

Surface Mount, 2-Electrode Gas Discharge Tube B2G5LS HV Series

Descriptions

The Gas Discharge Tube (GDT) operates as a symmetrical voltage-dependent switch. Features as very high surge current handling capability, very high insulation resistance and ultra-low capacitance meet almost perfectly all requirements made on a protective element.

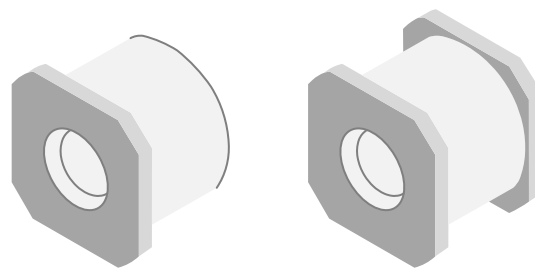
The B2G5LS HV Series are 2-pole GDTs designed for protection of power lines. Low insertion loss is also perfectly suited to broadband equipment applications.

Features

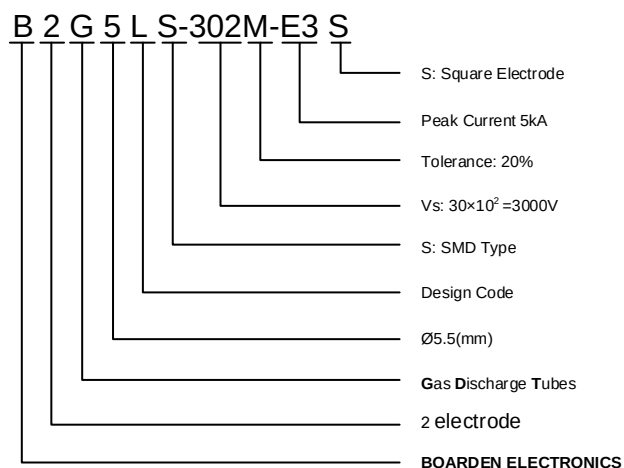
- 2-electrode arrester
- Very small size
- Rugged Ceramic-Metal construction
- Stable performance over life
- Extremely low capacitance ($\leq 0.8\text{pF}$)
- High insulation resistance

Applications

- PCI cards
- Modem
- Splitter
- Line cards
- Applications with limited space



Part Numbering System

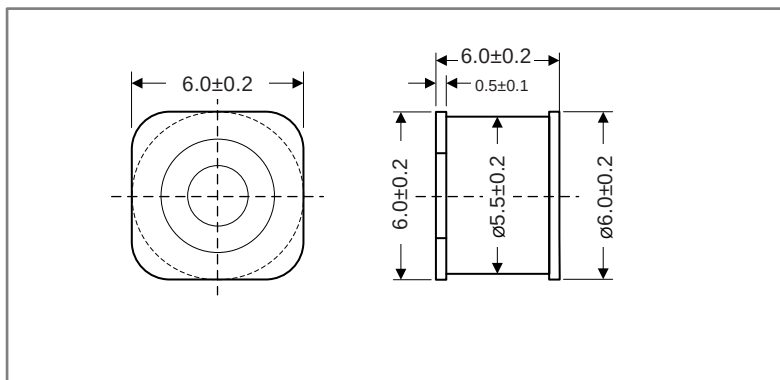


Order information

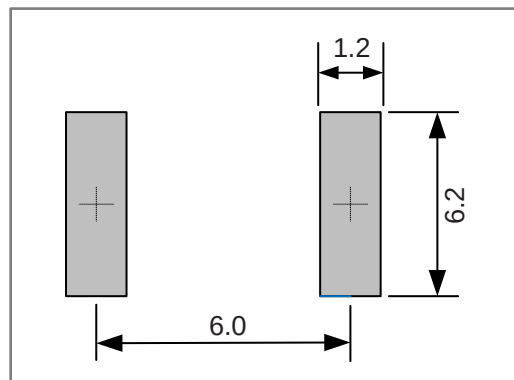
Device	Qualities	Size
B2G5LS HV Series	700/R	13 Inch

Product Dimensions (mm)

Dimension



Recommended Pad Size



Electrical Characteristics (TA=25°C unless otherwise noted)

