

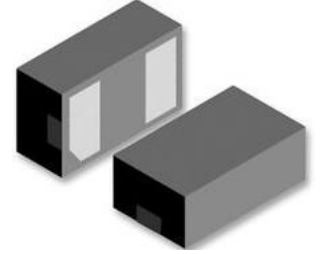
ESD/ Surge Protection Diode

Features

- DFN1006 package
- Low leakage current
- Low clamping voltage
- Protects one I/O port
- Bidirectional configurations
- Protection one data/power line to
- IEC 61000-4-2 ±30kV contact ±30kV air
- IEC 61000-4-4 (EFT) 40A (5/50ns))
- IEC 61000-4-5 (Lightning) 18A (8/20 μs)
- 200Watts peak pulse power (tp = 8/2μ0s)
- RoHS compliant



RoHS
COMPLIANT



Marking : M5

DFN1006

Schematic Diagram



Applications

- PDA
- Notebook
- Cell Phone
- Digital Cameras
- Portable Instrumentation
- Audio and video equipment

Absolute Maximum Ratings (T_A=25°C, Unless otherwise specified.)

Parameter	Symbol	Value	Unit
Peak Pulse Power (TP=8/20μS)	P _{PP}	200	W
Peak Pulse Current (tP = 8/20μS)	I _{PP}	18	A
Junction Temperature	T _J	-55 to +125	°C
Storage temperature	T _{STG}	-55 to +150	°C

Absolute Maximum Ratings (T_A=25°C, Unless otherwise specified.)

Parameter	Symbol	Conditions	Min	Typ.	Max	Unit
Reverse stand-off Voltage	V _{RWM}				5	V
Reverse Breakdown Voltage	V _{BR}	I _T =1mA	6.0	6.8		V
Reverse Leakage Current	I _R	V _R =5V		0.1	0.5	μA
Clamping Voltage	V _C	I _{PP} =18A, T _P =8/20μS			11.5	V
Junction Capacitance	C _J	V _R =0V, f=1MHz		30		pF

Ratings and Characteristics Curves

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

Fig.1 Peak Pulse Power Rating Curve

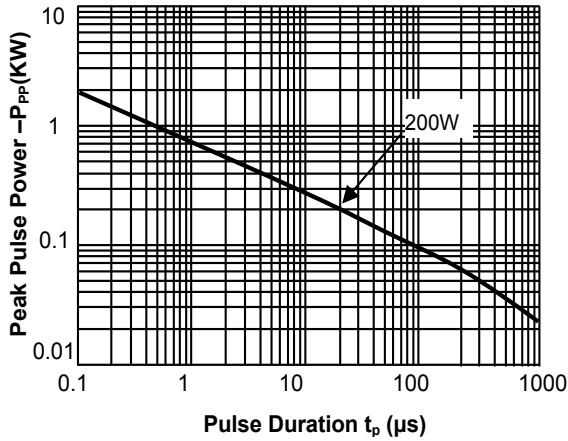


Fig.2 Pulse Derating Curve

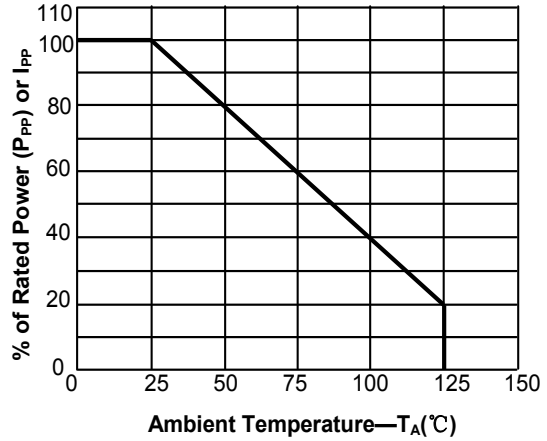


Fig.3 Pulse Waveform-8/20μs

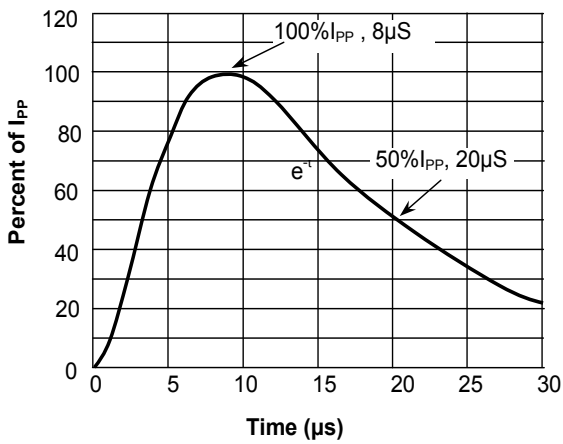
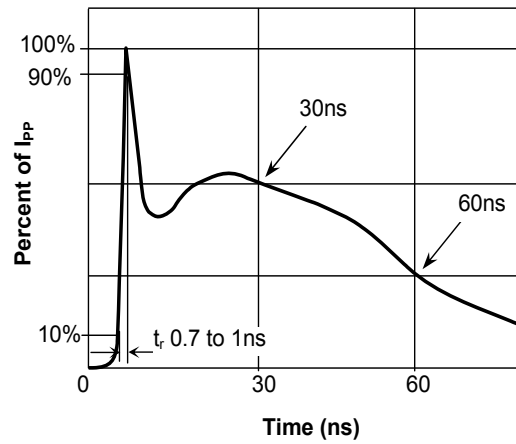
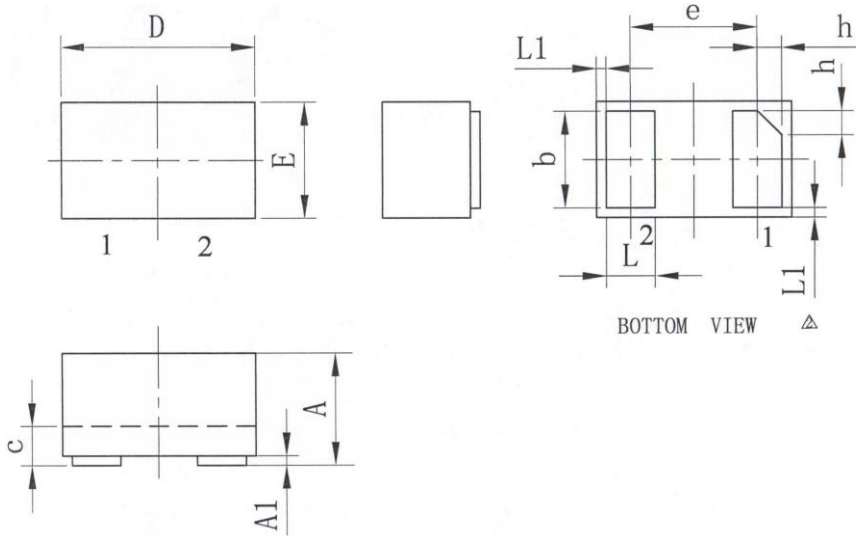


Fig.4 Pulse Waveform-ESD(IEC61000-4-2)



Package Outline Dimensions

millimeters



SYMBOL	MILLIMETER		
	MIN	NOM	MAX
A	0.45	0.50	0.55
A1	0	0.02	0.05
b	0.45	0.50	0.55
c	0.12	0.15	0.18
D	0.95	1.00	1.05
e	0.65BSC		
E	0.55	0.60	0.65
L	0.20	0.25	0.30
L1	0.05REF		
h	0.07	0.12	0.17
载体尺寸 (M11)	20*20		

Revision History

Document Version	Date of release	Description of changes
Rev.A	2017.04.22	First issue

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