

◆ Feature

1. Protection against high ESD voltage and current
2. Compact size for EIA 0402 and 0603
3. Extremely quick response time (<1ns)
4. Extremely low capacitance(<0.5pF)
5. Extremely low leakage current
6. Zero signal distortion
7. Bi-directional



◆ Application

1. EGA10402V05AH、EGA10402V12A0、EGA10603 Series

are applied to RF module, Antenna circuit, IEEE-1394, USB2.0, DVI, and HDMI, DisplayPort...etc. high speed signal interface.

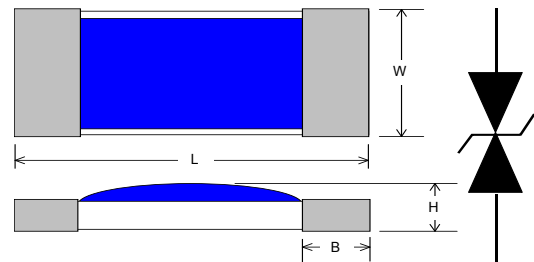
◆ How to Order

<u>EGA</u>	<u>1</u>	<u>0603</u>	<u>V05</u>	<u>A1</u>		<u>B</u>
(1)	(2)	(3)	(4)	(5)	-	(6)
(1) Series Type: ESD Guard™ Series						
(2) Elements Type						
(3) Chip Size(EIA): 0402/0603						
(4) Rated Voltage, V_{DC}						
(5) Model Code						
(6) Suffix for Special Code						

◆ Dimension

Unit: mm

Size EIA (EIAJ)	0402 (1005)	0603 (1608)
L	1.00±0.1	1.60±0.1
W	0.50±0.1	0.85±0.15
H	0.34±0.1	0.51±0.05
B	0.20±0.1	0.30±0.2



◆ Specification

Part Number	EGA10402V05AH	EGA10402V12A0
Maximum Operating Voltage (V_{DC})	5V	12V
Leakage Current ² (I_L)	0.05 μ A	0.05 μ A
Capacitance ³ , @1MHz(C_p)	0.2pF	0.2 pF
Trigger Voltage (V_t)	150V	300V
Clamping Voltage ⁴ (V_c)	30V	30V
ESD Voltage Capability, Contact Discharge Mode(KV)	8KV	8KV
ESD Voltage Capability, Air Discharge Mode(KV)	15KV	15KV
Minimum ESD Pulse Withstand	100	100

Part Number	EGA10603V05A1-B	EGA10603V12A1-B	EGA10603V24A0
Maximum Operating Voltage (V_{DC})	5V	12V	24V
Leakage Current ² (I_L)	0.01 μ A	0.01 μ A	0.01 μ A
Capacitance ³ , @1MHz(C_p)	0.2pF	0.2pF	0.2pF
Trigger Voltage (V_t)	150V	150V	300V
Clamping Voltage ⁴ (V_c)	30V	30V	30V
ESD Voltage Capability, Contact Discharge Mode(KV)	8KV	8KV	8KV
ESD Voltage Capability, Air Discharge Mode(KV)	15KV	15KV	15KV
Minimum ESD Pulse Withstand	100	100	500

Note:

1. Leakage current at maximum operating voltage.
2. Capacitance is measured with 1Vrms.
3. Per IEC 61000-4-2, 30A@8KV, level 4, clamp measurement made 30 ns after initiation of pulse, all test in contact discharge mode.

◆ General Technical Data

Operating Temperature	-40 ~+85℃
Storage Temperature	-55 ~ +125℃
Response Time	<1 ns
Solderability	245±5℃, 3±1sec.

◆ Environmental Performance

Item	Specifications	Test Condition
Bias Humidity	$I_L \leq 10 \mu A$	90%RH, 40℃, Rated Voltage, 1000 hrs
Thermal Shock		-40℃ to 85℃, 30 min. cycle, 5 cycles
Full Load Voltage		Rated Voltage, 85℃, 1000 hrs
Solder Leach Resistance		260±5℃, 10±1 sec.

I_L – Leakage current at rated voltage, the maximum leakage current was measured after reliability test.

◆ Package

Size EIA (EIAJ)	0402 (1005)	0603 (1608)
Standard Packing Quantity (pcs / reel)	10,000	5,000