

Bx2R2D5-xxxx

Gas Discharge Tube

Features

- High insulation resistance
- Low capacitance ($\leq 1\text{pF}$)
- 3KA 8/20 μs maximum surge current capacity in accordance with IEC61000-4-5
- Surface mounted gas arrester
- Micro-Gap Design
- Size 5.5 \times 6.0
- Storage and operating temperature: $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$
- Meets MSL level 1, per J-STD-020

Package



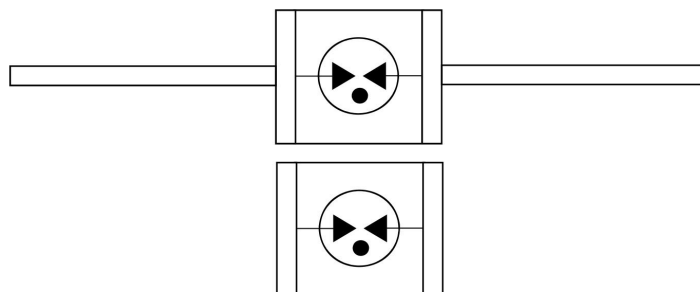
Applications

- Communication equipment
- CATV equipment
- Data lines
- Power supplies
- Telecom SLIC protection

Applications

- Broadband equipment
- ADSL equipment, including ADSL2+
- XDSL equipment
- Satellite and CATV equipment
- General telecom equipment

Schematic & PIN Configuration



Ordering information

Order code	Package	Base qty	Delivery mode
BA2R2D5-xxxx	5.5 \times 6-W	500	Bulk
BS2R2D5-xxxx	5.5 \times 6.0	500	Bulk



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Absolute Maximum Ratings (T_A=+25°C, unless otherwise noted)

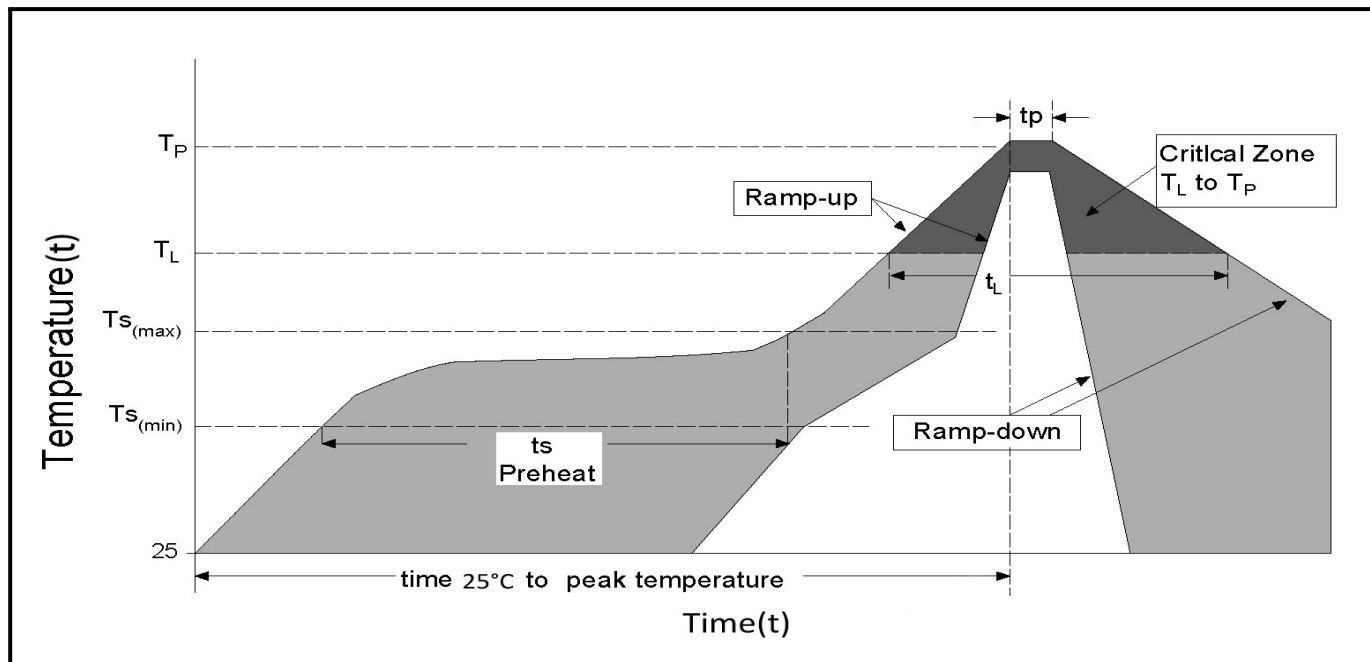
Part Number		DC Sparkover Voltage	Maximum Impulse Spark-over Voltage	Minimum Insulation Resistance	Maximum Capacitance	Nominal Impulse Discharge Current
		100V/S	1KV/us	(GΩ)	1MHZ	8/20us ±5times
		(V)	(V)		(pF)	(KA)
BA2R2D5-1000	BS2R2D5-1000	1000±20%	1900	1	1	3
BA2R2D5-1500	BS2R2D5-1500	1500±20%	2500	1	1	3
BA2R2D5-2000	BS2R2D5-2000	2000±20%	3500	1	1	3
BA2R2D5-2500	BS2R2D5-2500	2500±20%	4000	1	1	3
BA2R2D5-3000	BS2R2D5-3000	3000±20%	4500	1	1	3
BA2R2D5-3600	BS2R2D5-3600	3600±20%	5000	1	1	3

Electrical Parameters

Items	Test Condition/Description	Requirement
DC Spark-over Voltage	The voltage is measured with voltage ramp dv/dt=100V/s.	To meet the specified value
Maximum Impulse Spark-over Voltage	The maximum impulse spark-over voltage is measured with voltage ramp dv/dt=1000V/us.	
Insulation Resistance	The resistance of gas tube shall be measured between two electrodes.	
Capacitance	The capacitance of gas tube shall be measured between two electrodes. Test frequency: 1MHz	
Impulse Discharge Current	Maximum 8/20μs surge current that can be applied between two electrodes, 5 positive and 5 negative surges, with 3 minutes interval time, without causing the DC spark-over voltage to change more than 25% from its initial value.	

