

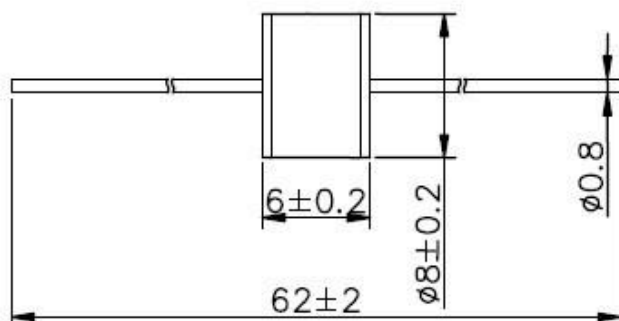
## 2-Electrode Gas Discharge Tubes

10KA

Axial Lead Wire



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:  $\leq 1\text{pF}$
- Small size :  $\Phi 8 \times 6(\text{mm})$
- 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	UL Certificate
	@100V/S	@100V/ $\mu\text{s}$	@1KV/ $\mu\text{s}$	G $\Omega$	10 Times	10x1000 $\mu\text{s}$	10times	
HA2R8-75ML	75V $\pm 20\%$	$\leq 500\text{V}$	$\leq 600\text{V}$	$> 1\text{G}\Omega$	10KA	100A	10A	E505240
HA2R8-90ML	90V $\pm 20\%$	$\leq 500\text{V}$	$\leq 600\text{V}$	$> 1\text{G}\Omega$	10KA	100A	10A	E505240
HA2R8-140ML	140V $\pm 20\%$	$\leq 500\text{V}$	$\leq 600\text{V}$	$> 1\text{G}\Omega$	10KA	100A	10A	E505240
HA2R8-150ML	150V $\pm 20\%$	$\leq 500\text{V}$	$\leq 600\text{V}$	$> 1\text{G}\Omega$	10KA	100A	10A	E505240
HA2R8-200ML	200V $\pm 20\%$	$\leq 600\text{V}$	$\leq 700\text{V}$	$> 1\text{G}\Omega$	10KA	100A	10A	E505240
HA2R8-230ML	230V $\pm 20\%$	$\leq 600\text{V}$	$\leq 700\text{V}$	$> 1\text{G}\Omega$	10KA	100A	10A	E505240
HA2R8-250ML	250V $\pm 20\%$	$\leq 600\text{V}$	$\leq 700\text{V}$	$> 1\text{G}\Omega$	10KA	100A	10A	E505240
HA2R8-260ML	260V $\pm 20\%$	$\leq 700\text{V}$	$\leq 800\text{V}$	$> 1\text{G}\Omega$	10KA	100A	10A	E505240
HA2R8-300ML	300V $\pm 20\%$	$\leq 800\text{V}$	$\leq 900\text{V}$	$> 1\text{G}\Omega$	10KA	100A	10A	E505240
HA2R8-350ML	350V $\pm 20\%$	$\leq 900\text{V}$	$\leq 1000\text{V}$	$> 1\text{G}\Omega$	10KA	100A	10A	E505240
HA2R8-400ML	400V $\pm 20\%$	$\leq 900\text{V}$	$\leq 1000\text{V}$	$> 1\text{G}\Omega$	10KA	100A	10A	E505240
HA2R8-420ML	420V $\pm 20\%$	$\leq 900\text{V}$	$\leq 1000\text{V}$	$> 1\text{G}\Omega$	10KA	100A	10A	E505240
HA2R8-470ML	470V $\pm 20\%$	$\leq 1100\text{V}$	$\leq 1200\text{V}$	$> 1\text{G}\Omega$	10KA	100A	10A	E505240
HA2R8-500ML	500V $\pm 20\%$	$\leq 1100\text{V}$	$\leq 1200\text{V}$	$> 1\text{G}\Omega$	10KA	100A	10A	E505240
HA2R8-550ML	550V $\pm 20\%$	$\leq 1300\text{V}$	$\leq 1400\text{V}$	$> 1\text{G}\Omega$	10KA	100A	10A	E505240
HA2R8-600ML	600V $\pm 20\%$	$\leq 1300\text{V}$	$\leq 1400\text{V}$	$> 1\text{G}\Omega$	10KA	100A	10A	E505240

