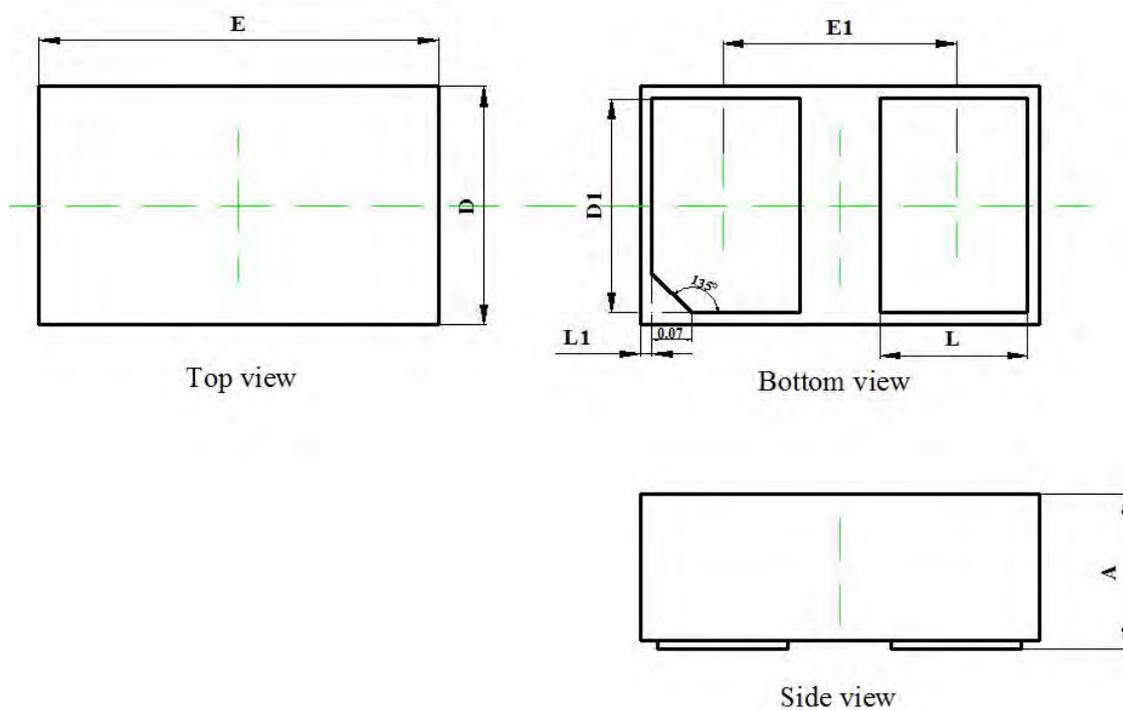


Fig.6 Clamping Voltage at IEC61000-4-2 -8kV Pulse Waveform

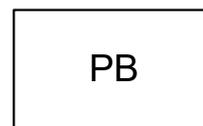
Outline Drawing



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.320	0.420	0.013	0.017
D	0.550	0.650	0.022	0.026
E	0.950	1.050	0.037	0.041
D1	0.450	0.550	0.018	0.022
E1	0.550	0.650	0.022	0.026
L	0.280	0.380	0.011	0.015
L1	0.000	0.100	0.000	0.004

Marking Codes

Part Number	MDFN2C051VZ1
Marking Code	PB



Order Information

Order code	Package	Base qty	Delivery mode
MDFN2C051VZ1	DFN1006	10k	Tape and reel

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