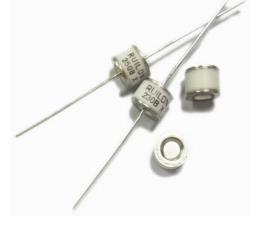
2RB-8 Series

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



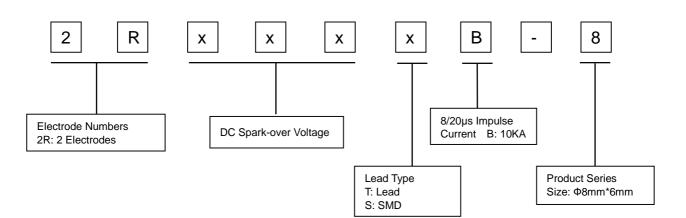
Features

- Excellent response to fast rising transients
- Stable breakdown voltage
- I GHz working frequency
- I 8/20µs Impulse current capability: 10KA
- I Non-Radioactive
- I Ultra Low capacitance (<1.5pF)
- I Lead-free and RoHS compliant
- I UL 497B Recognized: E465335
- I Size: 8.3mm*6mm
- I Storage and operational temperature: -40~+90°C

Applications

- I MDF modules
- I xDSL equipment
- I RF systems
- I Antenna
- I Base stations
- I Repeaters, Modems
- I Telephone Interface, Line cards
- Data communication equipment
- I Line test equipment
- Power supplies
- Surge protectors, Alarm systems

Part Number Code



Revised: 2017-04-25





2RB-8 Series

Electrical Characteristics

Part Number		DC Spark-over Voltage ^{1) 2)} @100V/S	Impulse Spark-over Voltage		Insulation Resistance	Capacitance @1MHz	Life Ratings			
							Impulse Discharge		_	Impulse Life
			100V/μS	1KV/µS	3)		Current @8/20µS		Current @50Hz 1S	@10/1000μS 100A
			Max	Max	Min	Max	Nominal ±5 times	Max 1 time	Nominal 5 times	Min
DIP	SMD	v	V	V	GΩ	pF	KA	KA	A	Times
2R075TB-8	2R075SB-8	75±20%	500	600	1	1	10	12	10	300
2R090TB-8	2R090SB-8	90±20%	500	600	1	1	10	12	10	300
2R150TB-8	2R150SB-8	150±20%	500	600	1	1	10	12	10	300
2R230TB-8	2R230SB-8	230±20%	600	700	1	1	10	12	10	300
2R250TB-8	2R250SB-8	250±20%	600	700	1	1	10	12	10	300
2R300TB-8	2R300SB-8	300±20%	750	850	1	1	10	12	10	300
2R350TB-8	2R350SB-8	350±20%	800	900	1	1	10	12	10	300
2R420TB-8	2R420SB-8	420±20%	850	950	1	1	10	12	10	300
2R470TB-8	2R470SB-8	470±20%	900	1000	1	1	10	12	10	300
2R600TB-8	2R600SB-8	600±20%	1000	1200	1	1	10	12	10	300
2R800TB-8	2R800SB-8	800±20%	1300	1400	1	1	10	12	10	300
Glow Voltage at 10mA				~60V						
Arc Voltage at 1	A				~10V					
Glow to Arc transition Current				~0.5A						
Weight				~1.45g						
Operation and storage temperature				40~90°	0					
Climatic category (IEC 60068-1)				40/090/2	<u></u> 21					
Marking, black				xxx B xxx -N B -I	B -Nominal Impulse Discharge Current					
Surface treatment					Nickel Plated Matte-tin plated	d				

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75V at DC 25V 90V~150V at DC 50V Other at DC 100V

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



¹⁾ At delivery AQL 0.65 level II, DIN ISO 2859

²⁾ In ionized mode

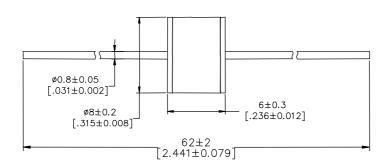
³⁾ Insulation Resistance Measuring Voltage:

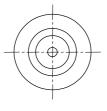


2RB-8 Series

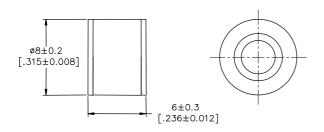
Dimensions (Unit: mm/inch)

