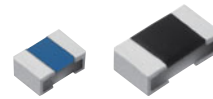


ESD Suppressor

Type: **EZAEG**

EZAEG1N, 2N



Features

- Good ESD withstanding (IEC61000-4-2 15 kV contact/air Discharge)
- ESD protection of high-speed data lines
- Low capacitance 0.04 pF : 0603(0201) size
0.05 pF : 1005(0402) size
- Good ESD suppression characteristics
- RoHS compliant

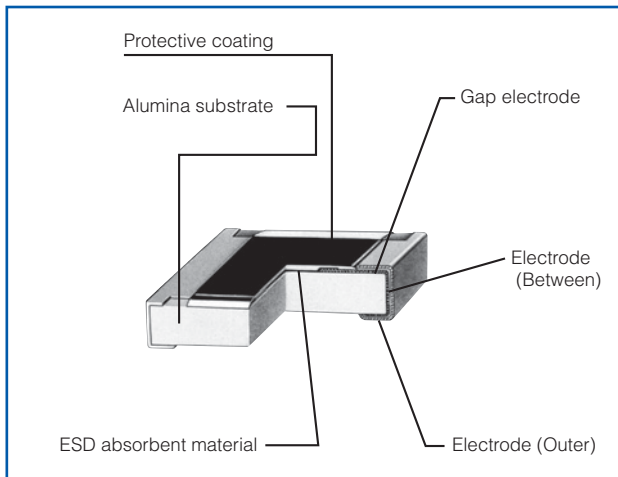
Recommended Applications

- Smart phones, Mobile phones, RF Modules, NFC and GPS
- ESD suppression of high-speed differential data line such as Antena circuit, HDMI, SATA, USB, Display Port

Explanation of Part Numbers

| | | | | | | | | | | | |
|--------------------------------|---|-----------------------------|--|---|----------|-----------------------------------|---|---|----|--|--|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | |
| E | Z | A | E | G | 2 | N | 5 | 0 | A | X | |
| Product Code ESD Suppressor | | Size Code Size mm (inch) | | Design Specification Code Design Specification | | Peak Voltage Code Peak Voltage | | Special Feature Code Special Feature | | Packaging Methods Code Packaging Part No. | |
| | | 1 0603 (0201) | N ESD withstanding 15 kV Rated Voltage 30 V | | 50 500 V | A Standard | | C Pressed Carrier Taping 2 mm Pitch, 15,000 pcs. | | EZAEG1N | |
| | | 2 1005 (0402) | | | | | | X Pressed Carrier Taping 2 mm Pitch, 10,000 pcs. | | EZAEG2N | |

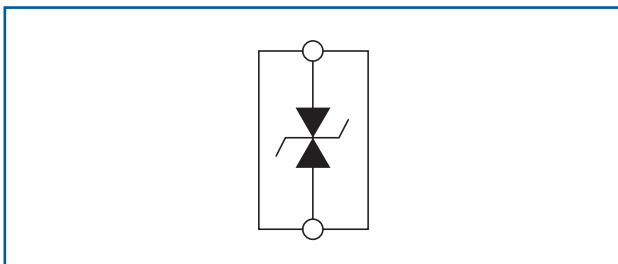
Construction



Dimensions in mm (not to scale)

| Part No. (inch size) | Dimensions (mm) | | | | | Mass (Weight) [g/1000 pcs.] |
|-------------------------|-----------------|-----------|-----------|-----------|-----------|--------------------------------|
| | L | W | a | b | t | |
| EZAEG1N (0201) | 0.60±0.03 | 0.30±0.03 | 0.15±0.10 | 0.15±0.10 | 0.23±0.03 | 0.12 |
| EZAEG2N (0402) | 1.00±0.10 | 0.50±0.05 | 0.20±0.10 | 0.27±0.10 | 0.38±0.05 | 0.60 |

Circuit Configuration



Ratings

| Part Number (inch size) | Capacitance ⁽¹⁾ | Peak Voltage ⁽²⁾ | Clamping Voltage ⁽³⁾ | ESD withstanding ⁽⁴⁾ | Rated Voltage | Category Temperature Range |
|-------------------------|---|-----------------------------|---------------------------------|---------------------------------|---------------|----------------------------|
| EZAEG1N50AC (0201) | 0.04 ^{+0.04} _{-0.03} pF | 500 V max. (350 V typ.) | 100 V max. | Contact/Air 15 kV | 30 V max | -55 to +125 °C |
| EZAEG2N50AX (0402) | 0.05 ^{+0.05} _{-0.04} pF | | | | | |

(1) Capacitance = The capacitance value shall be measured under the conditions specified below.

