

ESD Suppressor

Type: **EZAEG**

EZAEG2A, 3A



Features

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

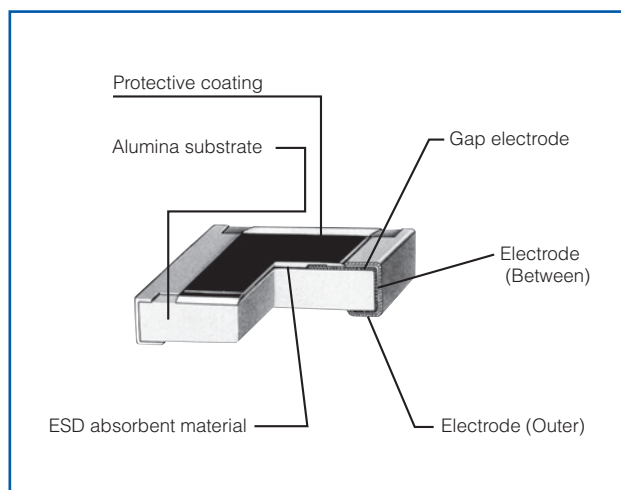
Recommended Applications

- Smart phones, Mobile phones, RF Modules, NFC and GPS
- ESD suppression of high-speed differential data line such as Antenna 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	A	5	0	A	X
Product Code ESD Suppressor	Size		Design Specification		Peak Voltage		Special Feature		Packaging Methods	
	Code	Size mm (inch)	Code	Design Specification	Code	Peak Voltage	Code	Special Feature	Code	Packaging
	2	1005 (0402)	A	Rated Voltage 30 V	50	500 V	A	Standard	X	Pressed Carrier Taping 2 mm Pitch, 10,000 pcs.
	3	1608 (0603)							V	Punched Carrier Taping 4 mm Pitch, 5,000 pcs.
										Part No.
										EZAEG2A
										EZAEG3A

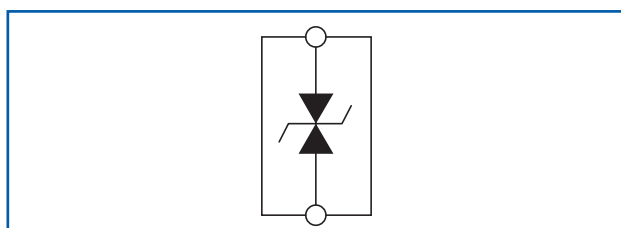
Construction



Dimensions in mm (not to scale)

Part No. (inch size)	Dimensions (mm)					Mass (Weight) [g/1000 pcs.]
	L	W	a	b	t	
EZAEG2A (0402)	1.00±0.10	0.50±0.05	0.20±0.10	0.25±0.10	0.38±0.05	0.6
EZAEG3A (0603)	1.60±0.15	0.80±0.15	0.30±0.20	0.30±0.20	0.50±0.10	2.2

Circuit Configuration



Ratings

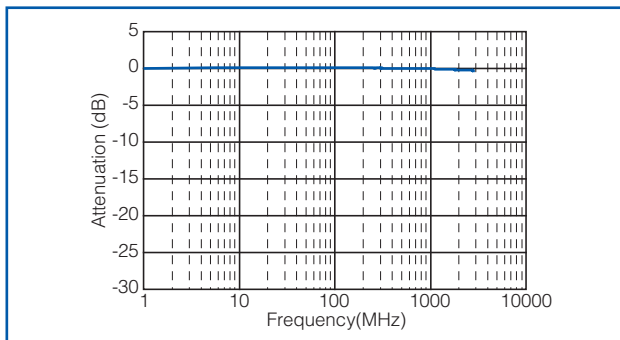
Part Number (inch size)	Capacitance ⁽¹⁾	Rated Voltage	Category Temperature Range
EZAEG2A50AX (0402)	0.05 ^{+0.05} _{-0.04} pF	30 V max.	-55 to +125 °C
EZAEG3A50AV (0603)	0.10 ^{+0.10} _{-0.08} pF		

