

## Gas Discharge Tubes(GDT)

## 3RLB-6 Series

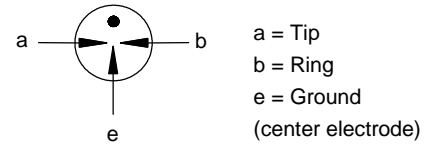
### Description

GDT is placed in front of, and in parallel with, sensitive telecom equipment such as power lines, communication lines, signal lines and data transmission lines to help protect them from damage caused by transient surge voltages that may result from lightning strikes and equipment switching operations. These devices do not influence the signal in normal operation. However, in the event of an overvoltage surge, such as a lightning strike, the GDT switches to a low impedance state and diverts the energy away from the sensitive equipment.

Our GDT offer a high level of surge protection, a broad voltage range, low capacitance, and many form factors including new surface mount devices, which makes them suitable for applications such as Main Distribution Frame (MDF) modules, high data-rate telecom applications (e.g. ADSL, VDSL), and surge protection on power lines. Their low capacitance also results in less signal distortion. When used in a coordinated circuit protection solution with PolySwitch devices, they can help equipment manufacturers meet stringent safety regulatory standards.



### Electrical symbol



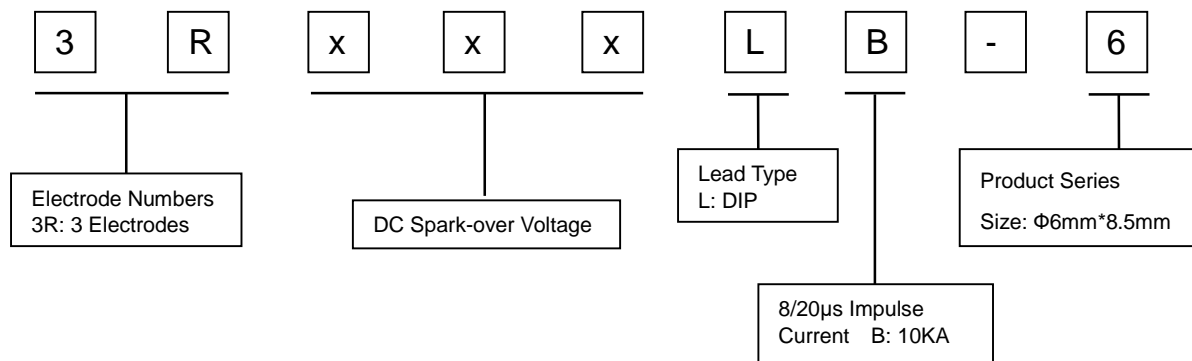
### Features

- I Excellent response to fast rising transients
- I Stable breakdown voltage
- I GHz working frequency
- I 8/20 $\mu$ s Impulse current capability: 10KA
- I Non-Radioactive
- I Ultra Low capacitance (<1.5pF)
- I High insulation resistance
- I Size:  $\Phi$ 6mm\*8.5mm
- I Storage and operational temperature: -40~+90°C

### Applications

- I Communication equipment
- I CATV equipment
- I Data lines
- I Power supplies
- I Telecom SLIC protection
- I Broadband equipment
- I ADSL equipment, including ADSL2+
- I XDSL equipment
- I Satellite and CATV equipment
- I Test equipment
- I Consumer electronics

### Part Number Code



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### Electrical Characteristics

Part Number	DC Spark-over Voltage @100V/S <sup>1) 2) 3)</sup>	Impulse Spark-over Voltage <sup>3)</sup>		Insulation Resistance <sup>4)</sup>	Capacitance @1MHz	Life Ratings			
		100V/μS	1KV/μS			Impulse Discharge Current @8/20μs <sup>5)</sup>		Alternating Discharge Current @50Hz 1S <sup>5)</sup>	Impulse Life @10/1000μS
		Max	Max			±5 times	1 time	5 times	300 times
		V	V			KA	KA	A	A
3R070LB-6	70±20%	500	600	1	1.5	10	15	10	100
3R075LB-6	75±20%	500	600	1	1.5	10	15	10	100
3R090LB-6	90±20%	750	850	1	1.5	10	15	10	100
3R150LB-6	150±20%	750	850	1	1.5	10	15	10	100
3R230LB-6	230±20%	600	700	1	1.5	10	15	10	100
3R250LB-6	250±20%	600	700	1	1.5	10	15	10	100
3R300LB-6	300±20%	700	900	1	1.5	10	15	10	100
3R350LB-6	350±20%	700	900	1	1.5	10	15	10	100
3R400LB-6	400±20%	800	1000	1	1.5	10	15	10	100
3R470LB-6	470±20%	900	1100	1	1.5	10	15	10	100
3R600LB-6	600±20%	1100	1300	1	1.5	10	15	10	100
Glow Voltage at 10mA.....				~60V					
Arc Voltage at 1A.....				~10V					
Glow to Arc transition Current.....				~1A					
Operation and storage temperature.....				-40~+90°C					
Climatic category (IEC60068-1).....				40/90/21					
Marking, Black.....				<b>RUILON</b> <b>xxx B Y</b> xxx -Nominal voltage B -Nominal Impulse Discharge Current Y -Year of production					
Weight.....				~1.25g					
Surface treatment.....				Nickel Plated					

