

## 75-1000V Ceramic Gas Discharge Tubes

### 1. Description

1812-090(ES) ceramic gas discharge tubes, are commonly used to help protect sensitive telecom equipment such as communication lines, signal lines and data transmission lines from damage caused by transient surge voltages that typically result from lightning strikes and equipment switching operations. Offer excellent surge protection characteristics, low capacitance and a broad array of breakdown voltage levels, making them suitable for applications such as high data-rate telecom communication network protection (e.g. ADSL, VDSL).

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### 2. Features

- Feature Non-Radioactive
- ROHS Compliant
- LOW Capacitance
- Extremely small size
- SMD Device
- High insulation resistance
- Fast response-time

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### 3. Applications

- PON protection
- PCI Cards protection
- Telephone/Fax/modem protection
- Date/Single line protection
- Consumer electronic
- XDSL Splitter
- Electrostatic charge elimination

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### 4. Product characteristics

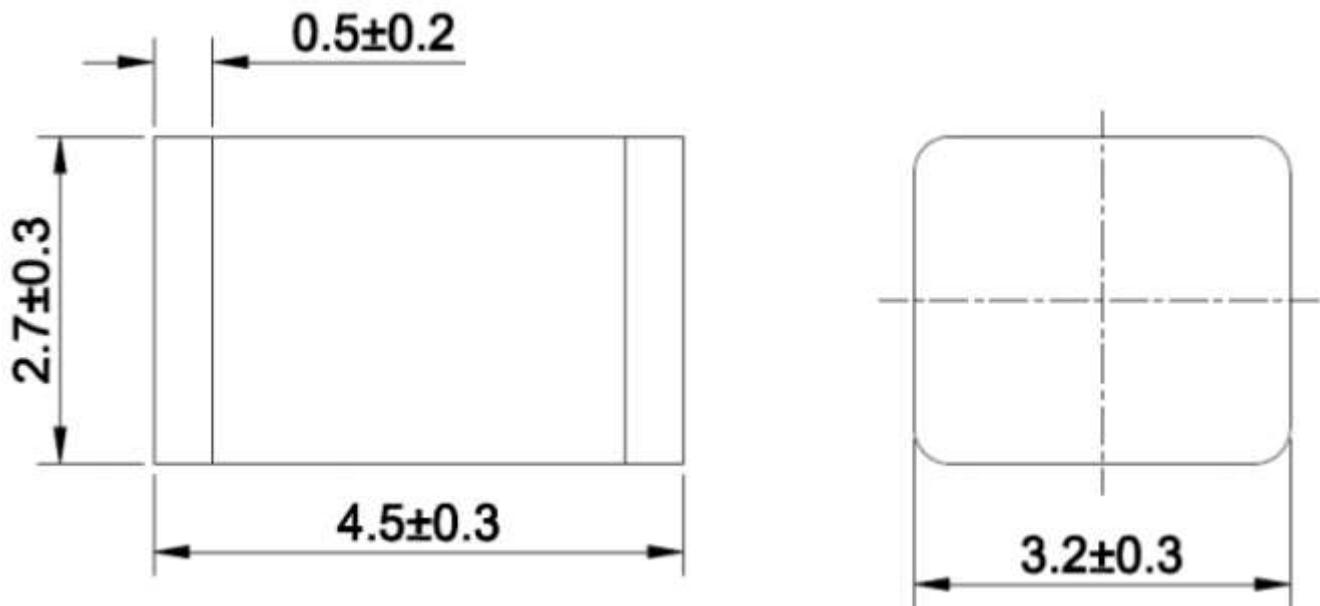
Part Number	Physical dimensions	Packing	Quantity per reel	Reel Size
1812-090(ES)	4.5mm*3.2mm*2.7mm	Tape	2500 PCS	13 inches

