



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) $\pm 15kV$ (air), $\pm 8kV$ (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 | |
| 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 | — | — | 36 | V | |
| Reverse Breakdown Voltage | VBR | 40 | — | — | V | IR = 1mA, |
| Reverse Leakage Current | IR | — | — | 1.0 | uA | VR = 36V, |
| 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

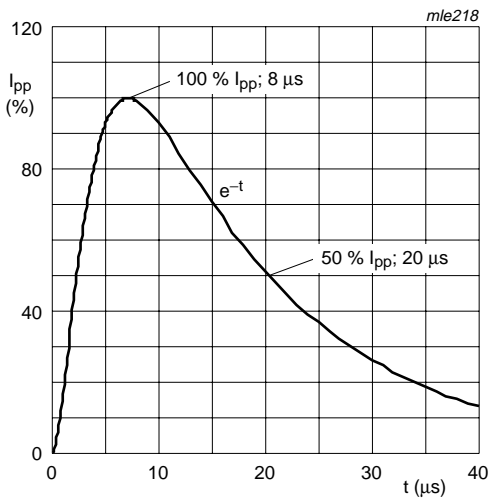
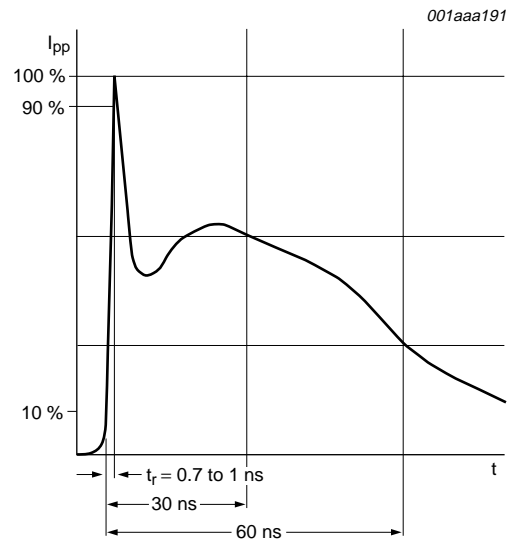
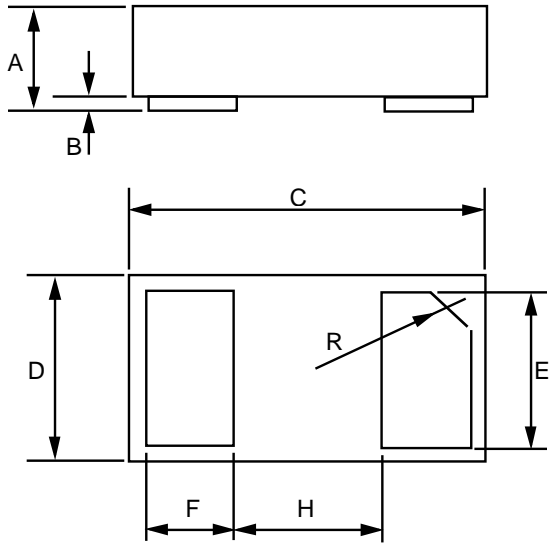


Fig 2. ElectroStatic Discharge (ESD) pulse waveform according to IEC 61000-4-2

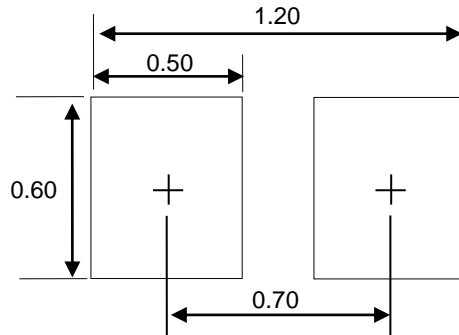




Dimension (DFN1006)

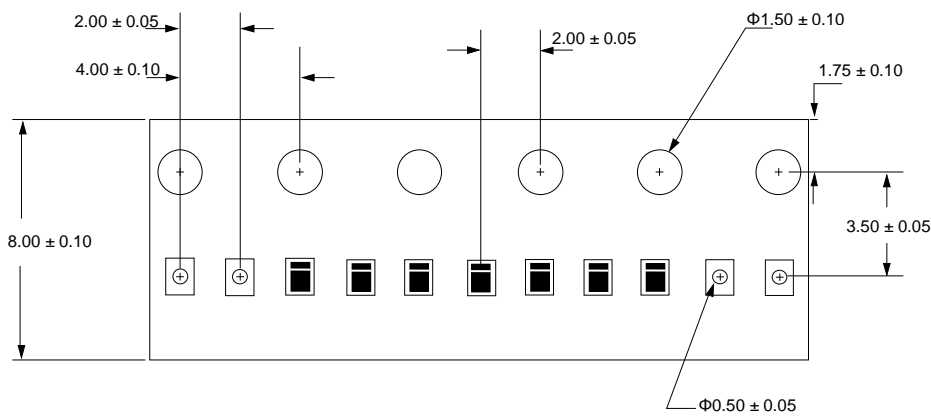
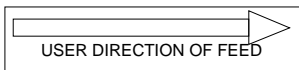


| Dim | Inches | | Millimeters | |
|-----|-----------|-------|-------------|-------|
| | MIN | MAX | MIN | MAX |
| A | 0.013 | 0.020 | 0.34 | 0.50 |
| B | 0.000 | 0.002 | 0.00 | 0.05 |
| C | 0.037 | 0.043 | 0.95 | 1.080 |
| D | 0.022 | 0.027 | 0.55 | 0.680 |
| E | 0.016 | 0.024 | 0.40 | 0.60 |
| F | 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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