

## GDT Gas Discharge Tubes

YINT /  
GDT

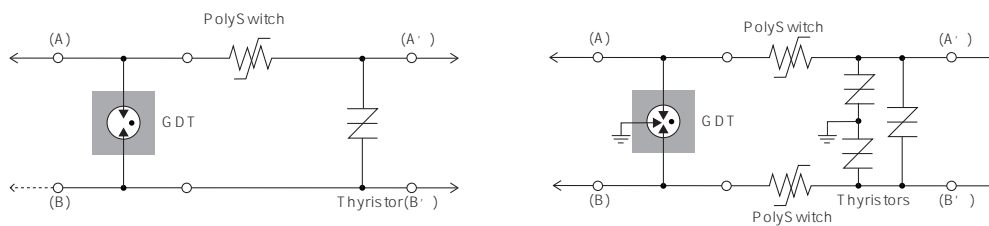
Gas discharge tubes eliminate the surge voltage by the principle of gas ionization discharge. They have high insulation resistance, low capacitance and low leakage current to ensure minimal effect on normal operation of equipment.

YINT provides high-performance and small size packaging (DIP/SMD) gas discharge tubes with fast response speed and surge suppression capability, which reduces the risk of equipment damage, this is also a good choice for protecting devices from damaging by surge current caused by lightning, especially suitable for outdoor telecommunications equipment.

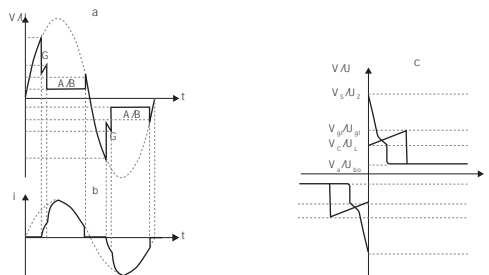
## Feature

- ▲ High insulation resistance
- ▲ Crowbar overvoltage protection
- ▲ Low capacitance and insertion loss
- ▲ 70V - 3000V Voltage from 70V to 3000V
- ▲ Surge current up to several hundred thousand Amps

## Application



## Limitation of a sinusoidal overvoltage by a surge arrester

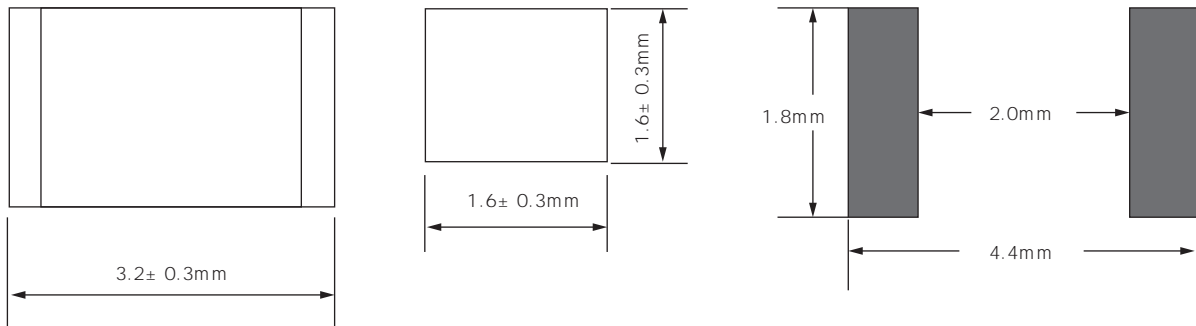


- a : shows the voltage curve at the arrester  
 b : the current as a function of time when limiting a sinusoidal voltage surge.  
 c : The  $V/A$  characteristic of the surge arrester was obtained by combining the graphs of voltage and current as a function of time.

SMD1206 Series Electrical Characteristics

Model	Resistance	Voltage	Power	Life	Capacitance	Surge Current	Surge Voltage
SMD1206-091	90+30%	<750	50	1000	0.3	0.5KA	4KV
SMD1206-151	150+30%	<750	50	1000	0.3	0.5KA	4KV
SMD1206-201	200+30%	<950	100	1000	0.3	0.5KA	4KV
SMD1206-231	230+30%	<950	100	1000	0.3	0.5KA	4KV
SMD1206-301	300+30%	<950	100	1000	0.3	0.5KA	4KV
SMD1206-351	350+30%	<950	100	1000	0.3	0.5KA	4KV
SMD1206-401	400+30%	<1050	100	1000	0.3	0.5KA	4KV
SMD1206-421	420+30%	<1050	100	1000	0.3	0.5KA	4KV
SMD1206-471	470+30%	<1050	100	1000	0.3	0.5KA	4KV