Table-1 Ordering information

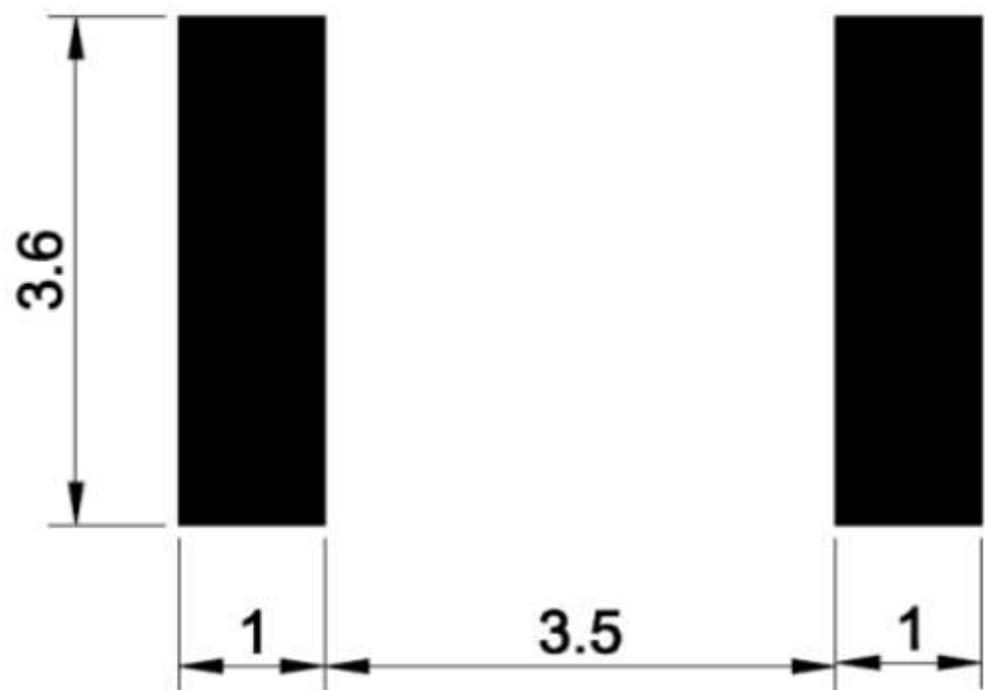
## 5. Electrical Characteristics

Part number	DC spark-over Voltage	Impulse spark-over Voltage	Nominal Impulse Discharge current		Electrode Capacitance	Insulation resistance	DC Holdover voltage
	100V/s	1 KV/μs	8/20 μs	10/700μs	1MHz		
1812-090(ES)	90V ±30%	<600V	2KA	4.0KV	<1.0pF	>100MΩ	50V