Frequency : 1 MHz±10 %, Voltage : 1 Vrms±0.2 Vrms, Temperature : 25 °C±2 °C

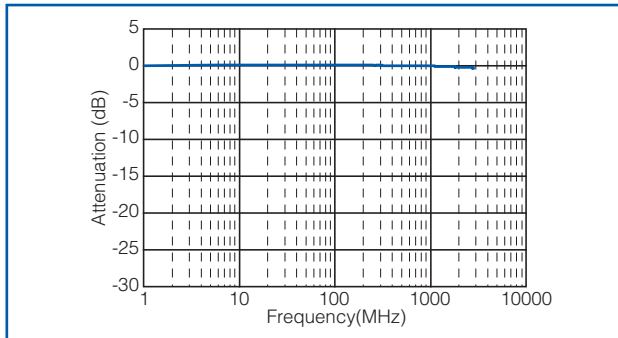
(2) Peak Voltage = The peak voltage value shall be measured under the following conditions. ESD test conditions : IEC61000-4-2, 8 kV contact discharge

(3) Clamping Voltage = The clamping voltage value shall be measured at 30 ns after initiation of pulse and measured under the conditions specified below.

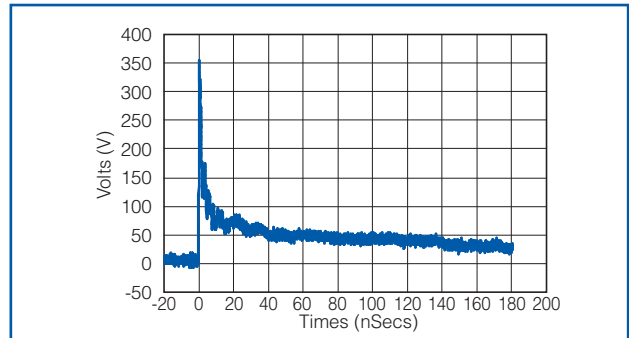
ESD test conditions : IEC61000-4-2, 8 kV contact discharge

(4) ESD test conditions : IEC61000-4-2 contact discharge

Frequency Characteristics

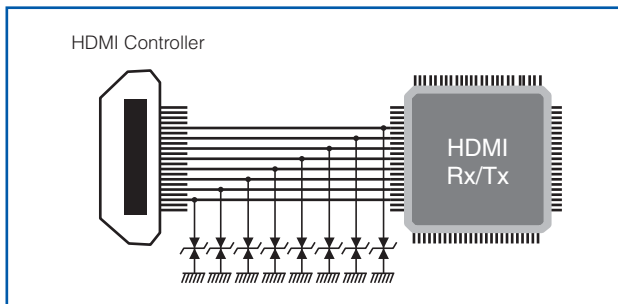


ESD Suppression Voltage Waveform

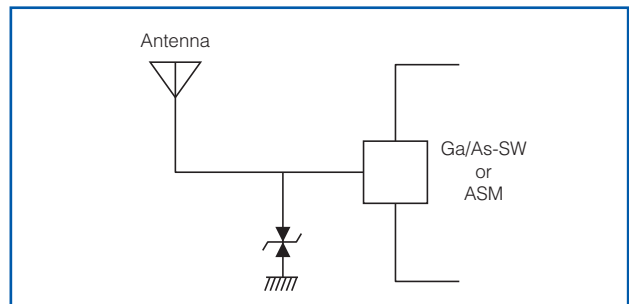


Typical Circuits Requiring Protection

● HDMI circuit

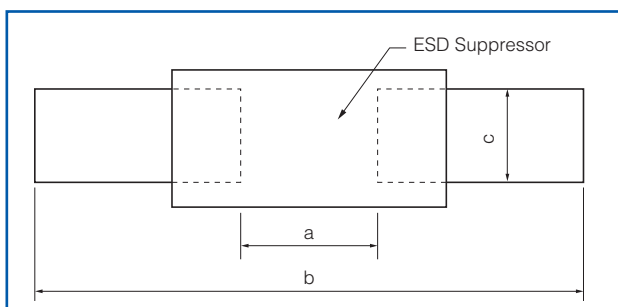


● Antenna circuit



Recommended Land Pattern

Recommended land pattern design for ESD Suppressor is shown below.



| Part Number (inch size) | Dimensions (mm) | | |
|-------------------------|-----------------|------------|--------------|
| | a | b | c |
| EZAEG1N (0201) | 0.3 to 0.4 | 0.8 to 0.9 | 0.25 to 0.35 |
| EZAEG2N (0402) | 0.5 to 0.6 | 1.4 to 1.6 | 0.40 to 0.60 |

■ As for Packaging Methods, Soldering Conditions and Safety Precautions,

Please see Data Files

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[ESD119B1W01005E6327XTSA1](#) [ESD5V0J4-TP](#) [ESD5V0L1B02VH6327XTSA1](#) [ESD7451N2T5G](#) [19180-510](#) [CPDT-5V0USP-HF](#)
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