<sup>1)</sup> At delivery AQL 0.65 level II, DIN ISO 2859

<sup>2)</sup> In ionized mode

<sup>3)</sup> Tip or ring electrode to center electrode

<sup>4)</sup> Insulation Resistance Measuring Voltage:

75V~150V at DC 50V

Other at DC 100V

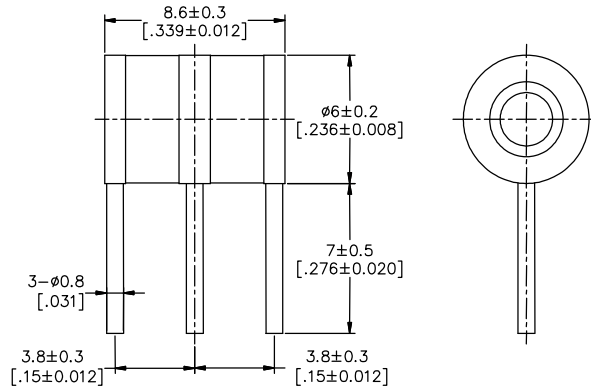
<sup>5)</sup> Total current through center electrode, half value through tip respectively ring electrode.

Terms in accordance with ITU-T Rec. K.12, IEC 61643-311, GB/T18802.311, GB/T 9043.

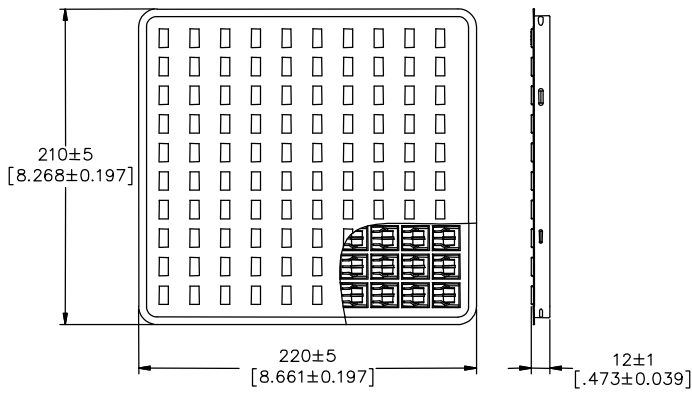
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**Dimensions (Unit: mm/inch)**



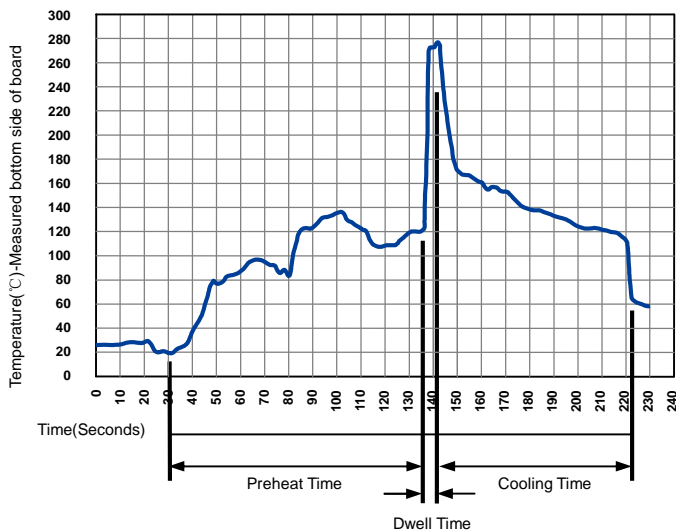
**Packaging Information (Unit: mm/inch)**



100PCS/ Plastic Tray

500PCS, 5 Plastic Trays / Inner Box

**Soldering Parameters - Wave soldering (Thru-Hole Devices)**



Wave Soldering Condition		Pb-Free assembly
Preheat	Temperature Min	100°C
	Temperature Max	150°C
	Time (Min to Max)	60-180 Seconds
Solder Pot Temperature		280°C Max
Solder Dwell Time		2-5 Seconds