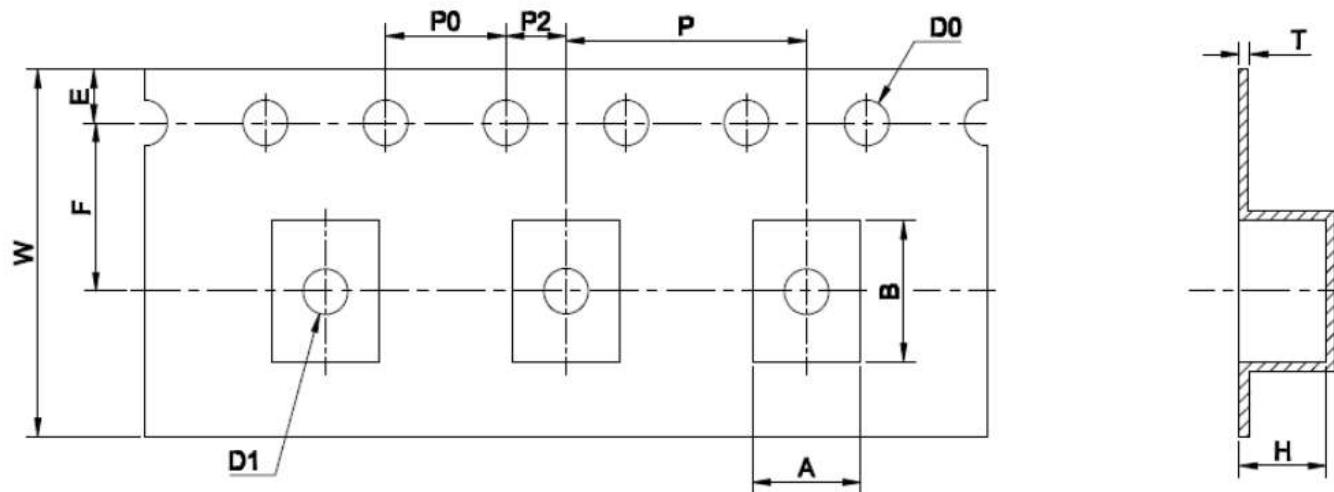
## 6. Mechanical Dimension



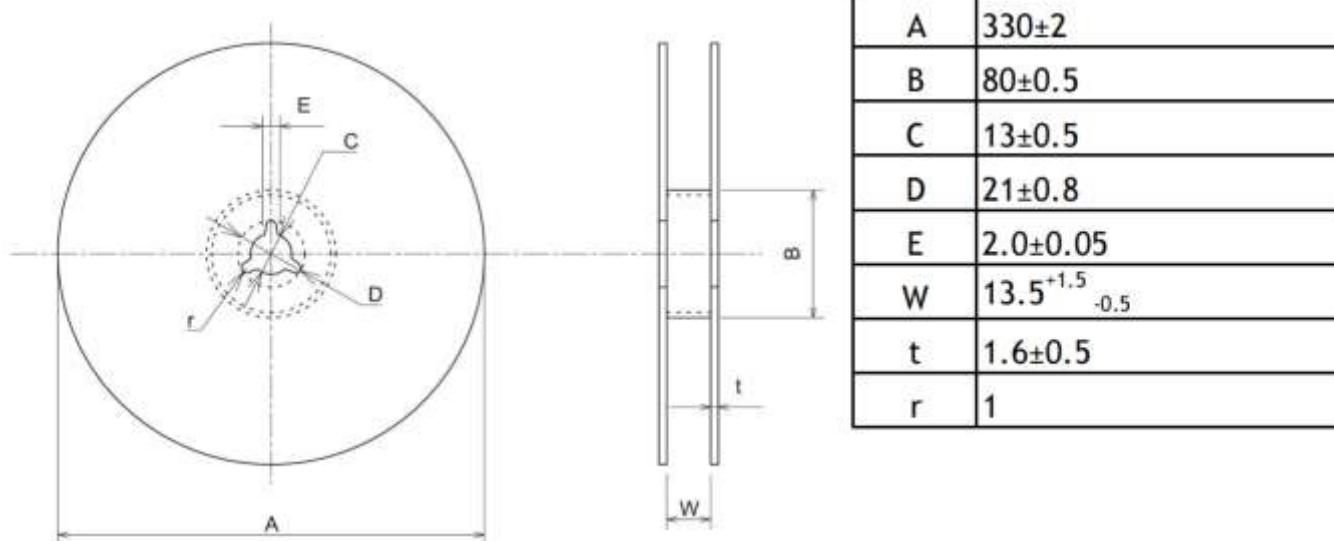
## 7. Recommended Land Pattern(unit:mm)



## 8. Packaging(unit:mm)



A	B	W	E	F	P	P <sub>2</sub>
3.6±0.1	4.6±0.1	12±0.2	1.75±0.1	5.50±0.05	8.0±0.1	2.0±0.05
P <sub>0</sub>	D <sub>0</sub>	D <sub>1</sub>	T	H		
4.0±0.1	Φ1.5±0.1	Φ1.5±0.1	0.30±0.05	2.9±0.1		



A	330±2
B	80±0.5
C	13±0.5
D	21±0.8
E	2.0±0.05
W	13.5 <sup>+1.5</sup> <sub>-0.5</sub>
t	1.6±0.5
r	1

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