

**3RB-8 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**

**Applications** 

equipment

Data lines

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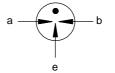
Communication

**CATV** equipment

Power supplies

Telecom SLIC protection

Broadband equipment



a = Tip b = Ring e = Ground (center electrode)

ADSL equipment,

including ADSL2+

**XDSL** equipment

Test equipment

equipment

Satellite and CATV

**Consumer electronics** 

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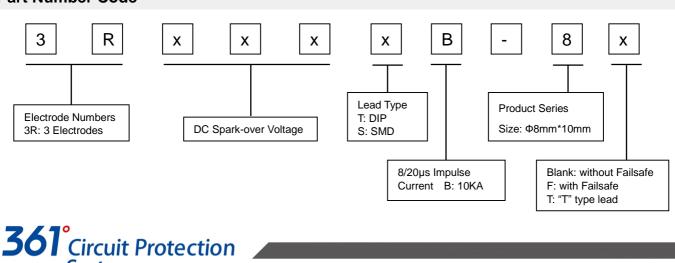
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## Features

- I Excellent response to fast rising transients
- I Stable breakdown voltage
- I GHz working frequency
- I 8/20µs Impulse current capability: 10KA
- I Non-Radioactive
- I Ultra Low capacitance (<1.5pF)
- I High insulation resistance
- I Lead-free compliant
- I RoHS and REACH compliant
- I UL 497B Recognized: E465335
- I Size: Φ8mm\*10mm
- I Storage and operational temperature: -40~+90°C

## **Part Number Code**



Specifications are subject to change without notice. Please refer to http://www.ruilon.com.cn for current information.

System



**3RB-8 Series** 

## **Electrical Characteristics**

			DC Vo Spark-over Voltage <sup>1) 2) 3)</sup> 100V/µ @100V/S		npulse			Life Ratings				
SPart Number V				Spark-over Voltage <sup>3)</sup> 100V/µS 1KV/µS		Insulation Resistance 4)	Capacitance @1MHz	Impulse Discharge Current @8/20µs <sup>5)</sup>		AC Discharge Current @50Hz 1S <sup>5)</sup>	Impulse Life @10/1000µS 200A <sup>5)</sup>	
				Max	Max	Min	Мах	Nominal ±5 times	Max 1 time	Nominal 5 times	Min	
DIP	SMD	DIP-F	DIP-T	v	v	v	GΩ	pF	KA	KA	А	Times
3R075TB-8	3R075SB-8	3R075TB-8F	3R075TB-8T	75±20%	500	600	1	1.5	10	20	10	300
3R090TB-8	3R090SB-8	3R090TB-8F	3R090TB-8T	90±20%	500	600	1	1.5	10	20	10	300
3R150TB-8	3R150SB-8	3R150TB-8F	3R150TB-8T	150±20%	500	600	1	1.5	10	20	10	300
3R200TB-8	3R200SB-8	3R200TB-8F	3R200TB-8T	200±20%	600	700	1	1.5	10	20	10	300
3R230TB-8	3R230SB-8	3R230TB-8F	3R230TB-8T	230±20%	600	700	1	1.5	10	20	10	300
3R250TB-8	3R250SB-8	3R250TB-8F	3R250TB-8T	250±20%	600	700	1	1.5	10	20	10	300
3R350TB-8	3R350SB-8	3R350TB-8F	3R350TB-8T	350±20%	800	900	1	1.5	10	20	10	300
3R400TB-8	3R400SB-8	3R400TB-8F	3R400TB-8T	400±20%	850	950	1	1.5	10	20	10	300
3R420TB-8	3R420SB-8	3R420TB-8F	3R420TB-8T	420±20%	850	950	1	1.5	10	20	10	300
3R470TB-8	3R470SB-8	3R470TB-8F	3R470TB-8T	470±20%	900	1000	1	1.5	10	20	10	300
3R600TB-8	3R600SB-8	3R600TB-8F	3R600TB-8T	600±20%	1100	1200	1	1.5	10	20	10	300
3R800TB-8	3R800SB-8	3R800TB-8F	3R800TB-8T	800±20%	1400	1500	1	1.5	10	20	10	300
Glow Volta	ge at 10mA.					~60V						
Arc Voltage	e at 1A					~10V						
Glow to Ar	c transition C	Current				~1A						
Operation and storage temperature					-40~+90	°C						
Climatic category (IEC60068-1)				40/90/21								
Marking, b	lue negative.					xxx -N	<b>N</b> Y Jominal volta Year of prod					
Weight						DIP SMD DIP-F	~2.10g ~1.85g ~2.35g ~2.15g					
Surface tre	eatment					DIP SMD	-Nickel Plat -Matte-tin p					

<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 at DC 25V 90V~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/T 9043.

