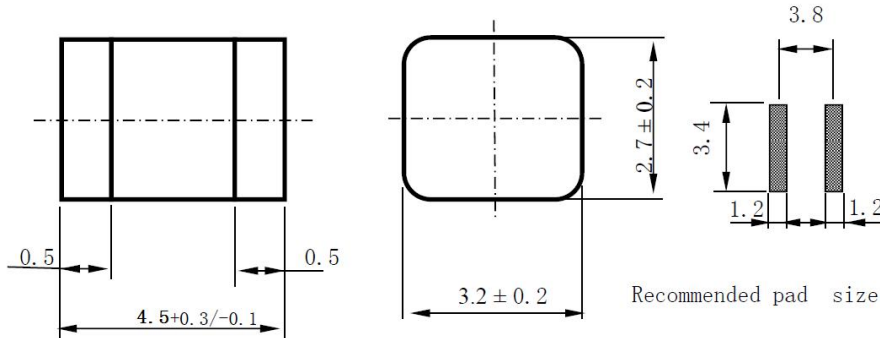


## 2-Electrode Gas Discharge Tubes

1: Dimension(mm)

2KA  
Surface Mount



### 2: Main Applications

- Transient Voltage Surge Suppression(TVSS)
- Cable Telephone Product
- Modems/Cable Modems
- Broadband/CATV/Coaxial Protectors
- Communication Lines

### 3: Features

- 100% Lead-Free(RoHs Compliant )
- Non-Radioactive
- Low capacitance  $\leq 0.5\text{pF}$
- Small size :4.5\*3.2\*2.7mm
- Safety certification: File number: E505240

### 4 Electrical Characteristics

Part Number	DC Spark-over Voltage@	Impulse Spark-over Voltage	Insulation Resistance	Impulse discharge current	Impulse Discharge Current 300hits	Impulse Withstanding Voltage 10hits	AC discharge current 50Hz, 1s	UL Certificate	Delivery Time
	100V/S	@1KV/ $\mu\text{s}$	G $\Omega$	8/20 $\mu\text{s}$	8/20 $\mu\text{s}$	10/700 $\mu\text{s}$	10times	UL497B	Days
HA2R3-75SMD	75V $\pm 25\%$	<600V	>1G $\Omega$	2KA	100A	4000V	1A	E505240	7days
HA2R3-90SMD	90V $\pm 20\%$	<600V	>1G $\Omega$	2KA	100A	4000V	1A	E505240	7days
HA2R3-140SMD	140V $\pm 20\%$	<600V	>1G $\Omega$	2KA	100A	4000V	1A	E505240	7days
HA2R3-150SMD	150V $\pm 20\%$	<600V	>1G $\Omega$	2KA	100A	4000V	1A	E505240	7days
HA2R3-200SMD	200V $\pm 20\%$	<700V	>1G $\Omega$	2KA	100A	4000V	1A	E505240	7days
HA2R3-230SMD	230V $\pm 20\%$	<700V	>1G $\Omega$	2KA	100A	4000V	1A	E505240	7days
HA2R3-250SMD	250V $\pm 20\%$	<800V	>1G $\Omega$	2KA	100A	4000V	1A	E505240	7days
HA2R3-300SMD	300V $\pm 20\%$	<900V	>1G $\Omega$	2KA	100A	4000V	1A	E505240	7days
HA2R3-350SMD	350V $\pm 20\%$	$\leq 1000\text{V}$	>1G $\Omega$	2KA	100A	4000V	1A	E505240	7days
HA2R3-400SMD	400V $\pm 20\%$	$\leq 1000\text{V}$	>1G $\Omega$	2KA	100A	4000V	1A	E505240	7days
HA2R3-420SMD	420V $\pm 20\%$	$\leq 1000\text{V}$	>1G $\Omega$	2KA	100A	4000V	1A	E505240	7days
HA2R3-470SMD	470V $\pm 20\%$	$\leq 1200\text{V}$	>1G $\Omega$	2KA	100A	4000V	1A	E505240	7days
HA2R3-500SMD	500V $\pm 20\%$	$\leq 1200\text{V}$	>1G $\Omega$	2KA	100A	4000V	1A	E505240	7days
HA2R3-600SMD	600V $\pm 20\%$	$\leq 1400\text{V}$	>1G $\Omega$	2KA	100A	4000V	1A	E505240	7days

Specifications are subject to change without notice

1

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4 Electrical Characteristics

