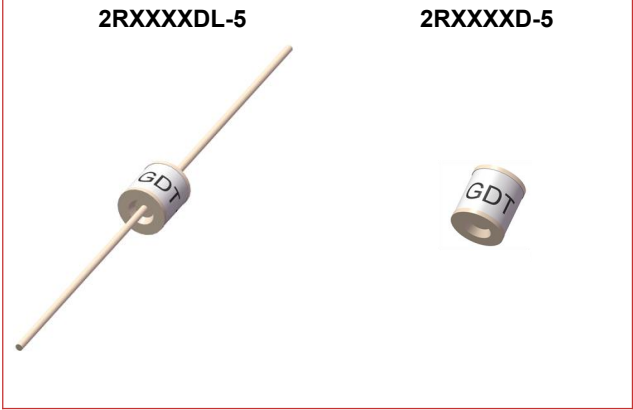


# High Voltage 2-Electrode Gas Discharge Tube (GDT)

## 2RXXXXD-5 Series

### Description

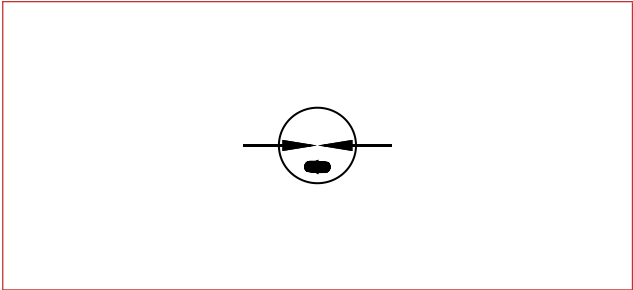
The high voltage (1.0-3.5KV) gas discharge tubes are designed for surge protection and high isolation applications, and for applications for which bias voltages or signal levels of several hundred volts are normally present.



### Features

- ◆ Non-Radioactive
- ◆ Low insertion loss
- ◆ Excellent response to fast rising transients
- ◆ Ultra low capacitance
- ◆ 2.5KA surge capability tested with 8/20μs pulse as defined by IEC 61000-4-5

### Schematic Symbol



### Applications

- ◆ CRT terminals
- ◆ CATV equipment
- ◆ Antennas
- ◆ Power supplies
- ◆ Medical electronics

### Product Characteristics

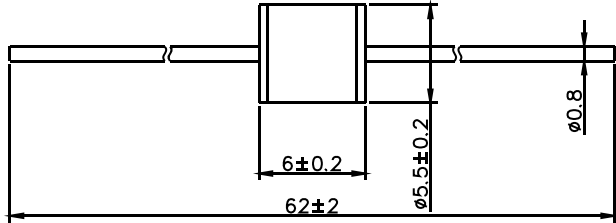
Materials	Nickel-plated with Tinplated wires	
Product Marking	<b>GDT    XXXXD</b> XXXX    -Nominal voltage D        -2.5KA	
Glow to Arc Transition Current	< 0.5Amps	
Glow Voltage	~180 Volts	
Storage and Operational Temperature	-40 to +90°C	
Weight	2RXXXXDL-5	~1.0g
	2RXXXXD-5	~0.85g
Climatic category (IEC 60068-1)	40/ 90/ 21	

# High Voltage 2-Electrode Gas Discharge Tube (GDT)

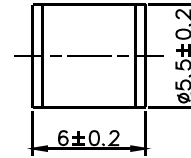
## 2RXXXXD-5 Series

### Dimensions (Unit: mm)

Axial Leaded Devices (2RXXXXDL-5)



Without wire Devices (2RXXXXD-5)



### Electrical Characteristics

Part Number	Marking	DC Spark-over Voltage	Maximum Impulse Spark-over Voltage		Minimum Insulation Resistance	Maximum Capacitance	Arc Voltage	Service Life	
			@100V/S	@100V/μs	@1KV/μs			Nominal Impulse Discharge Current	Max Impulse Discharge Current
2R1000DL-5 2R1000D-5	GDT 1000D	1000V±30%	<1500V	<1600V	1 GΩ (at 100V)	<1.0pF	~25V	2.5KA	5KA
2R1600DL-5 2R1600D-5	GDT 1600D	1600V±30%	<2200V	<2400V	1 GΩ (at 100V)	<1.0pF	~25V	2.5KA	5KA
2R2000DL-5 2R2000D-5	GDT 2000D	2000V±30%	<3000V	<3500V	1 GΩ (at 100V)	<1.0pF	~25V	2.5KA	5KA
2R2500DL-5 2R2500D-5	GDT 2500D	2500V±30%	<3800V	<4000V	1 GΩ (at 100V)	<1.0pF	~25V	2.5KA	5KA
2R2700DL-5 2R2700D-5	GDT 2700D	2700V±30%	<3800V	<4000V	1 GΩ (at 100V)	<1.0pF	~25V	2.5KA	5KA
2R3000DL-5 2R3000D-5	GDT 3000D	3000V±30%	<4300V	<4500V	1 GΩ (at 100V)	<1.0pF	~25V	2.5KA	5KA
2R3500DL-5 2R3500D-5	GDT 3500D	3500V±30%	<4800V	<5000V	1 GΩ (at 100V)	<1.0pF	~25V	2.5KA	5KA

