



PROTECTION PRODUCTS

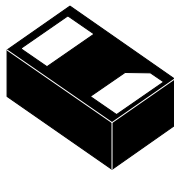
Feature:

- 200W peak pulse power per line (tP = 8/20μs)
- Protects One Bidirectional I/O Line
- Low clamping voltage
- Working voltages : 18V
- Low leakage current
- IEC61000-4-2 (ESD) ±25kV (Air), ±15kV (Contact)
- IEC61000-4-4 (EFT) 40A (5/50ns)
- IEC61000-4-5 (LIGHTING) 4A (8/20μs)
- DFN1006 Package

Application:

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

Circuit Diagram & Pin Configuration:



DFN1006



DEVICE MARKING AND ORDERING INFORMATION

Device	Marking	Shipping
ESD1006N18VB1LH	DF	10000/Tape&Reel



Ordering Information per line@25°C(unless otherwise specified)

Parameter	Symbol	Rating	Unit
Peak pulse power (tp = 8/20μs)	Ppk	200	W
ESD Protection – Contact Discharge, per IEC 61000-4-2	VESD_CONTACT	± 15	kV
ESD Protection – Air Discharge, per IEC 61000-4-2	VESD_AIR	± 25	
Junction temperature	TJ	-55 to +125	°C
Operating temperature	TOP	-55~85	°C
Lead temperature	TL	260	°C
Storage temperature	TSTG	-55~150	°C

Electrical Characteristics per line@25°C(unless otherwise specified)

Characteristic	Symbol	Min	Typ	Max	Unit	Test Conditions
Reverse Working Voltage	VRWM	—	—	18.0	V	
Reverse Breakdown Voltage	VBR	19.5	—	—	V	IR = 1mA,
Reverse Leakage Current	IR	—	—	1	uA	VR = 18V,
Clamping Voltage	VC	—	—	38.0	V	I _{PP} = 1.0A, 8/20μs
Clamping Voltage	VC	—	—	47.0	V	I _{PP} = 4A,8/20μs
Junction Capacitance	CJ	—	22	30	pF	VR = 0V, f = 1MHz

Note: Electrical parameters are only for die, performance may alter after assembly.



Typical Characteristics

Fig 1. 8/20 ms pulse waveform according to IEC 61000-4-5

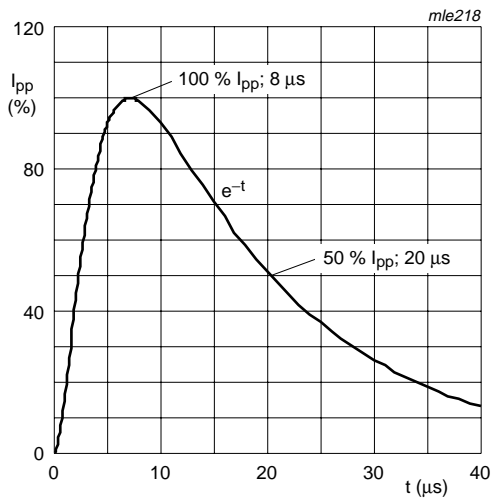
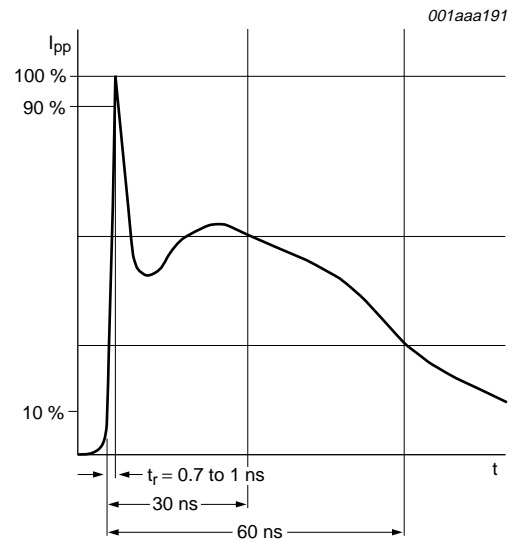
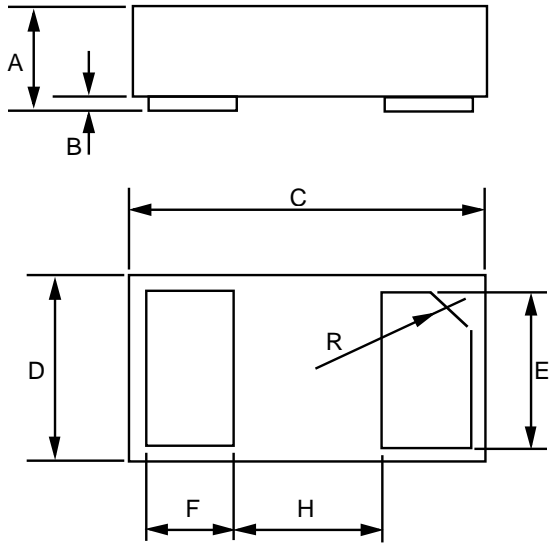


Fig 2. ElectroStatic Discharge (ESD) pulse waveform according to IEC 61000-4-2

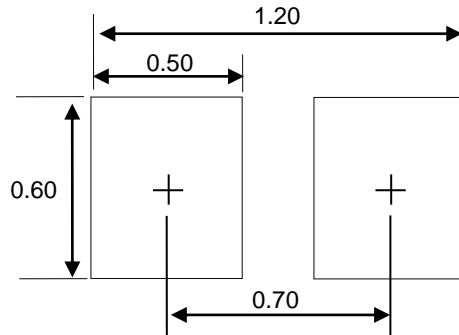




Dimension (DFN1006)

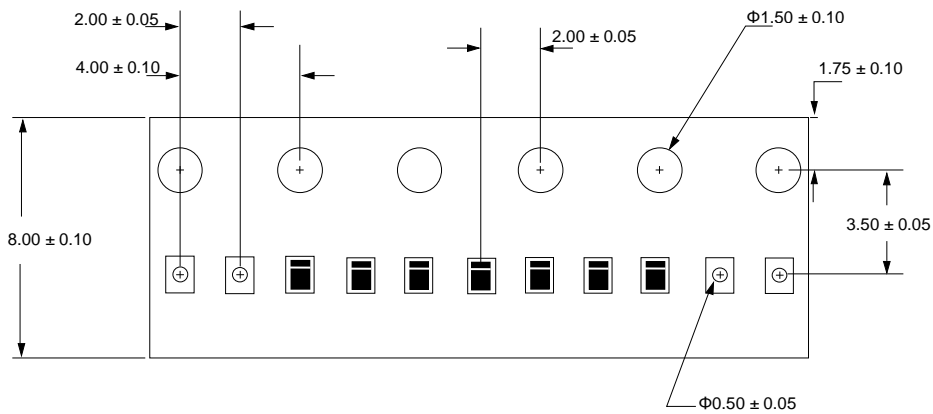
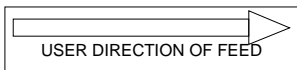


Dim	Inches		Millimeters	
	MIN	MAX	MIN	MAX
A	0.013	0.020	0.34	0.50
B	0.000	0.002	0.00	0.05
C	0.037	0.043	0.95	1.080
D	0.022	0.027	0.55	0.680
E	0.016	0.024	0.40	0.60
F	0.008	0.012	0.20	0.30
H	0.015Typ.		0.40Typ.	
R	0.001	0.005	0.05	0.15



Unit:mm

Suggested PCB Layout



Unit: mm



NOTICE

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