

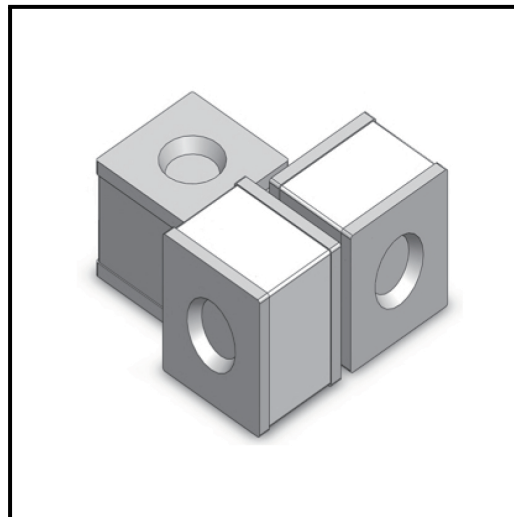
BWFxxxx

GDT Protection Component

Features

- High insulation resistance
- Ultra low capacitance (<1pF)
- 5.0KA surge capability tested with 8/20us pulse as defined by IEC61000-4-5
- 6KV 10/700μs maximum surge rating in accordance with ITU-TK.21
- Surface mounted gas arrester
- Size: 5.0mm*5.0mm*4.2mm
- Storage and operating temperature: -40°C ~ +85°C
- Meets MSL level 1

Package



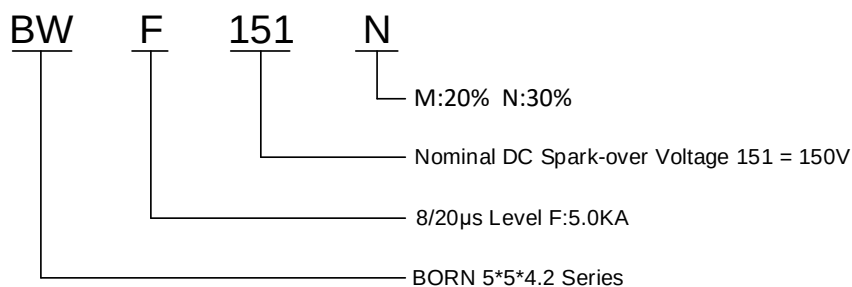
Applications

- Communication equipment
- CATV equipment
- Test 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
BWFxxxx	5.0mm*5.0mm*4.2mm	1000	Tape and Reel

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Absolute Maximum Ratings ($T_A=+25^{\circ}\text{C}$, unless otherwise noted)

