BORN SEMICONDUCTOR

BFBxxxN

GDT Protection Component

Features

- FeatureNon-Radioactive
- ROHS Compliant
- SMD Device
- LOW Capacitance
- High insulation resistance
- Fast response-time
- Extremely small size

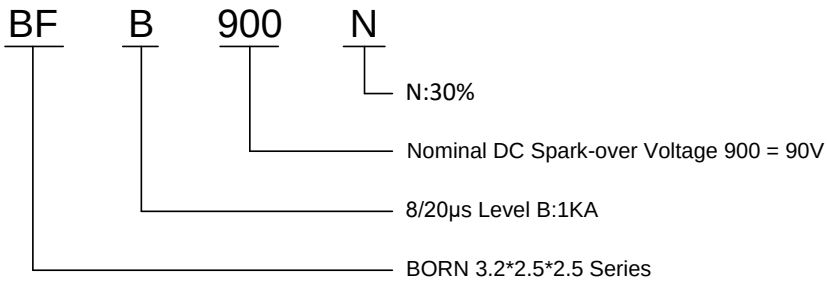
Package

3.2×2.5×2.5

Applications

- PCI Cards protection
- PON protection
- Telephone/Fax/modem protection
- Date/Single line protection
- XDSL Splitter
- Electrostatic charge elimination
- Consumer electronic

Part Numbering



Ordering information

Order code	Package	Base qty	Delivery mode
BFBxxxN	3.2*2.5*2.5	–	Tape and Reel

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Specifications are subject to change without notice.
Please refer to http://*www.born-tw.com* for current information.

Revision: 2022-Jan-1-A

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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		Max. Capaci-tance	Impulse withstanding Voltage Capacity	Nominal Impulse Discharge Current
	100V/S	1KV/us	(GΩ)	Test DC Voltage	1MHZ	10/1000us 5A	8/20us ±5times
	(V)	(V)		(V)	(pF)	(times)	(KA)
BFB750N	75±30%	<600	>1	52	<0.8	100	1
BFB900N	90±30%	<600	>1	52	<0.8	100	1
BFB151N	150±30%	<700	>1	80	<0.8	100	1
BFB201N	200±30%	<700	>1	135	<0.8	100	1
BFB231N	230±30%	<700	>1	135	<0.8	100	1
BFB251N	250±30%	<700	>1	135	<0.8	100	1
BFB351N	350±30%	<800	>1	150	<0.8	100	1
BFB421N	420±30%	<900	>1	150	<0.8	100	1

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	
Nominal Impulse Discharge Current	The maximum current applying a waveform of 8/20μs that can be applied across the terminals of the gas tube. One hour after the test is completed, retesting of the DC spark-over voltage does not exceed ±40% of the nominal DC spark-over voltage. Dwell time between pulses is 3 minutes.	

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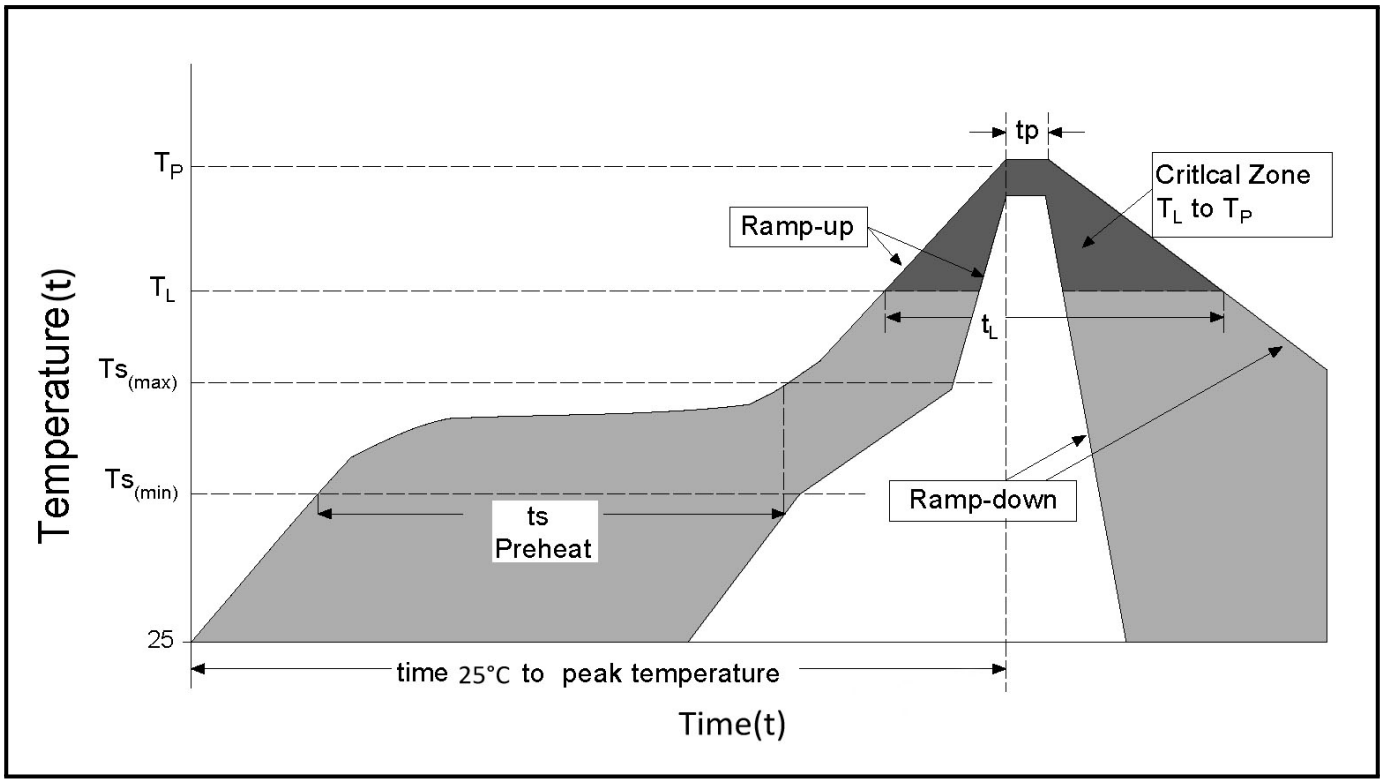
Soldering Parameters



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		5°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)		10 – 30 secs
Ramp-down Rate		6°C/second max
Time 25°C to peak Temperature (t)		8 minutes Max.
Do not exceed		260°C

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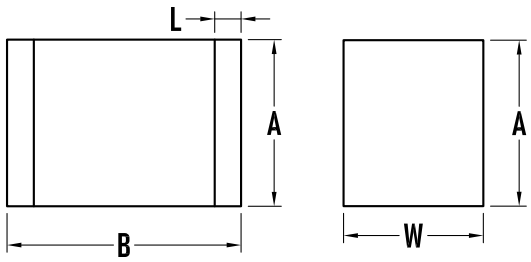
Outline Drawing – 3.2*2.5*2.5



Dim.	Millimeters		
	MIN.	NOW.	MAX.
A	2.3	2.5	2.7
B	3.0	3.2	3.4
W	2.2	2.5	2.8
L	0.4	0.5	0.6

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