(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

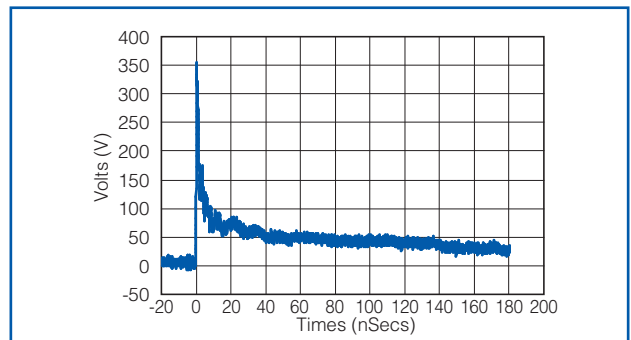
Performance

Test Item	Performance Requirements	Test Conditions
Peak Voltage	500 V max.	IEC61000-4-2, contact discharge 8 kV, Peak voltage value
Clamping Voltage	100 V max.	IEC61000-4-2, contact discharge 8 kV, voltage at 30 ns after initiation of pulse
Leakage Current	1 µA max.	Current at Rated voltage (DC 30 V)
ESD withstanding	Leakage current 10 µA max.	IEC61000-4-2, contact discharge 8 kV, +/- 10 times
Rapid Change of Temperature	Leakage current 10 µA max.	-55 °C (30 min.) / +125 °C (30 min.), 100 cycles
Load Life in Humidity	Leakage current 10 µA max.	60 °C, 90% to 95%RH, Rated voltage, 1000 h
Endurance at 85 °C	Leakage current 10 µA max.	85 °C, Rated voltage, 1000 h
Resistance to Soldering Heat	Leakage current 10 µA max.	270 °C, 10 s

Frequency Characteristics

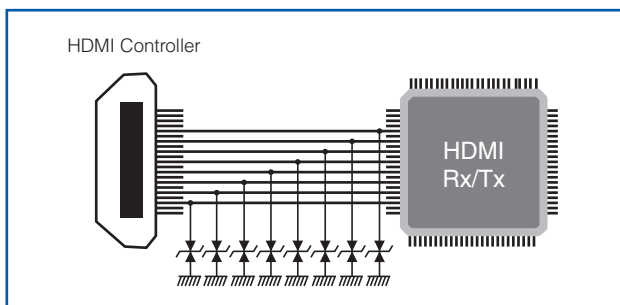


ESD Suppression Voltage Waveform

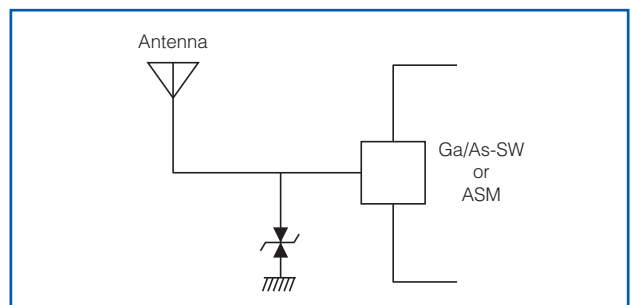


Typical Circuits Requiring Protection

● HDMI circuit

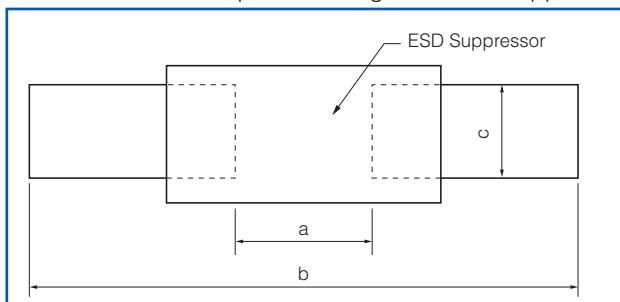


● Antenna circuit



Recommended Land Pattern

Recommended land pattern design for ESD Suppressor is shown below.



Part Number (inch size)	Dimensions (mm)		
	a	b	c
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

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

Please see Data Files

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