



PROTECTION PRODUCTS

Feature:

- 200 Watts Peak Pulse Power per Line (tp=8/20us)
- Protects One Bidirectional I/O Line
- Low clamping voltage
- Working voltages : 36V
- Low leakage current
- IEC61000-4-2 (ESD) $\pm 15\text{kV}$ (air), $\pm 8\text{kV}$ (contact)
- IEC61000-4-4 (EFT) 40A(5/50ns)
- 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
ESD1006N36VB1S201H	DN	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	± 8	KV
ESD Protection – Air Discharge, per IEC 61000-4-2	VESD_AIR	± 15	
Junctiontemperature	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	—	—	36	V	
Reverse Breakdown Voltage	VBR	40	—	—	V	IR = 1mA,
Reverse Leakage Current	IR	—	—	1.0	uA	VR = 3 6V,
Clamping Voltage	VC	—	—	60	V	IPP = 1.0A, 8/20μs
Clamping Voltage	VC	—	—	75	V	IPP = 2A,8/20μs
Junction Capacitance	CJ	—	20	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

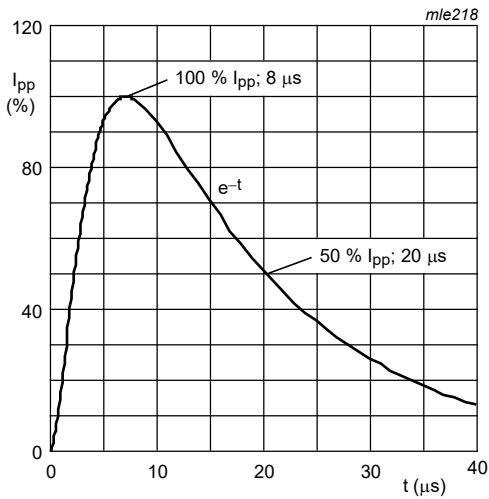
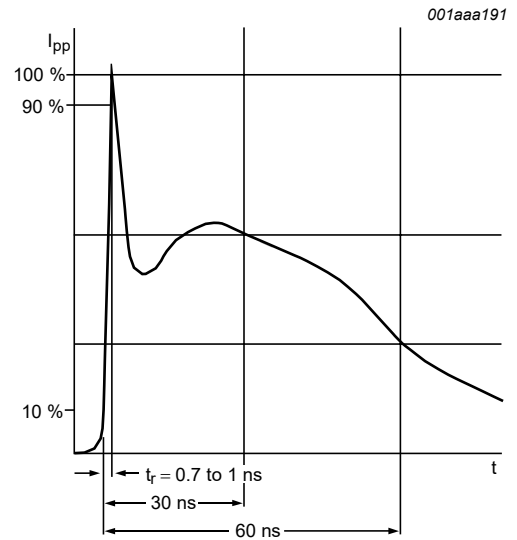
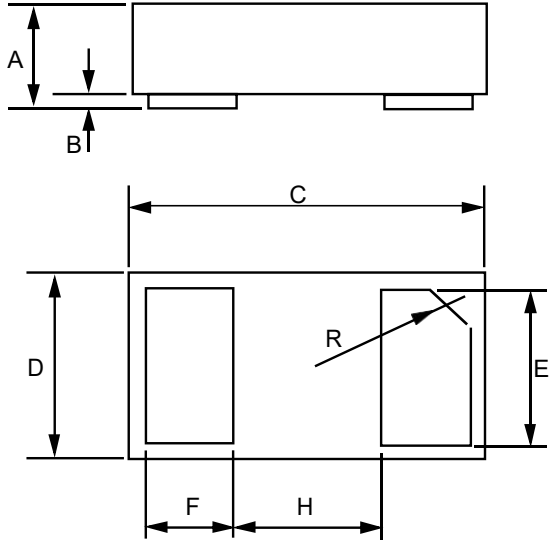


Fig 2. ElectroStatic Discharge (ESD) pulse waveform according to IEC 61000-4-2

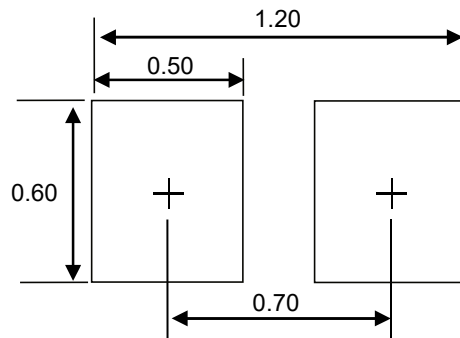




Dimension (DFN1006)

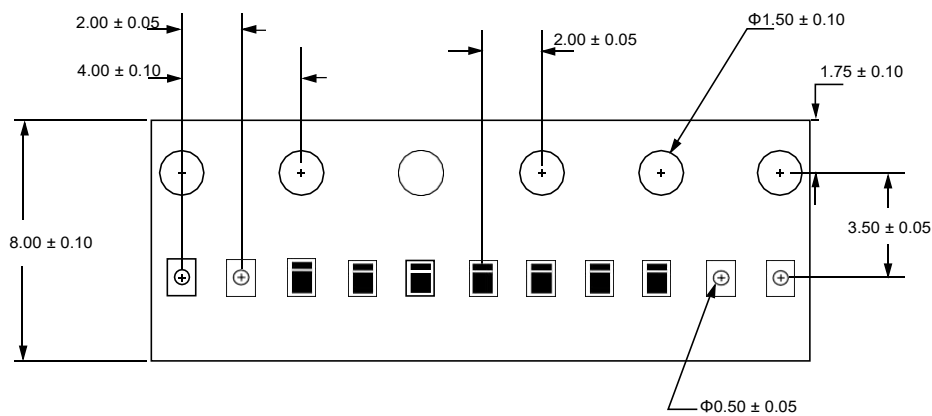
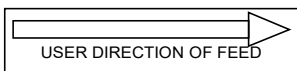


Dim	Inches		Millimeters	
	MIN	MAX	MIN	MAX
A	0.013	0.020	0.34	0.50
B	0.000	0.002	0.00	0.05
C	0.037	0.043	0.95	1.080
D	0.022	0.027	0.55	0.680
E	0.016	0.024	0.40	0.60
F	0.008	0.012	0.20	0.30
H	0.015Typ.		0.40Typ.	
R	0.001	0.005	0.05	0.15



Unit:mm

Suggested PCB Layout



Unit: mm



NOTICE

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The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of which would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), HSMelect Semiconductor Co., Ltd., or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale.

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