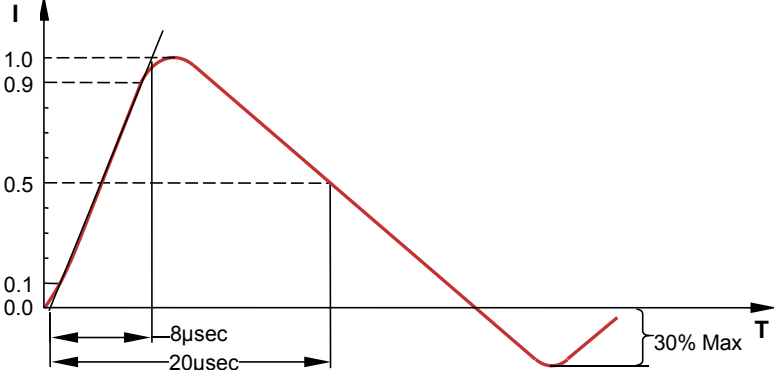
**Notes:**

- 1). Terms in accordance with ITU-T K.12 and GB/T 9043-2008
- 2). At delivery AQL 0.65 level II, DIN ISO 2859

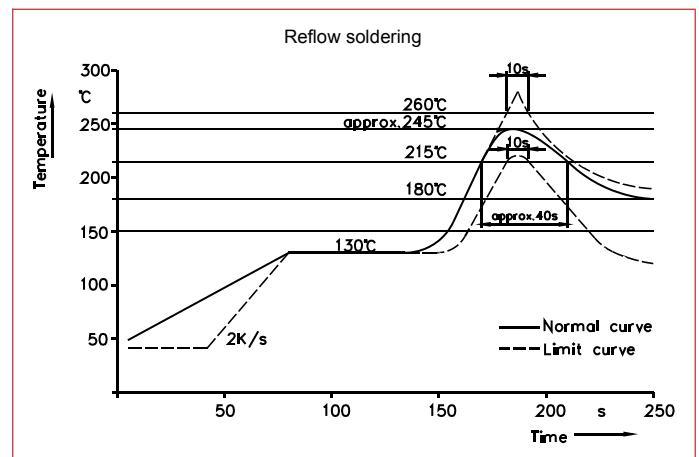
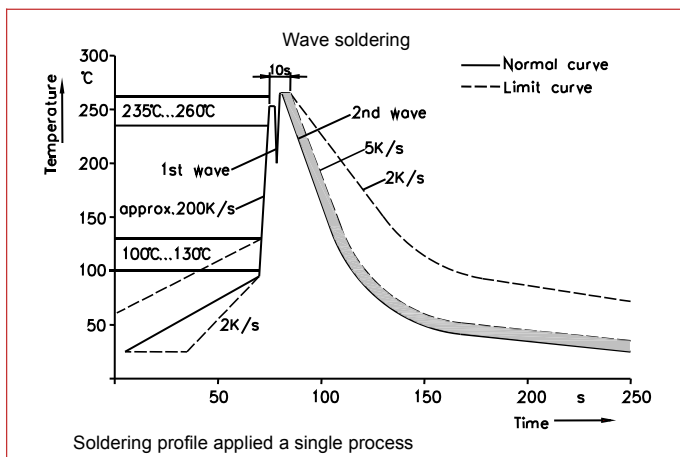
# High Voltage 2-Electrode Gas Discharge Tube (GDT)

## 2RXXXXD-5 Series

### Electrical Rating

Item	Test Condition / Description	Requirement
<b>DC Spark-over Voltage</b>	The voltage is measured with a slowly rate of rise $dv / dt = 100V/s$	To meet the specified value
<b>Impulse Spark-over Voltage</b>	The maximum impulse spark-over voltage is measured with a rise time of $dv / dt = 100V/\mu s$ or $1KV/\mu s$	
<b>Insulation Resistance</b>	The resistance of gas tube shall be measured each terminal each other terminal, please see above spec.	
<b>Capacitance</b>	The capacitance of gas tube shall be measured each terminal to each other terminal. Test frequency :1MHz	
<b>Nominal Impulse Discharge Current</b>	<p>The maximum current applying a waveform of 8/20<math>\mu s</math> that can be applied across the terminals of the gas tube. One hour after the test is completed, re-testing of the DC spark-over voltage does not exceed <math>\pm 30\%</math> of the nominal DC spark-over voltage. Dwell time between pulses is 3 minutes.</p> 	