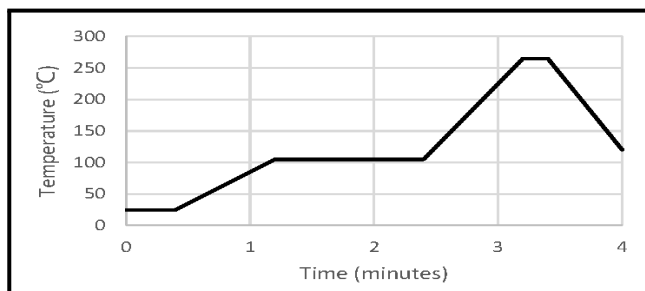


Soldering Parameters



Reflow Condition		Lead-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 secs
Average ramp up rate (Liquidus Temp (T_L) to peak)		3°C/second max
$T_{S(max)}$ to T_L - Ramp-up Rate		3°C/second max
Reflow	- Temperature (T_L) (Liquidus)	217°C
	- Time (t_L)	60 - 150 secs
Peak Temperature (T_P)		260 ^{+0/-5} °C
Time within 5°C of actual peak Temperature (t_p)		20 – 40 secs
Ramp-down Rate		6°C/second max
Time 25°C to peak Temperature (t)		8 minutes Max.
Do not exceed		260°C

Soldering Parameters



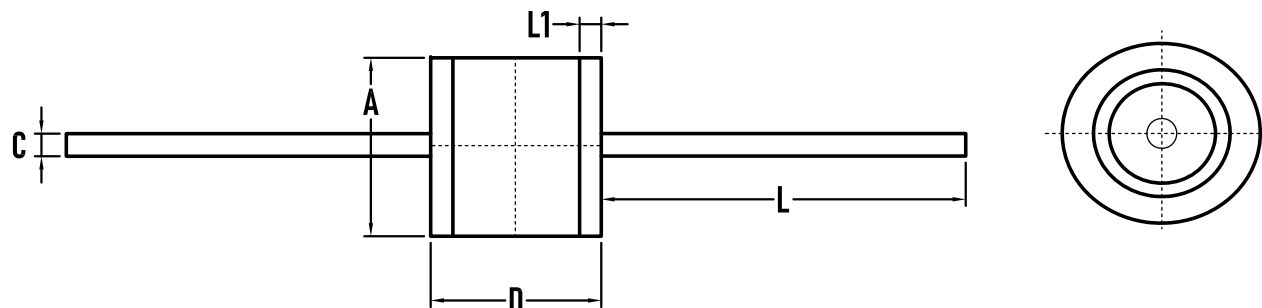
Wave Soldering	Lead-free assembly
Peak Temperature (T_P)	260 ^{+0/-5} °C
Dipping Time (t)	10 Sec
Soldering	1 time



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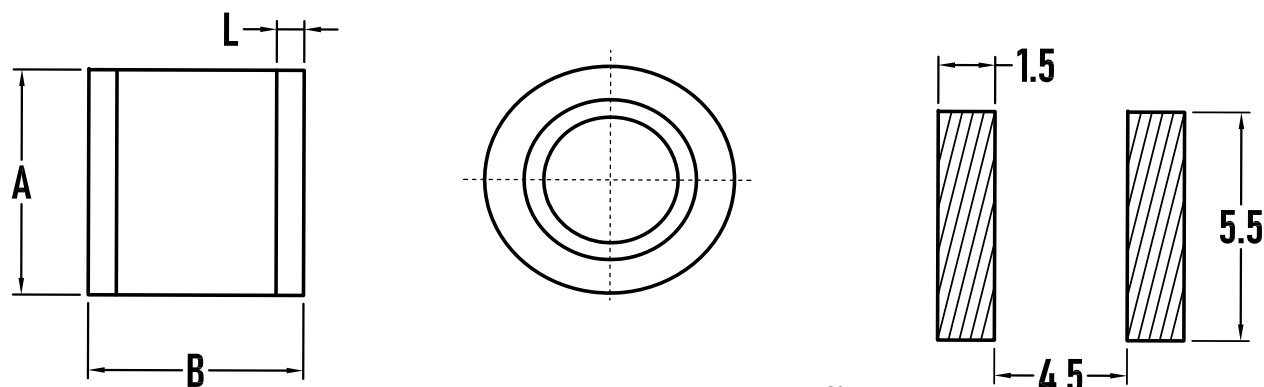
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Outline Drawing -5.5×6.0-W



Dim.	Millimeters			Inches		
	MIN.	NOW.	MAX.	MIN.	NOW.	MAX.
A	5	5.5	5.8	0.197	0.217	0.228
C	0.7	0.8	0.9	0.028	0.031	0.035
D	5.5	6	6.3	0.217	0.236	0.248
L	—	—	30	—	—	1.181
L1	0.4	0.5	0.6	0.016	0.02	0.024

Outline Drawing -5.5×6.0



Note:
dimensions: Millimeters

Dim.	Millimeters			Inches		
	MIN.	NOW.	MAX.	MIN.	NOW.	MAX.
A	5	5.5	5.8	0.197	0.217	0.228
B	5.5	6	6.3	0.217	0.236	0.248
L	0.4	0.5	0.6	0.016	0.02	0.024

