

# WELLCOMP TECHNOLOGY CO., LTD

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## APPROVAL SHEET

<b>Model Name</b>	<b>ESD Suppressor</b>
<b>Part Number</b>	<b>WEP Series</b>
<b>Customer Name</b>	
<b>Customer P/N</b>	
<b>Issued Date</b>	

Customer		Maker		
Approved	Checked	Inspector	Checked	Prepared



元璽科技股份有限公司

WELLCOMP TECHNOLOGY CO., LTD.

桃園縣龜山鄉南上路 526 號

NO. 526, NangShang RD., Guishan Township

Taoyuan Country 333, Taiwan

Tel: +886-3-2220730, 2220731

Fax: +886-3-2222820

### Features

- ◆ Bi-direction Device
- ◆ Ultra Low Capacitance (<0.2pF)
- ◆ Ultra Quick Response Time (<1ns)
- ◆ Ultra Low Leakage Current (<0.005uA)
- ◆ Zero signal distortion
- ◆ Low clamping voltage
- ◆ Lead free, RoHs compliant for global applications and halogen free

### Application

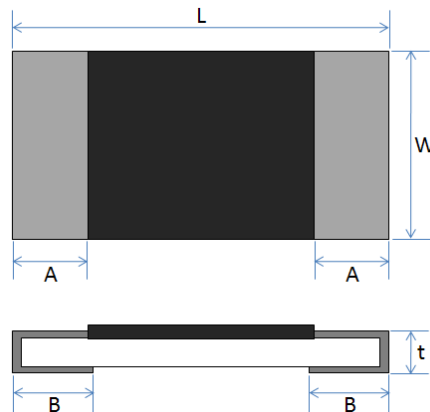
- ◆ PDA
- ◆ MP3/ Multimedia players
- ◆ Digital Camera
- ◆ Cell phones
- ◆ Ultra-high speed data port DVI, USB 3.0, HDMI, IEEE1394, Gigabit Ethernet
- ◆ DVD player, LCD TV, HDTV
- ◆ Computers , Laptops and peripherals
- ◆ Scanner/printer/ Set top boxes

### Part Numbering System

WEP 0603 20 I I 24 25 x  
 (1) (2) (3) (4) (5) (6) (7) (8)

- (1) Series Code
- (2) Size (EIA): Length x Width
- (3) Capacitance: 0.2pF=20,
- (4) Test Standard: I=IEC61000-4-2
- (5) Packaging: T- Embossed paper tape, 7" reel
- (6) Operating Voltage: 24V=24
- (7) Trigger Voltage: 250V=25
- (8) Factory Code

### Dimension



Unit: mm

Type (inch size)	Dimensions (mm)				
	L	W	t	A	B
WEP0402	1.00±0.10	0.50±0.05	0.35±0.05	0.20±0.10	0.25±0.10
WEP0603	1.55±0.10	0.80±0.10	0.45±0.10	0.30±0.20	0.35±0.20
WEP0805	2.0±0.15	1.25±0.15	0.50±0.10	0.40±0.20	0.35±0.20

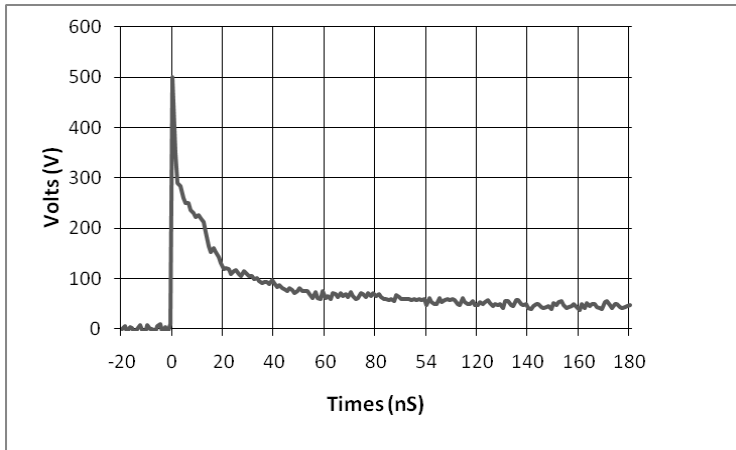
### Specification

Type	ESD Capability <sup>1</sup>	Max. Operating Voltage	Trigger Voltage (Typ.)	Clamping Voltage (Typ.)	Capacitance <sup>2</sup>	Leakage Current (@12VDC)	Response Time	ESD Pulse Resistance <sup>3</sup>
WEP0402	Direct	24 VDC	250 V	30 V	<0.2pF	<0.005uA	<1ns	>1000 pulses
WEP0603	Discharge:8KV Air		250 V	30 V				
WEP0805	Discharge:15KV		250 V	30 V				

**Note:**

- (1)The function meets with the requirement of IEC 61000-4-2 specification.
- (2)Capacitance measured at 1.8 GHz by RLC meter.
- (3)Test under IEC 61000-4-2 level 4, @ 30A and 8 KV.