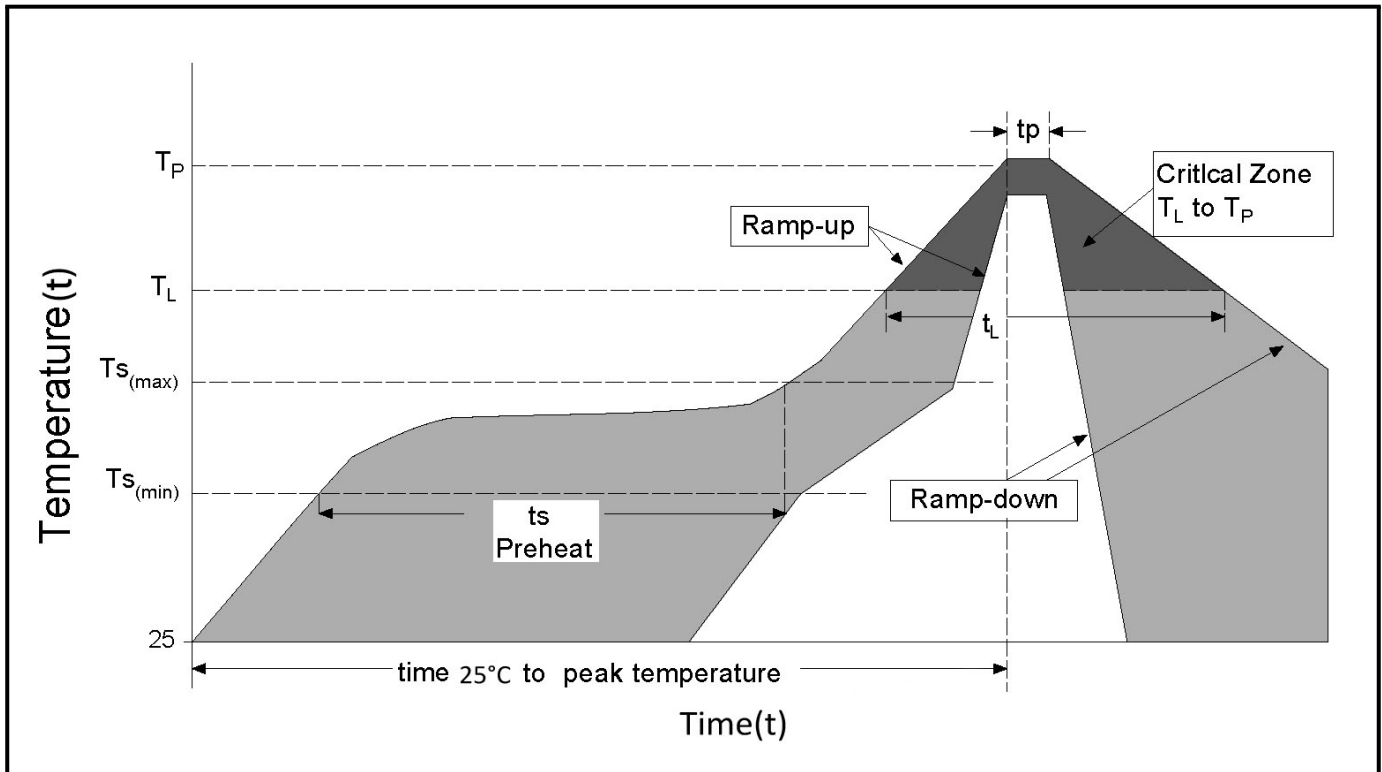
Part Number	DC Sparkover Voltage	Maximum Impulse Spark-over Voltage	Minimum Insulation Resistance		Max. Capacitance	Impulse withstanding Voltage Capacity	Nominal Impulse Discharge Current
	100V/S	1KV/us	(GΩ)	Test DC Voltage	1MHZ	10/700us ±5times	8/20us ±5times
	(V)	(V)		(V)	(pF)	(KV)	(KA)
BWF750N	75±30%	700	1	25	1	6	5
BWF900N	90±30%	700	1	50	1	6	5
BWF151N	150±30%	700	1	50	1	6	5
BWF231N	230±30%	700	1	100	1	6	5
BWF301N	300±30%	800	1	100	1	6	5
BWF351N	350±30%	850	1	100	1	6	5
BWF401N	400±30%	900	1	100	1	6	5
BWF471N	470±30%	1000	1	250	1	6	5
BWF601N	600±30%	1200	1	250	1	6	5
BWF801N	800±30%	1600	1	250	1	6	3
BWF102N	1000±30%	1800	1	500	1	6	3
BWF122N	1200±30%	1900	1	500	1	6	3

Electrical Parameters

Items	Test Condition/Description	Requirement
DC Spark-over Voltage	The voltage is measured with voltage ramp $dv/dt=100\text{V/s}$.	To meet the specified value
Impulse Spark-over Voltage	The maximum impulse spark-over voltage is measured with voltage ramp $dv/dt=1000\text{V/us}$.	
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, re-testing of the DC spark-over voltage does not exceed ±40% of the nominal DC spark-over voltage. Dwell time between pulses is 3 minutes.	



