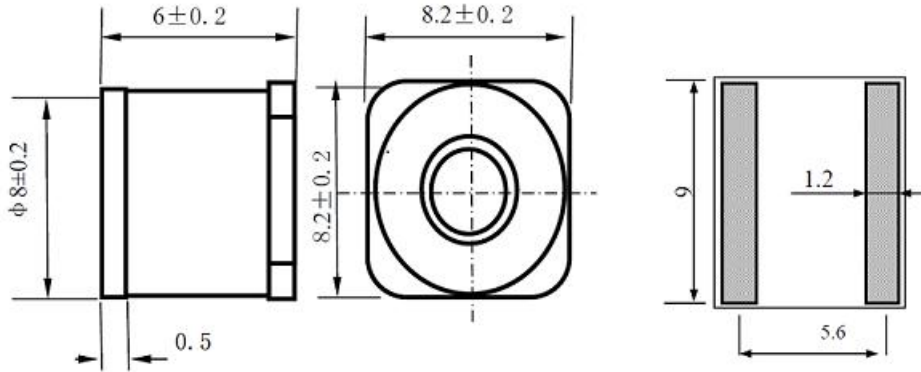


## 2-Electrode Gas Discharge Tubes

10KA  
Surface Mount



### 1: Dimension(mm)



### 2: Main Applications

- PCI Cards protection
- Telephone/Fax/Modem protection
- single line protection
- ADSL/XDSL Splitter, Power Supply
- Surge Protection Device/Surge Protector

### 3: Features

- 100% Lead-Free (RoHS Compliant)
- Non-Radioactive
- Low capacitance: ≤1pF
- Small size : Φ8x6(mm)
- Safety certification: File number: E505240

### 4 Electrical Characteristics

Part Number	DC Spark-over Voltage	Impulse Spark-over Voltage	Impulse Spark-over Voltage	Insulation Resistance	Impulse discharge current	Impulse Life	AC discharge current	Delivery time	UL Certificate
	@100V/S	@100V/μs	@1KV/μs	GΩ	10 Times	10x1000μs	10times	days	UL497B
HA2R8-75MSMD	75V ±20%	≤500V	≤ 600V	>1GΩ	10KA	100A	10A	12days	E505240
HA2R8-90MSMD	90V ±20%	≤500V	≤ 600V	>1GΩ	10KA	100A	10A	12days	E505240
HA2R8-140MSMD	140V±20%	≤500V	≤ 600V	>1GΩ	10KA	100A	10A	12days	E505240
HA2R8-150MSMD	150V±20%	≤500V	≤ 600V	>1GΩ	10KA	100A	10A	12days	E505240
HA2R8-200MSMD	200V±20%	≤600V	≤ 700V	>1GΩ	10KA	100A	10A	12days	E505240
HA2R8-230MSMD	230V±20%	≤600V	≤ 700V	>1GΩ	10KA	100A	10A	12days	E505240
HA2R8-250MSMD	250V±20%	≤600V	≤ 700V	>1GΩ	10KA	100A	10A	12days	E505240
HA2R8-260MSMD	260V±20%	≤700V	≤ 800V	>1GΩ	10KA	100A	10A	12days	E505240
HA2R8-300MSMD	300V±20%	≤800V	≤ 900V	>1GΩ	10KA	100A	10A	12days	E505240
HA2R8-350MSMD	350V±20%	≤900V	≤ 1000V	>1GΩ	10KA	100A	10A	12days	E505240
HA2R8-400MSMD	400V±20%	≤900V	≤ 1000V	>1GΩ	10KA	100A	10A	12days	E505240
HA2R8-420MSMD	420V±20%	≤900V	≤ 1000V	>1GΩ	10KA	100A	10A	12days	E505240
HA2R8-470MSMD	470V±20%	≤1100V	≤ 1200V	>1GΩ	10KA	100A	10A	12days	E505240
HA2R8-500MSMD	500V±20%	≤1100V	≤ 1200V	>1GΩ	10KA	100A	10A	12days	E505240
HA2R8-550MSMD	550V±20%	≤1300V	≤ 1400V	>1GΩ	10KA	100A	10A	12days	E505240
HA2R8-600MSMD	600V±20%	≤1300V	≤1400V	>1GΩ	10KA	100A	10A	12days	E505240

