



Features

- Ultra low capacitance: 0.35pF typical
- Ultra low leakage: nA level
- Low operating voltage: 5V
- Low clamping voltage
- 2-pin leadless package
- Complies with following standards:
- - IEC 61000-4-2 (ESD) immunity test
- Air discharge: $\pm 20\text{kV}$
- Contact discharge: $\pm 15\text{kV}$
- RoHS Compliant
- Lead Finish: NiPdAu

Mechanical Characteristics

- Extremely small form factor down to $0.6 \times 0.3 \times 0.3 \text{ mm}^3(0201)$
- Lead Finish: Matta Tin
- Pb-free (RoHS compliant) package

RoHS



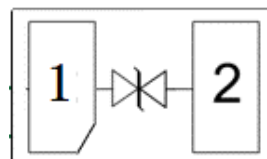
Applications

- Smart phones
- Display Ports
- MDDI Ports
- USB Ports
- Digital Video Interface (DVI)

Ordering Information

| Part Number | Qty per Reel | Reel Size |
|----------------|--------------|-----------|
| ESD5V0B03-0201 | 10000 | 7" |

Dimensions and Pin Configuration



Absolute Maximum Ratings (Tamb=25°C unless otherwise specified)

| Parameter | Symbol | Value | Unit |
|--|--------|-------------|------|
| Peak Pulse Power (tp=8/20μs) | PPP | 80 | W |
| Peak Pulse Current (tp=8/20μs) | IPP | 4 | A |
| ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact) | VESD | ±20 ±15 | kV |
| Operating Temperature Range | TJ | -55 to +125 | °C |
| Storage Temperature Range | Tstg | -55 to +150 | °C |

Electrical Characteristics (TA=25°C unless otherwise specified)

| Parameter | Symbol | Min | Typ | Max | Unit | Test Condition |
|-------------------------|--------|-----|------|------|------|---------------------------|
| Reverse Working Voltage | VRWM | | | 5 | V | Any I/O pin to ground |
| Breakdown Voltage | VBR | 6 | | 8.5 | V | IT = 1mA, |
| Reverse Leakage Current | IR | | | 0.2 | μA | VRWM = 5V, |
| Clamping Voltage | VC | | | 12 | V | IPP = 1A (8 x 20μs pulse) |
| Junction Capacitance | CJ | | 0.35 | 0.45 | pF | VR = 0V, f = 1MHz, |

Fig1. 8/20 μ s Pulse Waveform

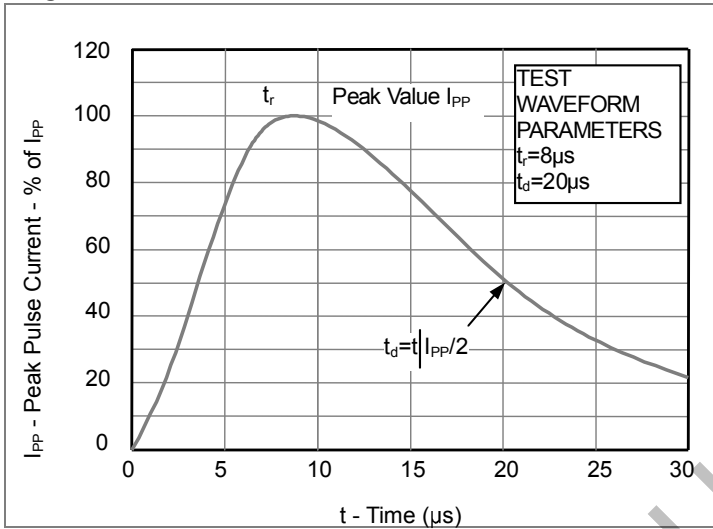


Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)