Part Number		DC Spark Over Voltage ^{1),2)} @100V/s	Impulse Spark Over Voltage		Impulse Withstand Ratings		AC Discharge Current
			100V/μs	1kV/μs	8/20μs ±5 times	8/20μs 1 time	@50Hz 1s 5 times
			Max.	Max.	Nom.	Max.	Nom.
One Square Electrode	Two Square Electrodes	V	V	V	kA	kA	A
B2G5LS-102M-E5	B2G5LS-102M-E5S	1000±20%	1350	1500	5	10	5
B2G5LS-122M-E5	B2G5LS-122M-E5S	1200±20%	1550	1800	5	10	5
B2G5LS-152M-E5	B2G5LS-152M-E5S	1500±20%	1950	2100	5	10	5
B2G5LS-182M-E5	B2G5LS-182M-E5S	1800±20%	2300	2500	5	10	5
B2G5LS-202M-E3	B2G5LS-202M-E3S	2000±20%	2600	2800	3	5	3
B2G5LS-252M-E3	B2G5LS-252M-E3S	2500±20%	3200	3400	3	5	3
B2G5LS-272M-E3	B2G5LS-272M-E3S	2700±20%	3400	3600	3	5	3
B2G5LS-302M-E3	B2G5LS-302M-E3S	3000±20%	3900	4100	3	5	3
B2G5LS-362M-E3	B2G5LS-362M-E3S	3600±20%	4400	4700	3	5	3
B2G5LS-402M-E2	B2G5LS-402M-E2S	4000±20%	5000	5400	2	5	2
B2G5LS-452M-E2	B2G5LS-452M-E2S	4500±20%	5600	6100	2	5	2
B2G5LS-502M-E2	B2G5LS-502M-E2S	5000±20%	6300	6800	2	5	2
Minimum Insulation Resistance ³⁾				1GΩ			
Maximum Capacitance @1MHz.....				0.8pF			
Glow voltage at 10mA.....				160~260V			
Arc voltage at 1A.....				15~35V			
Glow to Arc transition current.....				~0.3A			
Weight.....				~0.44 g			
Operation and storage temperature.....				-40 ~ +125°C			
Climatic category (IEC 60068-1).....				40/125/21			
Marking.....				□ L xxx yy xxx -Nominal voltage; yy -Production year			

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

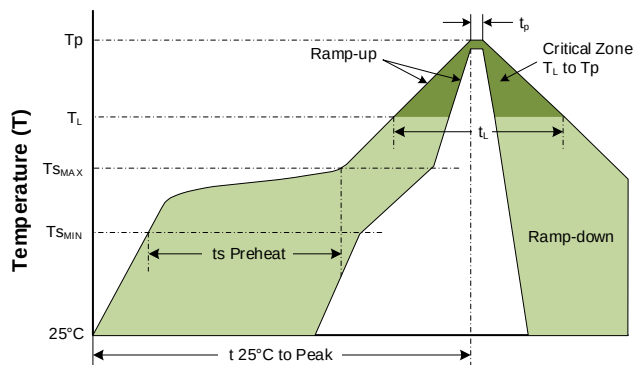
2) In ionized mode

3) Insulation resistance measuring voltage at 100Vdc

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

Soldering Parameters

Profile Feature	Lead-Free Assembly
Average Ramp-up Rate ($T_{S_{MAX}}$ to T_p) Average Ramp-down Rate (T_p to T_L)	3°C/second max. 6°C/second max.
Preheat • Temperature Min ($T_{S_{MIN}}$) • Temperature Max ($T_{S_{MAX}}$) • Time (t_s Preheat)	150°C 200°C 60-180 seconds
Time maintained above: • Temperature (T_L) • Time (t_L)	217°C 60-150 seconds
Peak/Classification Temperature • Temperature (T_p)	260 ^{+0/-5} °C
Time within 5°C of actual Peak Time (t_p)	20-40 seconds
Time 25°C to peak Temperature	8 minutes max
Do not exceed	280 °C



Flow/Wave Soldering (Solder Dipping)

Peak Temperature :	265 °C
Dipping Time :	10 seconds
Soldering :	1 time

Cautions and warnings

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

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Specifications are subject to change without notice.

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