

## ESD Suppressor

Type: **EZAEG**

**EZAEG1A, 2A, 3A**

### ■ Features

- ESD protection of high-speed data lines
- Low capacitance 0.04 pF : 0603(0201) size  
0.05 pF : 1005(0402) size  
0.10 pF : 1608(0603) size
- Good ESD suppression characteristics
- Good ESD withstanding
- RoHS compliant

### ■ Recommended Applications

- High-Speed Data Lines  
(HDMI, Serial ATA, USB, IEEE1394, Display Port)
- Antenna Circuitry and RF Modules (Cellular Phones)

### ■ Explanation of Part Numbers

1	2	3	4	5	6	7	8	9	10	11		
E	Z	A	E	G	2	A	5	0	A	X		
Product Code		Size		Design Specification		Peak Voltage		Special Feature		Packaging Methods		
ESD Suppressor		Code	Size (inch)	Code	Design Specification	Code	Peak Voltage	Code	Special Feature	Code	Packaging	Type
		1	0603 (0201)	A	Rated Voltage 30 V	50	500 V	A	Standard	C	Pressed Carrier Taping 2 mm Pitch, 15,000 pcs.	EZAEG1A
		2	1005 (0402)							X	Pressed Carrier Taping 2 mm Pitch, 10,000 pcs.	EZAEG2A
		3	1608 (0603)							V	Punched Carrier Taping 4 mm Pitch, 5,000 pcs.	EZAEG3A

## ■ Ratings

Type (inch size)	Capacitance <sup>(1)</sup>	Peak Voltage <sup>(2)</sup>	Clamping Voltage <sup>(3)</sup>	Rated Voltage	Category Temperature Range
EZAEG1A (0201)	0.04 <sup>+0.04</sup> <sub>-0.03</sub> pF	500 V max. (350 V typ.)	100 V max.	30 V max	-55 to +125 °C
EZAEG2A (0402)	0.05 <sup>+0.05</sup> <sub>-0.04</sub> pF				
EZAEG3A (0603)	0.10 <sup>+0.10</sup> <sub>-0.08</sub> pF				

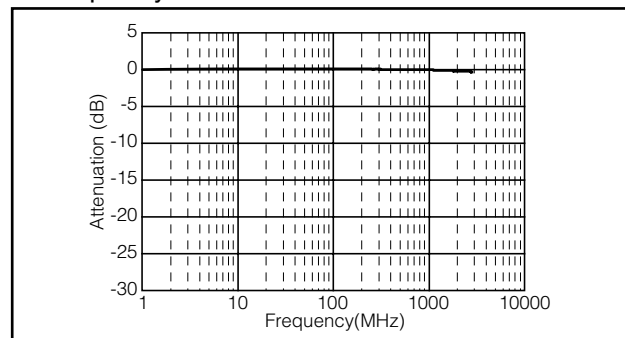
(1) Capacitance = The capacitance value shall be measured under the conditions specified below.

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

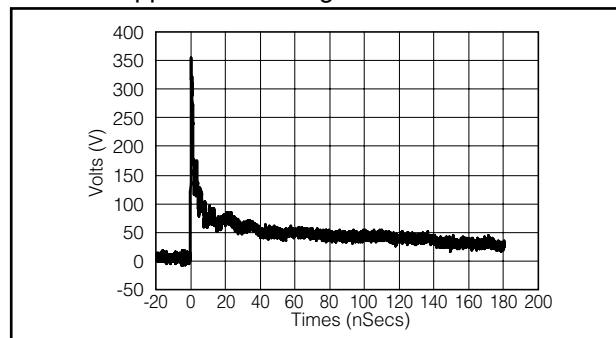
(2) Peak Voltage = The peak voltage value shall be measured under the following conditions. ESD test conditions : IEC61000-4-2, 8 kV contact discharge

(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

## ■ Frequency Characteristics

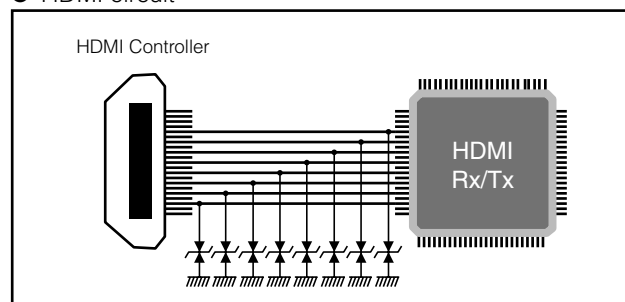


## ■ ESD Suppression Voltage Waveform

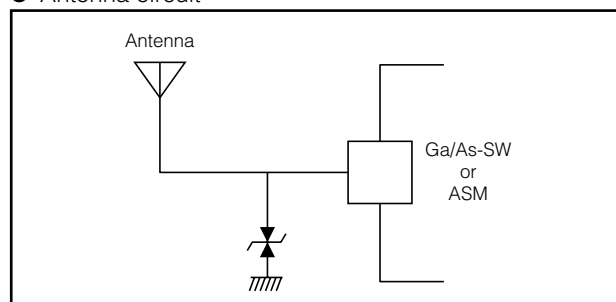


## ■ Typical Circuits Requiring Protection

### ● HDMI circuit

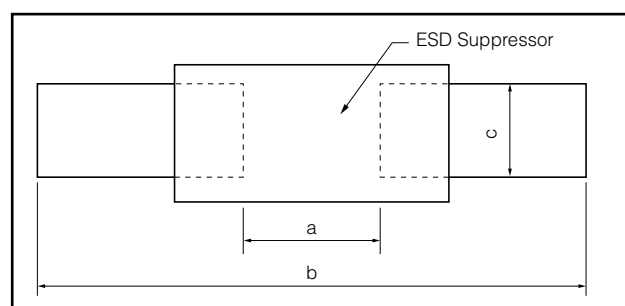


### ● Antenna circuit



## ■ Recommended Land Pattern

Recommended land pattern design for ESD Suppressor is shown below.



Type (inch size)	Dimensions (mm)		
	a	b	c
EZAEG1A (0201)	0.3 to 0.4	0.8 to 0.9	0.25 to 0.35
EZAEG2A (0402)	0.5 to 0.6	1.4 to 1.6	0.4 to 0.6
EZAEG3A (0603)	0.7 to 0.9	2.0 to 2.2	0.8 to 1.0

## ■ Packaging Methods, Soldering Conditions and Safety Precautions

Please see Data Files