## 4 Electrical Characteristics

Continue

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

## 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
HA2R8-75ML	<52V	20V	12KA	1KA	~1.5g
HA2R8-90ML	<52V	20V	12KA	1KA	~1.5g
HA2R8-140ML	<80V	20V	12KA	1KA	~1.5g
HA2R8-150ML	<80V	20V	12KA	1KA	~1.5g
HA2R8-200ML	<135V	20V	12KA	1KA	~1.5g
HA2R8-230ML	<135V	20V	12KA	1KA	~1.5g
HA2R8-250ML	<135V	20V	12KA	1KA	~1.5g
HA2R8-260ML	<135V	20V	12KA	1KA	~1.5g
HA2R8-300ML	<150V	20V	12KA	1KA	~1.5g
HA2R8-350ML	<150V	20V	12KA	1KA	~1.5g
HA2R8-400ML	<150V	20V	12KA	1KA	~1.5g
HA2R8-420ML	<150V	20V	12KA	1KA	~1.5g
HA2R8-470ML	<150V	20V	12KA	1KA	~1.5g
HA2R8-500ML	<150V	20V	12KA	1KA	~1.5g
HA2R8-550ML	<150V	20V	12KA	1KA	~1.5g
HA2R8-600ML	<150V	20V	12KA	1KA	~1.5g
HA2R8-800ML	<150V	20V	12KA	1KA	~1.5g
HA2R8-1000ML	<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

Specifications are subject to change without notice

2

## Environmental resistance

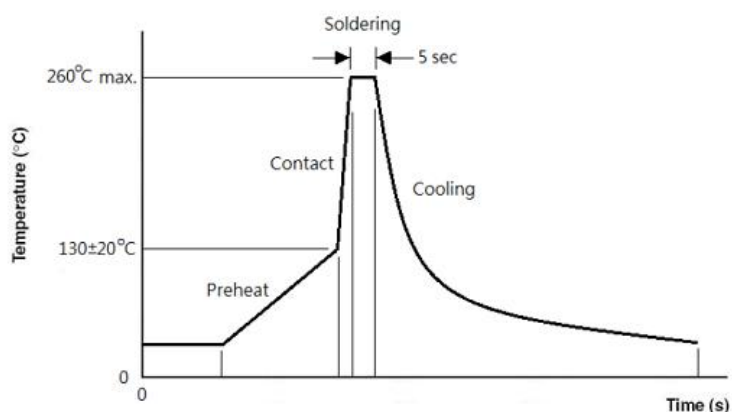
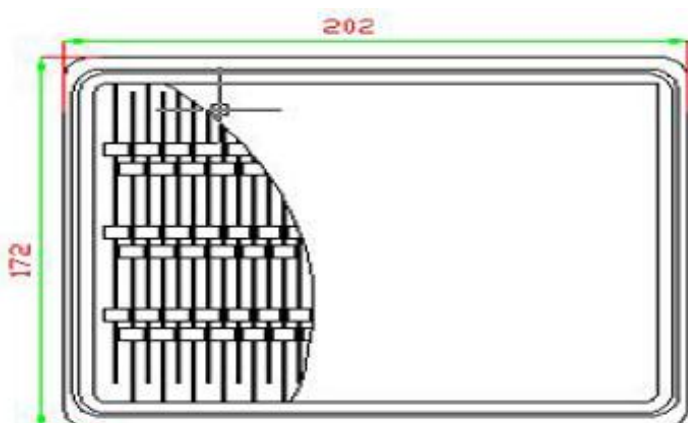
Storage temperature:	-40°C---+90°C
Operating temperature:	-40°C---+90°C
Electrode:	Tin Plated

## Example Part Number: HA2R8-90ML

HA	=	HUAAN
2	=	2 Electrode device
R	=	Gas Discharge Tube
8	=	8mm Diameter
90	=	90V
M	=	Medium Surge 10KA
L	=	Axial Lead Wire

## Packaging Information

## Reflow Soldering Curve



## Packaging Quantity

Part Number	Quantity	
	Per Tray	Per Carton
HA2R8-xxxML Series	100PCS	5000PCS