



PROTECTION PRODUCTS

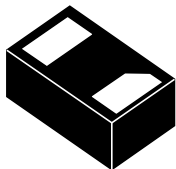
Feature:

- 120W peak pulse power per line (tP = 8/20μs)
- DFN1006-2L package
- Replacement for MLV(0402)
- Bidirectional configurations
- Response time is typically < 1ns
- Low clamping voltage
- RoHS compliant
- Transient protection for data lines to
IEC61000-4-2(ESD) ±30KV(air), ±30KV(contact);
IEC61000-4-4 (EFT) 40A (5/50ns)

Application:

- Cellular phones
- Portable devices
- Digital cameras
- Power supplies

Circuit Diagram & Pin Configuration:



DFN1006



DEVICE MARKING AND ORDERING INFORMATION

Device	Marking	Shipping
ESD1006N18VB121P	18D	10000/Tape&Reel



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

Parameter	Symbol	Rating	Unit
Peak pulse power (tp = 8/20μs)	Ppk	120	W
Peak Pulse Current (tp=8/20μs)	IPP	5	A
ESD Protection – Contact Discharge, per IEC 61000-4-2	VESD_CONTACT	±30	kV
ESD Protection – Air Discharge, per IEC 61000-4-2	VESD_AIR	±30	
Junctiontemperature	TJ	125	°C
Operating temperature	TOP	-40~85	°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	V	
Reverse Breakdown Voltage	VBR	19	22	24	V	IR = 1mA,
Reverse Leakage Current	IR	—	—	0.3	uA	VR = 18V,
Clamping Voltage	VC	—	24	27	V	IPP = 3A, 8/20μs,
Clamping Voltage	VC	—	26	29	V	IPP = 5A,8/20μs,
Junction Capacitance	CJ	—	22	—	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

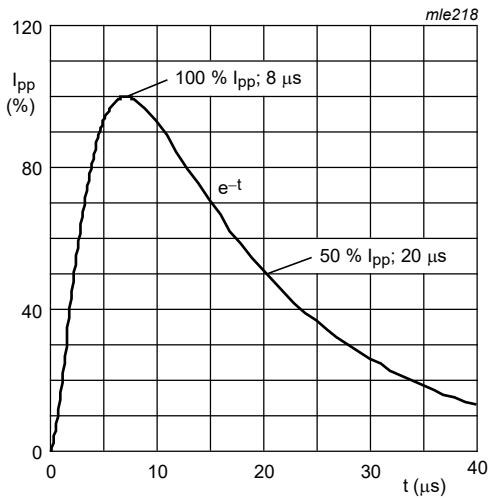
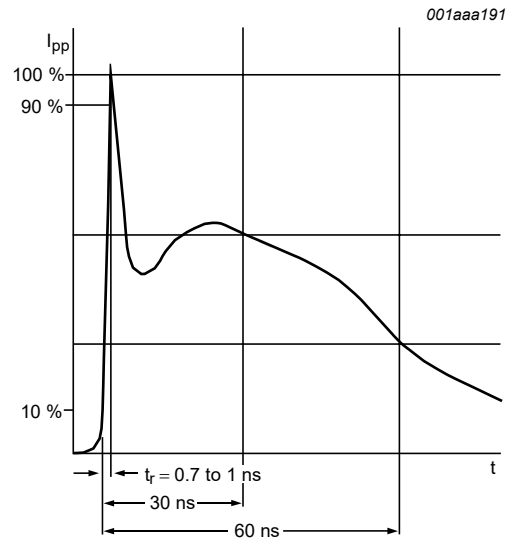
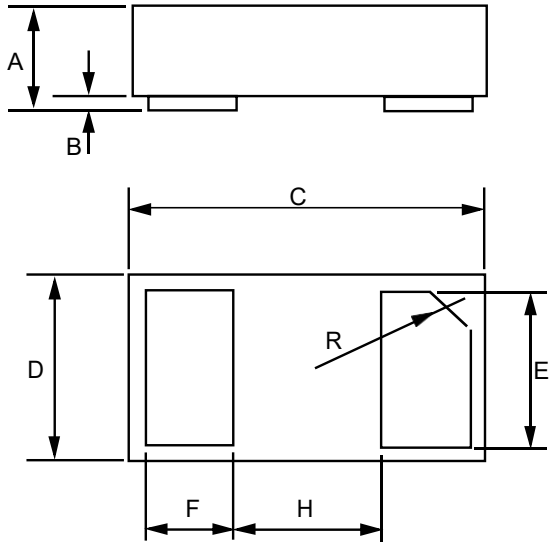


Fig 2. ElectroStatic Discharge (ESD) pulse waveform according to IEC 61000-4-2

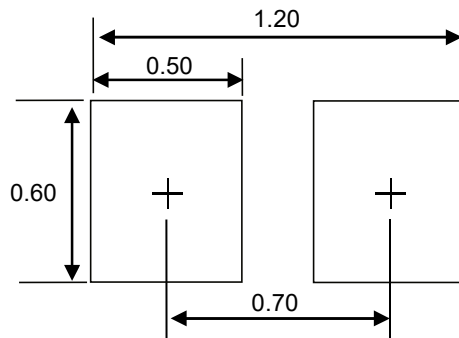




Product dimension (DFN1006-2L)

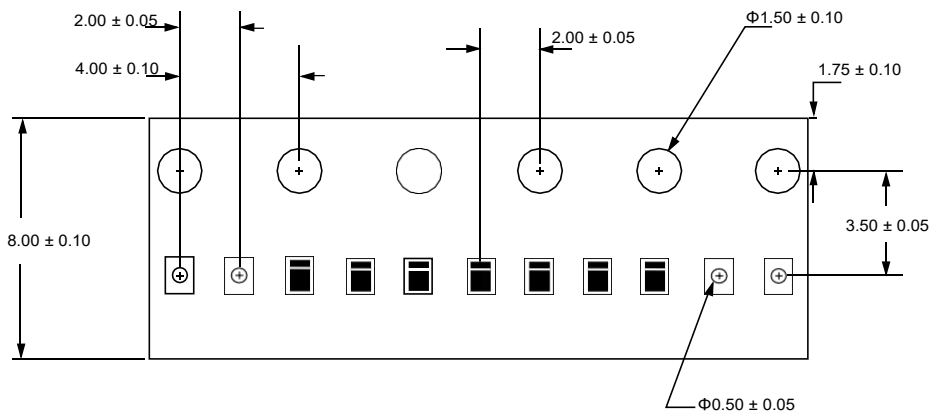
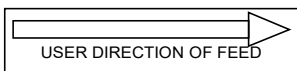


Dim	Inches		Millimeters	
	MIN	MAX	MIN	MAX
A	0.013	0.020	0.34	0.50
B	0.000	0.002	0.00	0.05
C	0.037	0.043	0.95	1.080
D	0.022	0.027	0.55	0.680
E	0.016	0.024	0.40	0.60
F	0.008	0.012	0.20	0.30
H	0.015Typ.		0.40Typ.	
R	0.001	0.005	0.05	0.15



Unit:mm

Suggested PCB Layout



Unit: mm



NOTICE

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