4 Electrical Characteristics

10KA

Part Number	DC Spark-over Voltage	Impulse Spark-over Voltage	Insulation Resistance	Impulse discharge current 8/20μs	Capacitance 1MHz	AC discharge current 50Hz,1s	Delivery time	UL Certificate
	@100V/S	@1KV/μs	GΩ	10 Times	pF	10times	days	UL1449
HA2R8-800MSMD	800V ±20%	≤1400V	>1GΩ	10KA	≤1pF	10A	12days	---
HA2R8-1000MSMD	1000V±20%	≤ 1700V	>1GΩ	10KA	≤1pF	10A	12days	---

4 Electrical Characteristics

Continue

Part Number	DC Holdover Voltage	On-State Voltage	Impulse discharge current 8/20μs	Peak Current @10/350μs	Weight
	Per ITU K.12 (<150ms)	Nominal @ 1A	1time	1time	g
HA2R8-75MSMD	<52V	20V	12KA	1KA	~1.5g
HA2R8-90MSMD	<52V	20V	12KA	1KA	~1.5g
HA2R8-140MSMD	<80V	20V	12KA	1KA	~1.5g
HA2R8-150MSMD	<80V	20V	12KA	1KA	~1.5g
HA2R8-200MSMD	<135V	20V	12KA	1KA	~1.5g
HA2R8-230MSMD	<135V	20V	12KA	1KA	~1.5g
HA2R8-250MSMD	<135V	20V	12KA	1KA	~1.5g
HA2R8-260MSMD	<135V	20V	12KA	1KA	~1.5g
HA2R8-300MSMD	<150V	20V	12KA	1KA	~1.5g
HA2R8-350MSMD	<150V	20V	12KA	1KA	~1.5g
HA2R8-400MSMD	<150V	20V	12KA	1KA	~1.5g
HA2R8-420MSMD	<150V	20V	12KA	1KA	~1.5g
HA2R8-470MSMD	<150V	20V	12KA	1KA	~1.5g
HA2R8-500MSMD	<150V	20V	12KA	1KA	~1.5g
HA2R8-550MSMD	<150V	20V	12KA	1KA	~1.5g
HA2R8-600MSMD	<150V	20V	12KA	1KA	~1.5g
HA2R8-800MSMD	<150V	20V	12KA	1KA	~1.5g
HA2R8-1000MSMD	<150V	20V	12KA	1KA	~1.5g

1:At delivery AQL 0.65 leave II Military Standard 105 E

2:In ionized mode

3:Test according to ITU-T Rec.k.12

## Environmental resistance

<b>Storage temperature:</b>	-40℃---+90℃
<b>Operating temperature:</b>	-40℃---+90℃
<b>Electrode:</b>	Tin Plated

## Example Part Number: HA2R8-90MSMD

<b>HA</b>	<b>=</b>	<b>HUAAN</b>
<b>2</b>	<b>=</b>	<b>2 Electrode device</b>
<b>R</b>	<b>=</b>	<b>Gas Discharge Tube</b>
<b>8</b>	<b>=</b>	<b>8mm Diameter</b>
<b>90</b>	<b>=</b>	<b>90V</b>
<b>M</b>	<b>=</b>	<b>Medium Surge 10KA</b>
<b>SMD</b>	<b>=</b>	<b>Surface-mount</b>

## Tape Specification and Reel Dimensions

Symbol	Dimensions(mm)
<b>W</b>	<b>16.0mm ±0.3</b>
<b>E</b>	<b>1.75mm ±0.1</b>
<b>F</b>	<b>7.5mm ±0.1</b>
<b>T</b>	<b>0.50mm ±0.05</b>
<b>P</b>	<b>12.0mm ±0.1</b>
<b>P0</b>	<b>4.0mm ±0.1</b>
<b>P2</b>	<b>2.0mm ±0.1</b>
<b>D0</b>	<b>Φ1.5mm ±0.1</b>
<b>A0</b>	<b>8.60mm ±0.1</b>
<b>K0</b>	<b>8.50mm ±0.1</b>
<b>B0</b>	<b>6.4mm ±0.1</b>

## Packaging Quantity

Part Number	Quantity	
	Per Tray	Per Carton
<b>HA2R8-xxxMSMD Series</b>	<b>500PCS</b>	<b>4000PCS</b>