### ESD Suppression Voltage Waveform



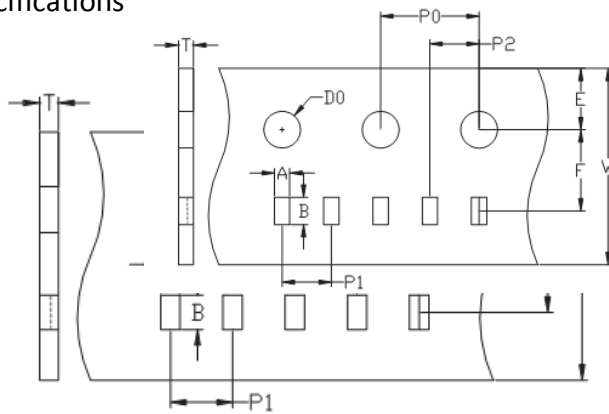
### Reliability Performance

Item	Reference Standards	Test Method	Requirement
Load Life		Apply rated voltage at 25±5°C for 1000 hours	I <sub>L</sub> : <5uA
Damp Heat with Load	MIL-STD-202, Method 103	40±2°C, 90~95% RH, 1000 hrs with applying rated power 1.5 hours ON and 0.5 hour OFF	I <sub>L</sub> : <5uA
Rapid change of temperature	JIS-C5202-7.4	-55°C (15min.)/+125°C (15min.), 5 cycle	I <sub>L</sub> : <5uA

Solderability	JIS-C5202-6.11	245± 5°C for 3 ± 0.5 sec	95% coverage minimum
Resistance to Soldering Heat	JIS-C5202-6.10	265± 5°C for 10 ± 0.5 sec	I <sub>L</sub> : <5uA
High temperature Exposure	JIS-C5202-7.2	125°C for 1000 hours	I <sub>L</sub> : <5uA
Bending Strength	JIS-C5202-6.1	Bending amplitude 3mm for 10 sec	I <sub>L</sub> : <5uA

### Tape Packaging Specifications

#### ◆Paper Tape Specifications



Unit:mm

Type	Carrier Dimensions									
	A	B	E	F	W	P0	P1	P2	D0	T
0402	0.7±0.05	1.2±0.05	1.75±0.1	3.5±0.05	8.0±0.2	4.0±0.1	2.0±0.1	2.0±0.05	1.55±0.05	0.45±0.1
0603	1.1±0.1	1.9±0.1	1.75±0.1	3.5±0.05	8.0±0.2	4.0±0.1	4.0±0.1	2.0±0.05	1.55±0.05	0.64±0.1
0805	1.6±0.1	2.4±0.1	1.75±0.1	3.5±0.05	8.0±0.2	4.0±0.1	4.0±0.1	2.0±0.05	1.55±0.05	0.84±0.1

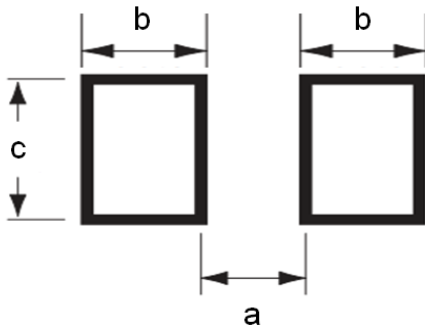
### Packaging

Size EIA (EIAJ)	0402	0603	0805
Standard Packing Quantity (pcs /reel)	10,000	5,000	5,000

### Storage Conditions

Temperature : 5~35°C, Humidity : 40~75%

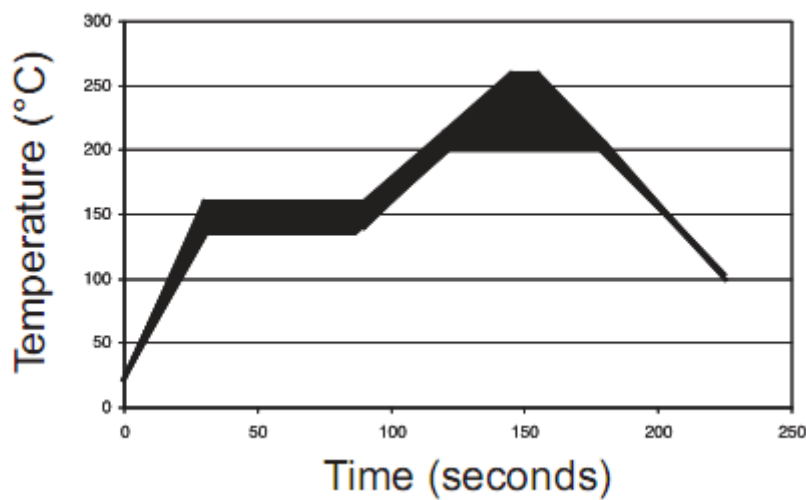
### Recommended Pad Layout



Type	Pad Layout Dimension (mm)		
	a	b	c
0402	0.60	0.50	0.60
0603	0.90	0.65	1.00
0805	1.20	1.20	1.20

### Soldering Recommendations

- ◆ Peak reflow temperatures and durations :
  - IR Reflow Peak = 260°C max for 30 sec
  - Wave Solder = 260°C max for 10 sec
- ◆ Compatible with lead and lead-free solder reflow processes
- ◆ Recommended IR Reflow Profile :



### ECN

Engineering Change Notice : The customer will be informed with ECN if there is significant modification on the characteristics and materials described in Approval Sheet.