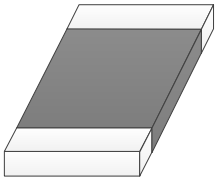
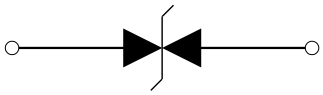
WEP300RF0603

Ceramic ESD Protector

Features





- Ideal ESD protection for high frequency, high speed applications.
- Ultra-low capacitance (0.2pf typical).
- Fast response time (<1ns, 0.5ns typical).
- Very low leakage current, reduces power consumption.
- Bi-directional device for placement flexibility.
- Surface mount design for board space savings.
- Compatible with standard reflow installation procedures.

RoHS

Main Application

WAYON's ESD Protector help protect sensitive electronic equipment against electrostatic discharge (ESD). These devices are best suited for high-speed, high-frequency applications where low capacitance is important. The devices are used to suppress fast-rising ESD transients (as specified in IEC 61000-4-2 and MIL-STD-883C), Assist equipment to pass these standards, while adding virtually no capacitance to the circuit. Typical application including:

- High Speed Data Ports, DVI, HDMI1.3/1.4, USB2.0/3.0, DisplayPort1.0/1.1, e-SATA, IEEE1394.
- Antennas (Cell phone, Satellite Radio, GPS…), Blue Tooth, LED lighting Protection.
- Portable devices, Cellular phone, PDA's, Digital Cameras, Digital Camcorders.
- High Speed Ethernet, DSL Modems, Computers & Peripherals, Printer ports.
- HDTV, Set Top Boxes, DVD Players, A/V Equipment, Multimedia Players.

Electrical Parameters (T=25°C)

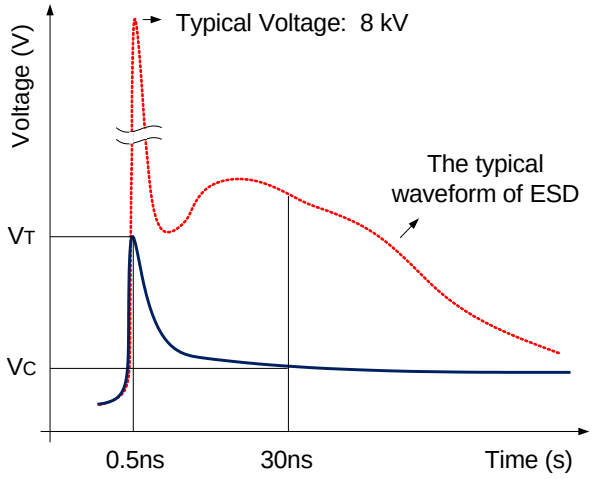
Part Number	Working Voltage	Trigger Voltage	Clamping Voltage	Leakage Current	Capacitance
	V_{DC}	V_T	V_C	I_L	C_P
	Max.	Typ.	Typ.	Max.	Typ.
	V	V	V	μA	pF
WEP300RF0603	30	200	30	0.1	0.2

*Trigger voltage measured per IEC61000-4-2 Level4,8KV.

*Capacitance measured at 1MHz.

*Leakage current measured at working voltage.

General Characteristics



IEC61000-4-2 Standards

Level	First Peak Current (A)	Peak Current at 30 ns (A)	Peak Current at 60 ns (A)	Test Voltage (Contact Discharge) (kV)	Test Voltage (Air Discharge) (kV)
1	7.5	4	2	2	2
2	15	8	4	4	4
3	22.5	12	6	6	8
4	30	16	8	8	15

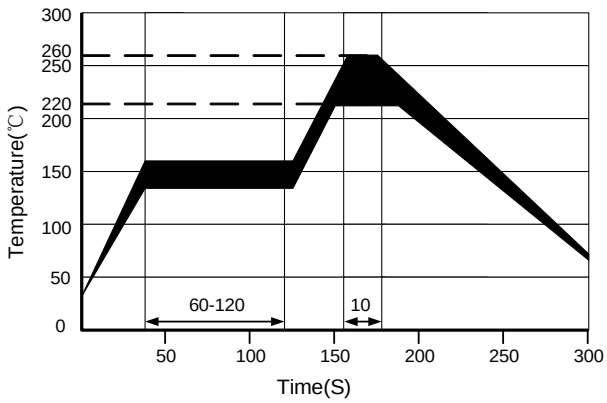
Operating Temperature Range	-50°C to +125°C
Storage temperature range	-50°C to +125°C
ESD Capability: IEC61000-4-2 Contact Discharge IEC61000-4-2 Air Discharge	 8kV typical 15kV typical