PACKAGE OUTLINE DIMENSIONS in millimeters :SMD1206



Mounting Pad Layout



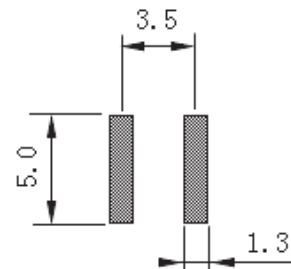
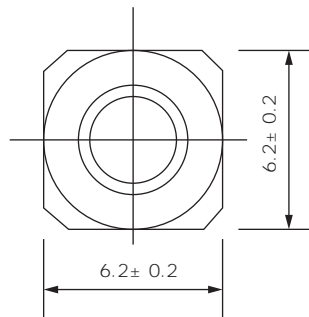
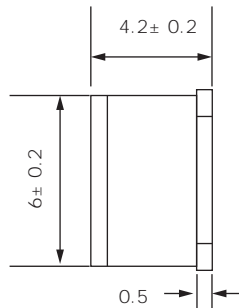
2R\*\*\*S - 6x 4.2 Series Electrical Characteristics (TA = 25 °C unless otherwise noted)

Part Number	Rated Voltage (V)	Voltage Tolerance (%)	Maximum Voltage (V)	Maximum Current (KA)	Maximum Current (A)	Maximum Energy (J)	Capacitance (pF)
2R 075S - 6x 4.2	75V	± 20%	600V	5KA	5A	10	1pF
2R 090S - 6x 4.2	90V	± 20%	600V	5KA	5A	10	1pF
2R 150S - 6x 4.2	150V	± 20%	600V	5KA	5A	10	1pF
2R 200S - 6x 4.2	200V	± 20%	700V	5KA	5A	10	1pF
2R 230S - 6x 4.2	230V	± 20%	700V	5KA	5A	10	1pF
2R 300S - 6x 4.2	300V	± 20%	900V	5KA	5A	10	1pF
2R 350S - 6x 4.2	350V	± 20%	1000V	5KA	5A	10	1pF
2R 400S - 6x 4.2	400V	± 20%	1000V	5KA	5A	10	1pF
2R 470S - 6x 4.2	470V	± 20%	1200V	5KA	5A	10	1pF
2R 600S - 6x 4.2	600V	± 20%	1400V	5KA	5A	10	1pF
2R 1000S - 6x 4.2	1000V	± 20%	1800V	3KA	5A	1	1pF

- 1) At delivery AQL 0.65 leave Military Standard 105 E.
- 2) In ionized mode
- 3) Test according to ITU - T Rec.k.12

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Specification Status: Draft mm



Recommended pad size

## 2R\*\*\*S-8x6 Series Electrical Characteristics (TA = 25 °C unless otherwise noted)

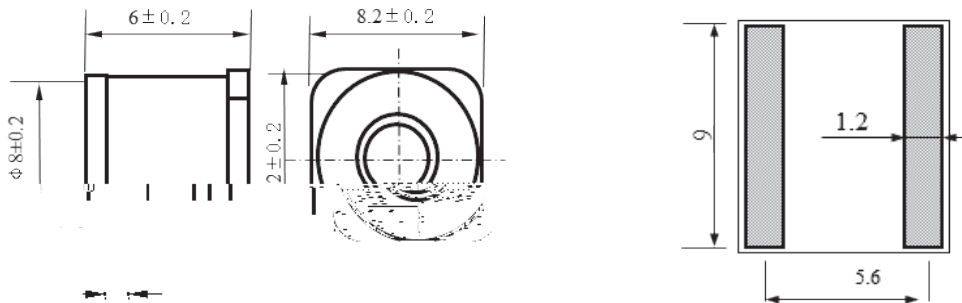
Model	Rated Voltage (V)	Voltage Tolerance (%)	Rated Voltage (V)	Rated Current (A)	Rated Current (A)	Rated Current (A)	Rated Current (A)
2R075S-8x6	75V	± 20%	600V	10KA	10A	10	1pF
2R090S-8x6	90V	± 20%	600V	10KA	10A	10	1pF
2R150S-8x6	150V	± 20%	700V	10KA	10A	10	1pF
2R200S-8x6	200V	± 20%	700V	10KA	10A	10	1pF
2R230S-8x6	230V	± 20%	700V	10KA	10A	10	1pF
2R300S-8x6	300V	± 20%	900V	10KA	10A	10	1pF
2R350S-8x6	350V	± 20%	1000V	10KA	10A	10	1pF
2R400S-8x6	400V	± 20%	1000V	10KA	10A	10	1pF
2R470S-8x6	470V	± 20%	1200V	10KA	10A	10	1pF
2R600S-8x6	600V	± 20%	1400V	10KA	10A	10	1pF