### Recommended Soldering Profile



### Soldering Parameters - Hand Soldering

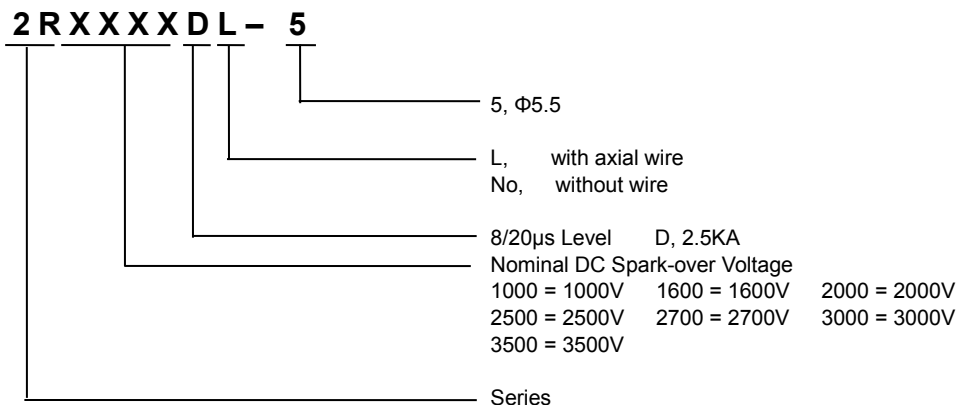
Solder Iron Temperature:  $350^{\circ}C \pm 5^{\circ}C$

Heating Time: 5 seconds max.

# High Voltage 2-Electrode Gas Discharge Tube (GDT)

## 2RXXXX-5 Series

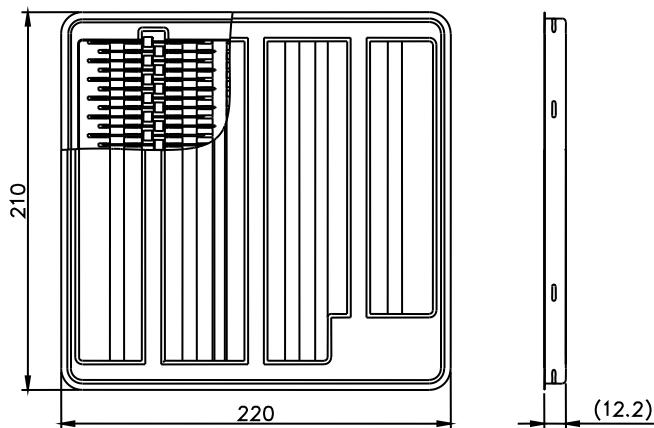
### Part Numbering



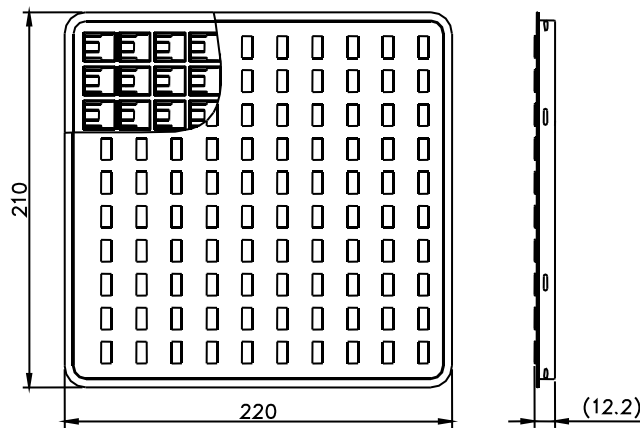
### Packaging Information

Part Number	Description	Quantity
2RXXXXDL-5	100PCS per Tray, 10 Trays / Inner Carton	1000 PCS
2RXXXX-5	100PCS per Tray, 10 Trays / Inner Carton	1000 PCS

Tray used in 2RXXXXDL-5



Tray used in 2RXXXX-5



### Cautions and Warnings

- ◆ Gas discharge tubes (GDT) must not be operated directly in power supply networks.
- ◆ Gas discharge tubes (GDT) may become hot in case of longer periods of current stress (danger of burning).
- ◆ Gas discharge tubes (GDT) may be used only within their specified values. In the event of overload, the head contacts may fail or the component may be destroyed.
- ◆ Damaged Gas discharge tubes (GDT) must not be re-used.