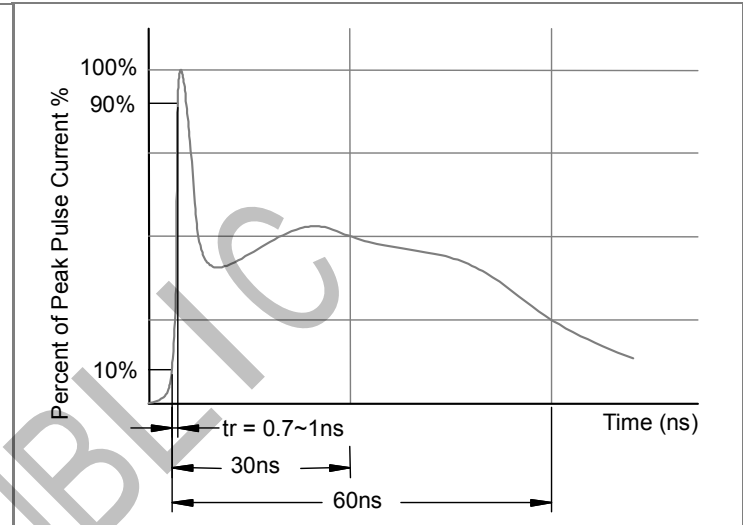
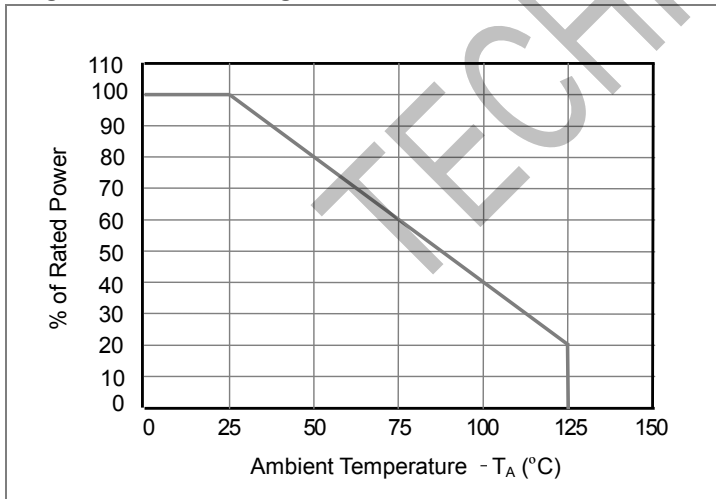
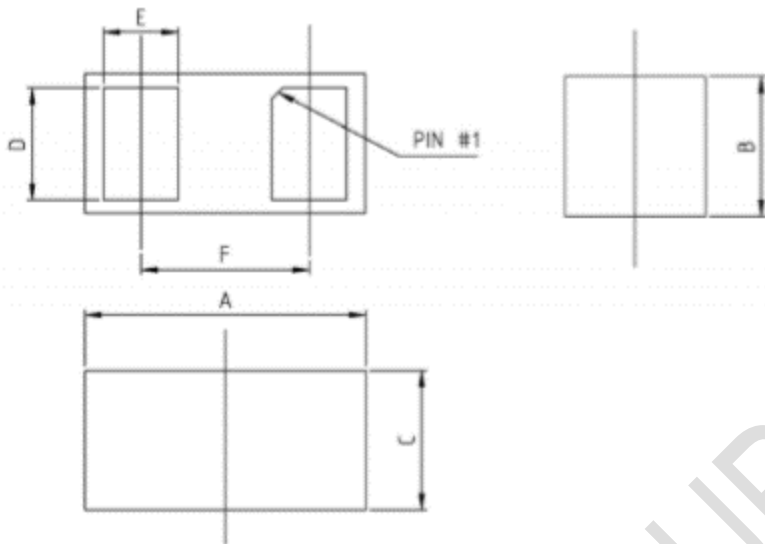


Fig3. Power Derating Curve



Outline Drawing -DFN0603-2L (0201)



| Dimensions In Millimeterer | | | |
|----------------------------|------|------|------|
| Symbol | MIN | TYP | MAX |
| A | 0.58 | 0.60 | 0.65 |
| B | 0.28 | 0.30 | 0.35 |
| C | 0.28 | 0.30 | 0.34 |
| D | 0.20 | 0.24 | 0.26 |
| E | 0.13 | 0.16 | 0.19 |
| F | - | 0.36 | - |

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