1) At delivery AQL 0.65 leave Military Standard 105 E.

2) In ionized mode

3) Test according to ITU-T Rec.K.12

Specification Status: Draft mm



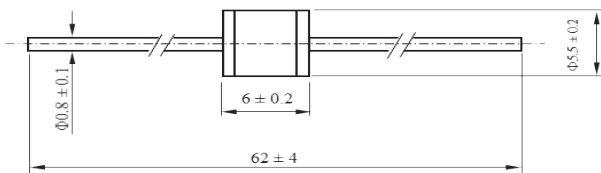
2R\*\*\*L - 5.5x 6 Series Electrical Characteristics (TA = 25 °C unless otherwise noted)

Model	Rated Voltage (V)	Voltage Tolerance (%)	Rated Current (A)	Rated Power (W)	Rated Energy (J)	Rated Time (s)	Rated Capacitance (pF)
2R 075L - 5.5x 6	75V	± 20%	600V	5KA	5A	10	1pF
2R 090L - 5.5x 6	90V	± 20%	600V	5KA	5A	10	1pF
2R 150L - 5.5x 6	150V	± 20%	600V	5KA	5A	10	1pF
2R 200L - 5.5x 6	200V	± 20%	700V	5KA	5A	10	1pF
2R 230L - 5.5x 6	230V	± 20%	700V	5KA	5A	10	1pF
2R 300L - 5.5x 6	300V	± 20%	900V	5KA	5A	10	1pF
2R 350L - 5.5x 6	350V	± 20%	1000V	5KA	5A	10	1pF
2R 400L - 5.5x 6	400V	± 20%	1000V	5KA	5A	10	1pF
2R 470L - 5.5x 6	470V	± 20%	1200V	5KA	5A	10	1pF
2R 600L - 5.5x 6	600V	± 20%	1400V	5KA	5A	10	1pF
2R 1000L - 5.5x 6	1000V	± 20%	2000V	3KA	3A	1	1pF

- 1) At delivery AQL 0.65 leave Military Standard 105 E.
- 2) In ionized mode
- 3) Test according to ITU - T Rec.k.12

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Specification Status: Draft mm



## 2R\*\*\*L- 8× 6 Series Electrical Characteristics (TA = 25° C unless otherwise noted)

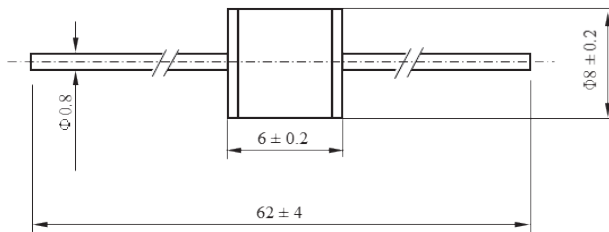
2R 075L- 8× 6	75V	± 20%	600V	10KA	10A	10	1pF
2R 090L- 8× 6	90V	± 20%	600V	10KA	10A	10	1pF
2R 150L- 8× 6	150V	± 20%	600V	10KA	10A	10	1pF
2R 200L- 8× 6	200V	± 20%	700V	10KA	10A	10	1pF
2R 230L- 8× 6	230V	± 20%	700V	10KA	10A	10	1pF
2R 300L- 8× 6	300V	± 20%	900V	10KA	10A	10	1pF
2R 350L- 8× 6	350V	± 20%	1000V	10KA	10A	10	1pF
2R 400L- 8× 6	400V	± 20%	1000V	10KA	10A	10	1pF
2R 470L- 8× 6	470V	± 20%	1200V	10KA	10A	10	1pF
2R 600L- 8× 6	600V	± 20%	1400V	10KA	10A	10	1pF

1) At delivery AQL 0.65 leave Military Standard 105 E.