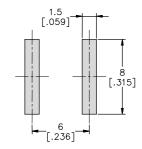
DIP Series (2RxxxTB-8)





SMD Series (2RxxxSB-8)



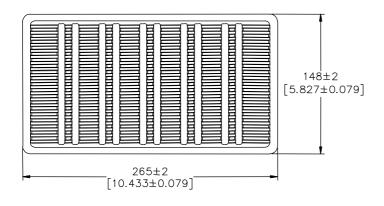


Recommended Soldering Pad Layout

Packaging Information (Unit: mm/inch)

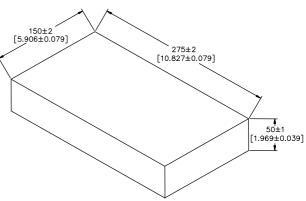
Axial Packaging (Bulk)

Plastic Tray



Inner box

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Packaging Quantity:

100 PCS per Plastic Tray

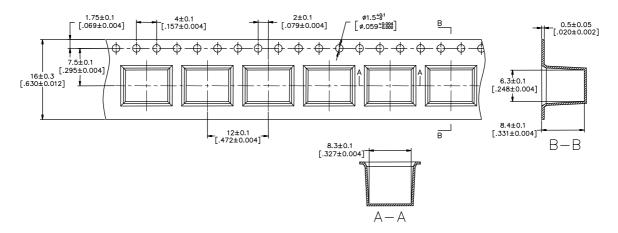
5 Plastic Trays per inner box

500 PCS per inner box

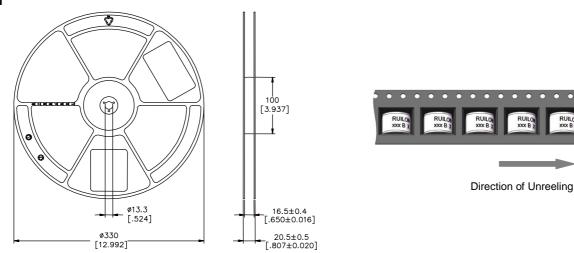


SMD Packaging (Tape & Reel)

Tape

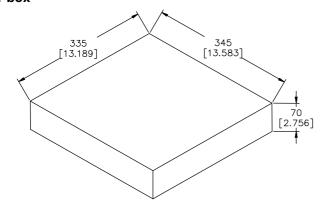


Reel



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Inner box



Packaging Quantity:

500 PCS per reel (13")

3 reels per inner box

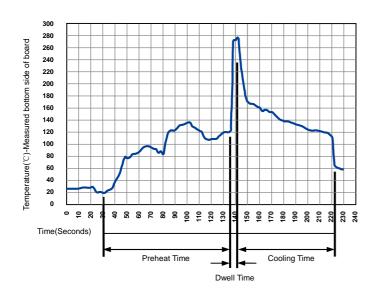
1,500 PCS per inner box



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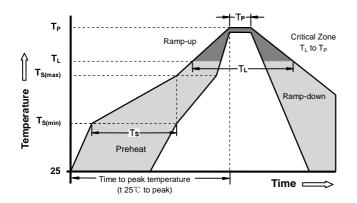
2RB-8 Series

Soldering Parameters - Wave soldering (Thru-Hole Devices)



Wave Solo	lering 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 Dw	ell Time	2-5 Seconds		

Soldering Parameters - Reflow Soldering (Surface Mount Devices)



Reflow Co	ndition	Pb - Free assembly		
	-Temperature Min (T _{s(min)})	150°C		
Preheat	-Temperature Max (T _{s(max)})	200°C		
	- Time (min to max) (t _s)	60 -180 Seconds		
Average ra T _L) to peal	amp up rate (Liquids Temp c	3°C/second max		
T _{S(max)} to T	L - Ramp-up Rate	5°C/second max		
Reflow	- Temperature (T _L) (Liquids)	217°C		
	- Time (min to max) (t _s)	60 -150 Seconds		
Peak Tem	perature (T _P)	260 +0/-5°C		
Time withi	n 5°C of actual peak ıre (t _p)	10 - 30 Seconds		
Ramp-dow	vn Rate	6°C/second max		
Time 25°C	to peak Temperature (T _P)	8 minutes Max		
Do not exc	ceed	260°C		

