

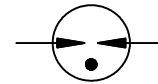
Description

Using the technical requirements of the leading industry, RUILON has designed a super thin gas discharge tube, which is mainly used in the product's volume requirements and space constraints.

Gas discharge tubes (GDT) use noble gasses enclosed in ceramic tubes to provide an alternate circuit path for voltage spikes. The ceramic envelope and with nickel connectors allow for high loads. 2RB-8T25 Gas Discharge Tubes (GDT) series has a surge rating of 10kA, 8/20 μ s. This GDT series is perfectly suited for broadband equipment applications. The GDT's low off-state capacitance is compatible with high bandwidth applications and this capacitance loading value does not vary if the voltage across the GDT changes.



Electrical symbol



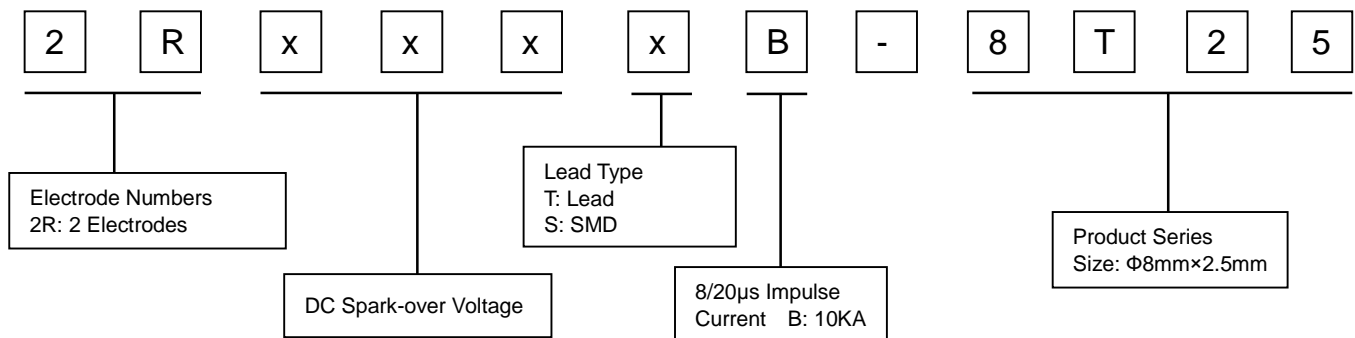
Features

- I Excellent response to fast rising transients
- I Stable breakdown voltage
- I GHz working frequency
- I 8/20 μ s Impulse current capability: 10KA
- I Non-Radioactive
- I Ultra Low capacitance (<2.0pF)
- I Lead-free compliant
- I RoHS and REACH compliant
- I Size: Φ 8mm*2.5mm
- I Storage and operational temperature: -40~+90°C

Applications

- I Telecom CPE
- I Communication equipment
- I Surge Protective Devices
- I High density PCB assemblies

Part Number Code



Electrical Characteristics

Part Number	DC Spark-over Voltage ¹⁾²⁾ @100V/S	Impulse Spark-over Voltage		Insulation Resistance ³⁾	Capacitance @1MHz	Life Ratings					
		100V/μS	1KV/μS			Impulse Discharge Current @8/20μS		AC Discharge Current	Impulse Life @10/1000μS 100A		
		Max	Max			Min	Max	Nominal ±5 times	Max 1 time	Nominal 5 times	Min
		V	V			V	GΩ	pF	KA	KA	A
2R090SB-8T25	90±20%	500	600	1	2.0	10	15	10	300		
2R150SB-8T25	150±20%	500	600	1	2.0	10	15	10	300		
2R230SB-8T25	230±20%	600	700	1	2.0	10	15	10	300		
2R300SB-8T25	300±20%	750	850	1	2.0	10	15	10	300		
2R350SB-8T25	350±20%	800	900	1	2.0	10	15	10	300		
2R470SB-8T25	470±20%	1100	1200	1	2.0	10	15	10	300		
2R600SB-8T25	600±20%	1400	1600	1	2.0	10	15	10	300		
2R800SB-8T25	800±20%	1600	1800	1	2.0	10	15	10	300		
Glow Voltage at 10mA.....				~60V							
Arc Voltage at 0.5A.....				~10V							
Glow to Arc transition Current.....				~1A							
Weight.....				~0.42g							
Operation and storage temperature.....				-40~+90°C							
Climatic category (IEC 60068-1).....				40/90/21							
Marking, Laser marking.....				RUILON xxxB Y xxx -Nominal voltage B -Nominal Impulse Discharge Current Y -Year of production							
Surface treatment.....				Matte-tin plated							

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

²⁾ In ionized mode

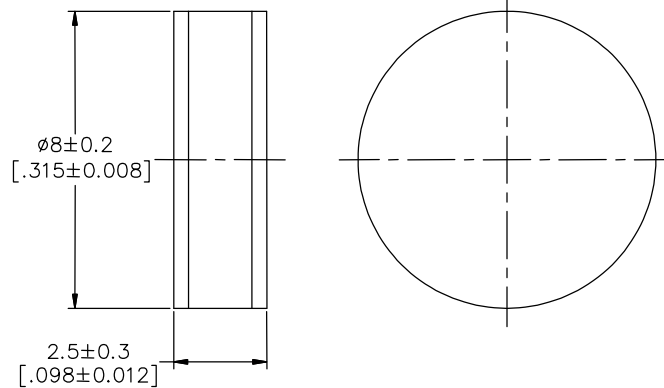
³⁾ Insulation Resistance Measuring Voltage:

90V~150V at DC 50V

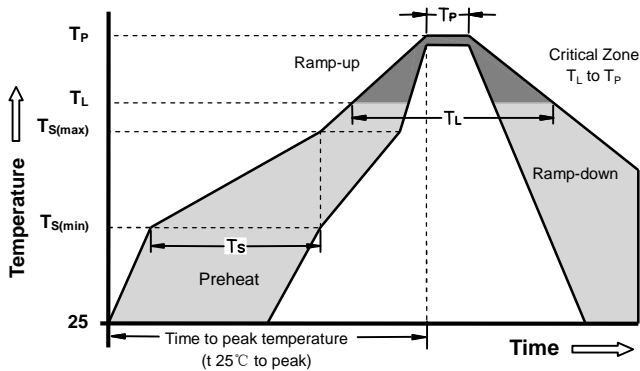
Other at DC 100V

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

Dimensions (Unit: mm/inch)



Soldering Parameters - Reflow Soldering (Surface Mount Devices)



Reflow Condition		Pb - Free assembly
Pre Heat	-Temperature Min ($T_{S(min)}$)	150°C
	-Temperature Max ($T_{S(max)}$)	200°C
	- Time (min to max) (t_s)	60 -180 Seconds
Average ramp up rate (Liquids Temp T_L) to peak		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 Temperature (T_P)		260 +0/-5°C
Time within 5°C of actual peak Temperature (t_p)		10 - 30 Seconds
Ramp-down Rate		6°C/second max
Time 25°C to peak Temperature (T_P)		8 minutes Max
Do not exceed		260°C