2) In ionized mode

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

Specification Status: Draft mm



## 3R\*\*\*S - 5× 7.6 Series Electrical Characteristics (TA = 25 °C unless otherwise noted)

3R 075S - 5× 7.6	75V	± 20%	600V	5KA	5A	10	1pF
3R 090S - 5× 7.6	90V	± 20%	600V	5KA	5A	10	1pF
3R 150S - 5× 7.6	150V	± 20%	600V	5KA	5A	10	1pF
3R 200S - 5× 7.6	200V	± 20%	700V	5KA	5A	10	1pF
3R 230S - 5× 7.6	230V	± 20%	700V	5KA	5A	10	1pF
3R 300S - 5× 7.6	300V	± 20%	900V	5KA	5A	10	1pF
3R 350S - 5× 7.6	350V	± 20%	1000V	5KA	5A	10	1pF
3R 400S - 5× 7.6	400V	± 20%	1000V	5KA	5A	10	1pF
3R 470S - 5× 7.6	470V	± 20%	1200V	5KA	5A	10	1pF
3R 600S - 5× 7.6	600V	± 20%	1400V	5KA	5A	10	1pF

1) At delivery AQL 0.65 leave Military Standard 105 E.



3R\*\*\*S - 6x 8 Series Electrical Characteristics (T<sub>A</sub> = 25 ° C unless otherwise noted)

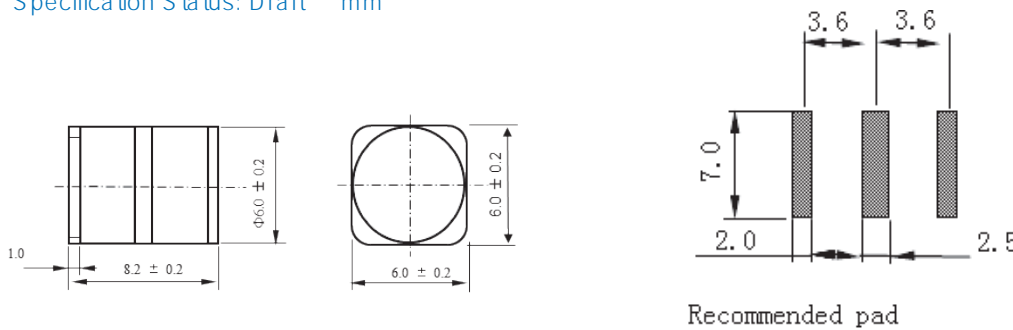
Model	Rated Voltage (V)	Voltage Tolerance (%)	Rated Voltage (V)	Rated Current (A)	Rated Current (A)	Rated Voltage (V)	Rated Current (A)
3R075S - 6x 8	75V	± 20%	600V	10KA	10A	10	1pF
3R090S - 6x 8	90V	± 20%	600V	10KA	10A	10	1pF
3R150S - 6x 8	150V	± 20%	600V	10KA	10A	10	1pF
3R200S - 6x 8	200V	± 20%	700V	10KA	10A	10	1pF
3R230S - 6x 8	230V	± 20%	700V	10KA	10A	10	1pF
3R300S - 6x 8	300V	± 20%	900V	10KA	10A	10	1pF
3R350S - 6x 8	350V	± 20%	1000V	10KA	10A	10	1pF
3R400S - 6x 8	400V	± 20%	1000V	10KA	10A	10	1pF
3R470S - 6x 8	470V	± 20%	1200V	10KA	10A	10	1pF
3R600S - 6x 8	600V	± 20%	1400V	10KA	10A	10	1pF

1) At delivery AQL 0.65 leave Military Standard 105 E.

2) In ionized mode

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

Specification Status: Draft mm



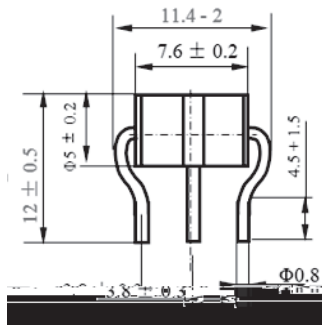
3R\*\*\*L - 5x 7.6 Series Electrical Characteristics (TA = 25 °C unless otherwise noted)