# **361°** Circuit Protection System

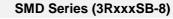
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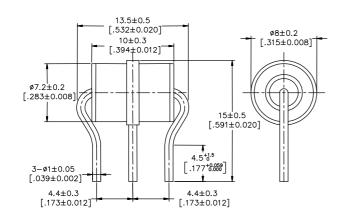


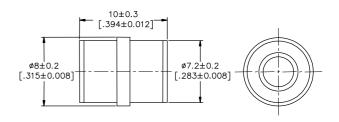
**3RB-8 Series** 

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

## **DIP Series (3RxxxTB-8)**

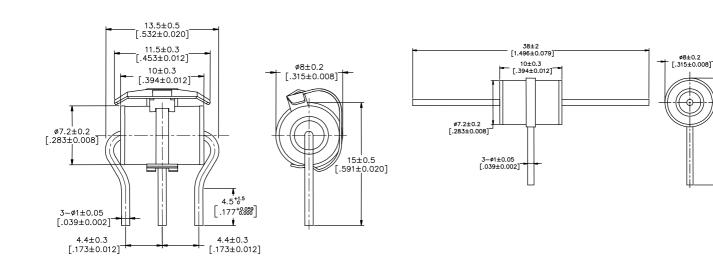






**DIP-F Series (3RxxxTB-8F)** 

**DIP-T Series (3RxxxTB-8T)** 





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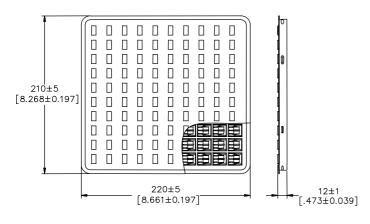
17.5±1 [.689±0.039]



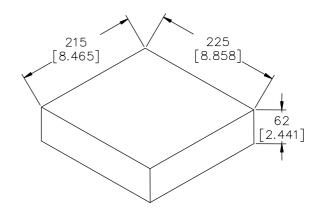
**3RB-8 Series** 

## Packaging Information (Unit: mm/inch)

## "DIP Series" and "DIP-F Series" Packaging (Bulk)

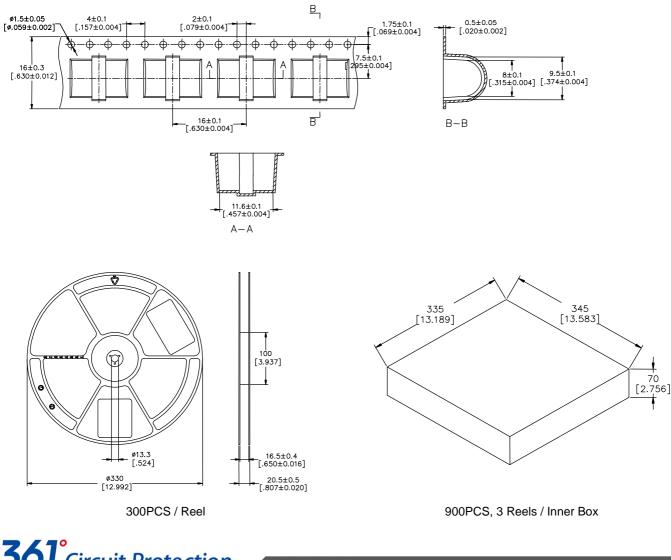


100PCS/ Plastic Tray



500PCS, 5 Plastic Trays / Inner Box

### "SMD Series" Packaging (Tape & Reel)



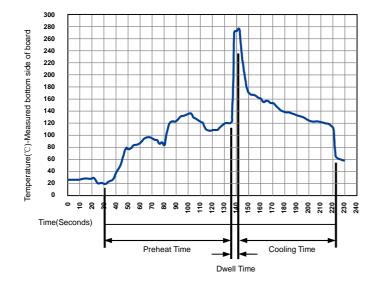
**361°**Circuit Protection System

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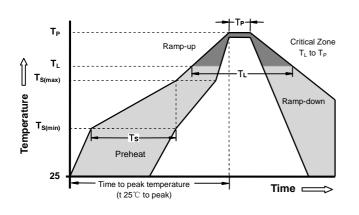
**3RB-8 Series** 

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



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

## Soldering Parameters - Reflow Soldering (Surface Mount Devices)



Reflow Co	ndition	Pb - Free assembly			
	-Temperature Min (T <sub>s(min)</sub> )	150°C			
Preheat	-Temperature Max (T <sub>s(max)</sub> )	200°C			
	- Time (min to max) (t <sub>s</sub> )	60 -180 Seconds			
Average ra T∟) to peak	amp up rate ( Liquids Temp ເ	3°C/second max			
T <sub>S(max)</sub> to T	L - Ramp-up Rate	5°C/second max			
Reflow	- Temperature (T∟) (Liquids)	217°C			
	- Time (min to max) (t <sub>s</sub> )	60 -150 Seconds			
Peak Tem	perature (T <sub>P</sub> )	260 +0/-5°C			
Time withi Temperatu	n 5°C of actual peak ıre (t <sub>p</sub> )	10 - 30 Seconds			
Ramp-dow	n Rate	6°C/second max			
Time 25°C	to peak Temperature (T <sub>P</sub> )	8 minutes Max			
Do not exc	eed	260°C			

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单击下面可查看定价,库存,交付和生命周期等信息

>>RUILON(瑞隆源)