Environmental Specifications

- High Temperature Storage: 125°C，1000 hours without load.
- Temperature Cycle: The temperature cycle shall be repeated for five times，-40°C、30 min，room temperature 1~2 hours，125°C、30 min，room temperature 1~2 hours.
- High Temperature Load：85°C，1000 hours with the maximum allowable voltage.
- Humidity Load：40°C，90 to 95% RH environment，the maximum allowable voltage applied for 1000 hours.
- Low Temperature Storage：-40°C，500 hours without load.

* After being test，all the specimen should be stored at room temperature 1~2 hours，the change of voltage shall be within 10%.

Solder Reflow Recommendations

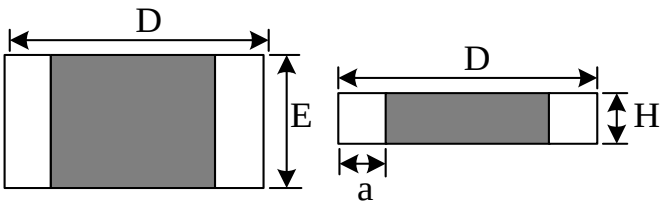


- Recommended reflow methods: IR, vapor phase oven, hot air oven.
- The device can be exposed to a maximum temperature of 260°C for 10 seconds.
- Devices can be cleaned using standard industry methods and solvents.

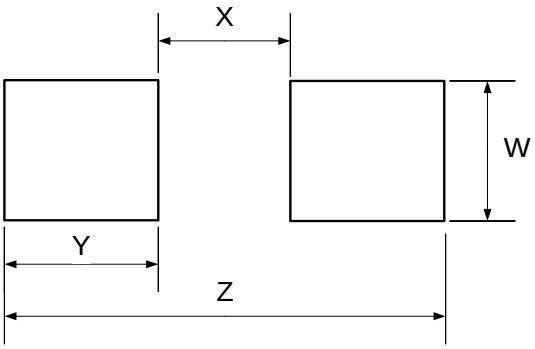
Notes: If reflow temperatures exceed the recommended profile, devices may not meet the performance requirements.

Product Dimensions

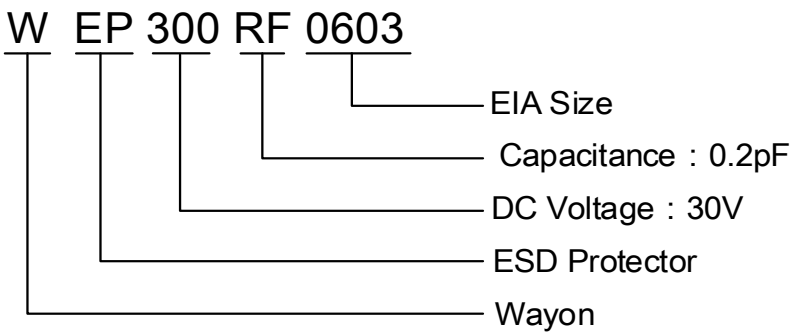
Ref.（mm）	Min.	Max.
D	1.45	1.75
E	0.7	0.9
H		0.9
a	0.2	0.4



Ref.（mm）	Min.	Max.
W	0.7	1.0
X	0.9	1.2
Y	0.9	1.2
Z	2.7	3.2



Part Numbering System



Package Information

Qty：5kpcs/Reel

Contact Information

No.1001, Shiwan(7) Road, Pudong District, Shanghai, P.R.China.201207
Tel: 86-21-68969993 Fax: 86-21-50757680 Email: market@way-on.com
WAYON website: **http://www.way-on.com**
For additional information, please contact your local Sales Representative.

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Specifications are subject to change without notice.
The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.
Users should verify actual device performance in their specific applications.