Part Number	Rated Voltage (V)	Voltage Tolerance (%)	Maximum Voltage (V)	Rated Current (A)	Maximum Current (A)	Time to Glow (ms)	Capacitance (pF)
3R 075L - 5x 7.6	75V	± 20%	600V	5KA	5A	10	1pF
3R 090L - 5x 7.6	90V	± 20%	600V	5KA	5A	10	1pF
3R 150L - 5x 7.6	150V	± 20%	600V	5KA	5A	10	1pF
3R 200L - 5x 7.6	200V	± 20%	700V	5KA	5A	10	1pF
3R 230L - 5x 7.6	230V	± 20%	700V	5KA	5A	10	1pF
3R 300L - 5x 7.6	300V	± 20%	900V	5KA	5A	10	1pF
3R 350L - 5x 7.6	350V	± 20%	1000V	5KA	5A	10	1pF
3R 400L - 5x 7.6	400V	± 20%	1000V	5KA	5A	10	1pF
3R 470L - 5x 7.6	470V	± 20%	1200V	5KA	5A	10	1pF
3R 600L - 5x 7.6	600V	± 20%	1400V	5KA	5A	10	1pF

- 1) At delivery AQL 0.65 leave Military Standard 105 E.
- 2) In Ionized mode
- 3) Test according to ITU - T Rec.k.12

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Specification Status: Draft mm



## 3R\*\*\*L- 6x 8 Series Electrical Characteristics (TA = 25 ° C unless otherwise noted)

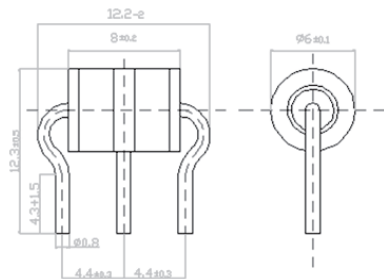
3R075L- 6x 8	75V	± 20%	600V	10KA	10A	10	1pF
3R090L- 6x 8	90V	± 20%	600V	10KA	10A	10	1pF
3R150L- 6x 8	150V	± 20%	600V	10KA	10A	10	1pF
3R200L- 6x 8	200V	± 20%	700V	10KA	10A	10	1pF
3R230L- 6x 8	230V	± 20%	700V	10KA	10A	10	1pF
3R300L- 6x 8	300V	± 20%	900V	10KA	10A	10	1pF
3R350L- 6x 8	350V	± 20%	1000V	10KA	10A	10	1pF
3R400L- 6x 8	400V	± 20%	1000V	10KA	10A	10	1pF
3R470L- 6x 8	470V	± 20%	1200V	10KA	10A	10	1pF
3R600L- 6x 8	600V	± 20%	1400V	10KA	10A	10	1pF

1) At delivery AQL 0.65 leave Military Standard 105 E.

2) In ionized mode

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

Specification Status: Draft mm

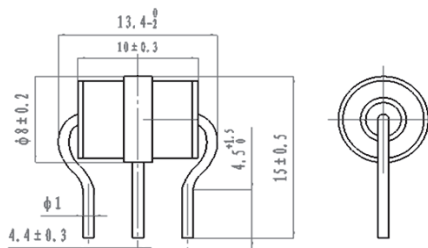


3R\*\*\*L - 8x 10 Series Electrical Characteristics (TA = 25 ° C unless otherwise noted)

Model	Rated Voltage (V)	Voltage Tolerance (%)	Rated Current (mA)	Rated Power (W)	Rated Current (A)	Rated Power (W)	Capacitance (pF)
3R 075L - 8x 10	75V	± 20%	600V	10KA	10A	10	1pF
3R 090L - 8x 10	90V	± 20%	600V	10KA	10A	10	1pF
3R 150L - 8x 10	150V	± 20%	600V	10KA	10A	10	1pF
3R 200L - 8x 10	200V	± 20%	700V	10KA	10A	10	1pF
3R 230L - 8x 10	230V	± 20%	700V	10KA	10A	10	1pF
3R 300L - 8x 10	300V	± 20%	900V	10KA	10A	10	1pF
3R 350L - 8x 10	350V	± 20%	1000V	10KA	10A	10	1pF
3R 400L - 8x 10	400V	± 20%	1000V	10KA	10A	10	1pF
3R 470L - 8x 10	470V	± 20%	1200V	10KA	10A	10	1pF
3R 600L - 8x 10	600V	± 20%	1400V	10KA	10A	10	1pF

- 1) At delivery AQL 0.65 leave Military Standard 105 E.
- 2) In ionized mode
- 3) Test according to ITU - T Rec.k.12

Specification Status: Draft mm



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