Soldering Parameters



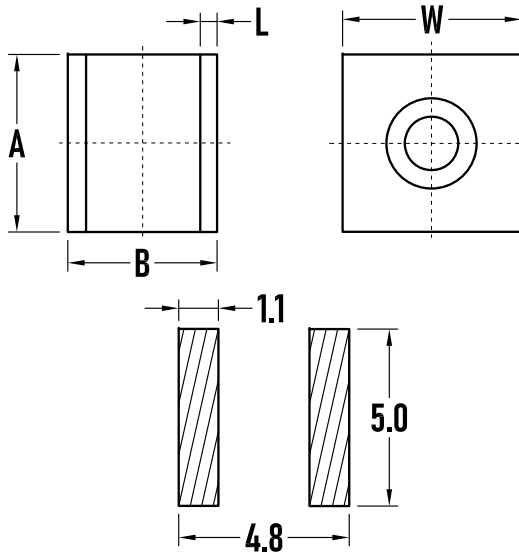
Reflow Condition		Lead-free assembly
Pre Heat	- Temperature Min ($T_{S(min)}$)	150°C
	- Temperature Max ($T_{S(max)}$)	200°C
	- Time (min to max) (t_s)	60 - 180 secs
Average ramp up rate (Liquidus Temp (T_L) to peak)		3°C/second max
$T_{S(max)}$ to T_L - Ramp-up Rate		5°C/second max
Reflow	- Temperature (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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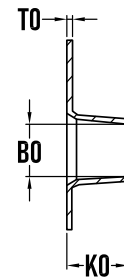
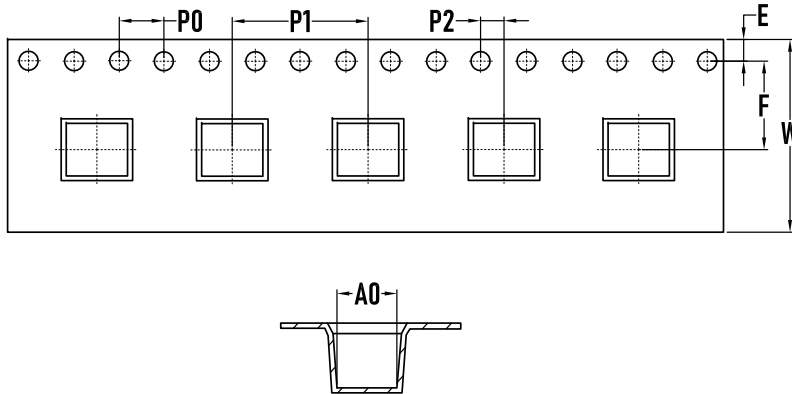
GDT Protection Component

Outline Drawing -5*5*4.2



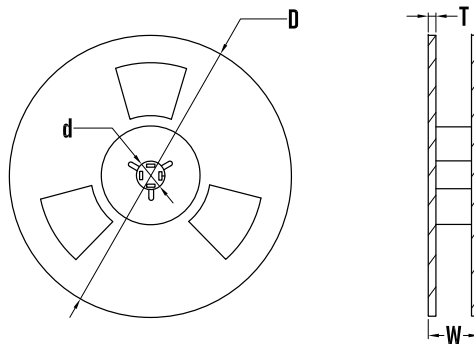
Dim.	Millimeters		
	MIN.	NOW.	MAX.
A	4.8	5.0	5.2
B	3.9	4.2	4.5
L	0.4	0.5	0.6
W	4.8	5.0	5.2

Packaging Tape



SYMBOL	MILLIMETER
A0	5.30±0.10
B0	4.50±0.10
D0	1.50±0.10
E	1.75±0.10
F	7.50±0.10
K0	5.40±0.10
P0	4.00±0.10
P1	12.00±0.20
P2	2.00±0.10
W	16.00±0.20
T0	0.40±0.10

Packaging Reel



SYMBOL	MILLIMETER
D	330±2.0
d	13.00±0.5
T	2.0±0.2
W	20.0±0.5
Quantity	1000PCS

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Cautions and warnings

- Gas discharge tubes (GDT) must not be operated directly in power supply networks.
- Gas discharge tubes (GDT) may become hot in case of longer periods of current stress (danger of burning).
- Gas discharge tubes (GDT) may be used only within their specified values. In the event of overload, the head contacts may fail or the component may be destroyed.
- Damaged Gas discharge tubes (GDT) must not be re-used.