Continue

Part Number	Impulse Spark-over Voltage	Arc voltage at 1 A	Glow to arc transition current	Glow voltage	Weight
	@100V/ $\mu$ s	V	A	V	g
HA2R3-75SMD	<400V	~ 8V	< 0.2A	~ 50V	0.2g
HA2R3-90SMD	<500V	~ 8V	< 0.2A	~ 50V	0.2g
HA2R3-140SMD	<500V	~ 8V	< 0.2A	~ 50V	0.2g
HA2R3-150SMD	<500V	~ 8V	< 0.2A	~ 50V	0.2g
HA2R3-200SMD	<500V	~ 8V	< 0.2A	~ 50V	0.2g
HA2R3-230SMD	<650V	~ 8V	< 0.4A	~ 55V	0.2g
HA2R3-250SMD	<650V	~ 8V	< 0.4A	~ 55V	0.2g
HA2R3-300SMD	<700V	~ 10V	< 0.4A	~ 55V	0.2g
HA2R3-350SMD	<750V	~ 22V	< 0.2A	~ 55V	0.2g
HA2R3-400SMD	<800V	~ 10V	< 0.2A	~ 55V	0.2g
HA2R3-420SMD	<800V	~ 10V	< 0.4A	~ 55V	0.2g
HA2R3-470SMD	<900V	~ 20V	< 0.2A	~ 150V	0.2g
HA2R3-500SMD	<950V	~ 20V	< 0.2A	~ 150V	0.2g
HA2R3-600SMD	<1100V	~ 20V	< 0.2A	~ 150V	0.2g

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

According to the demand of customer, can do all kinds of voltage

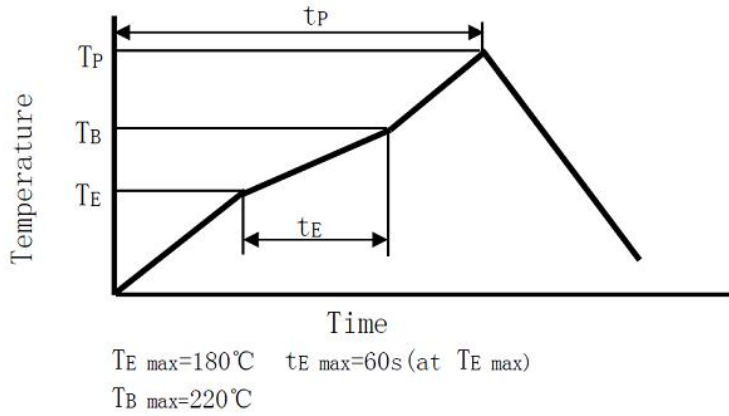
Environmental resistance

Storage temperature:	-40°C----+90°C
Operating temperature:	-40°C----+90°C
Body Material:	Sn Plating

Example Part Number: HA2R3-90SMD

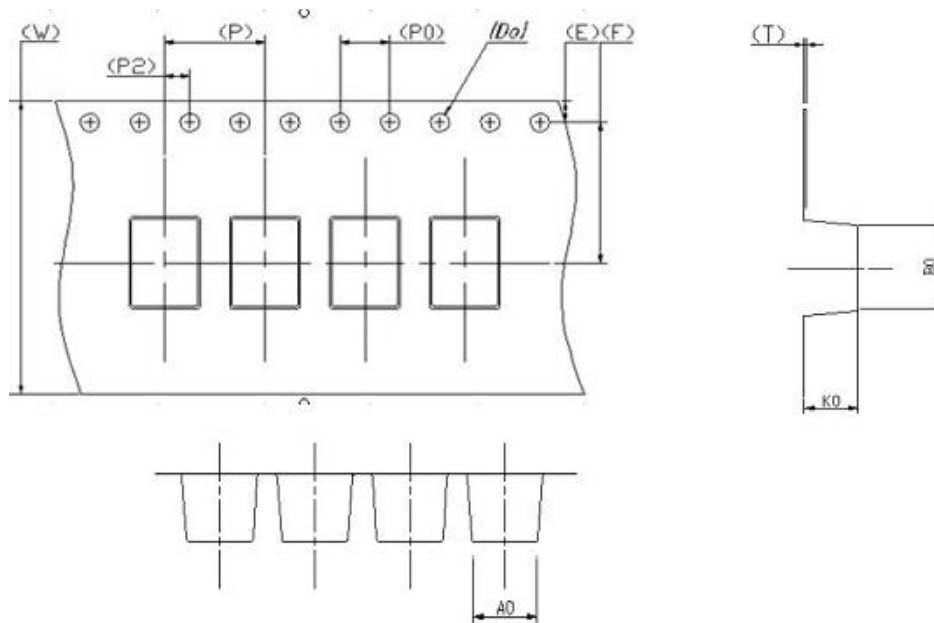
HA	=	HUAAN
2	=	2 Electrode device
R	=	Gas Discharge Tube
3	=	3mm Diameter
90	=	90V
SMD	=	Surface Mounted Device

## Reflow Soldering Curve



## Tape Specification and Reel Dimensions

### Tape



Symbol	Dimensions(mm)
W	16.0mm ±0.3
E	1.75mm ±0.1
F	7.5mm ±0.1
T	0.35mm ±0.05
P	8.0mm ±0.1
P0	4.0mm ±0.1
P2	2.0mm ±0.1
D0	Φ1.5mm ±0.1
A0	3.4mm ±0.1
K0	3.0mm ±0.1
B0	5.0mm ±0.1

## Packaging Quantity

Part Number	Quantity	
	Per Reel	Per Carton
HA2R3-xxxSMD Series	2000PCS	16000PCS