

Micro Surface Mount, Low Duty 2-Electrode Gas Discharge Tube B2G3SS 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.

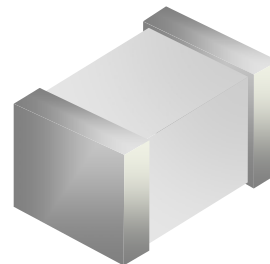
The B2G3SS Series are designed for surface mounting on PCB with small size 4.5x3.2x2.7mm. Low insertion loss and small factors are perfectly suited to broadband equipment applications.

Features

- 2-electrode arrester
- Very small size
- Rugged Ceramic-Metal construction
- Stable performance over life
- Extremely low capacitance ($<0.5\text{pF}$)
- High insulation resistance

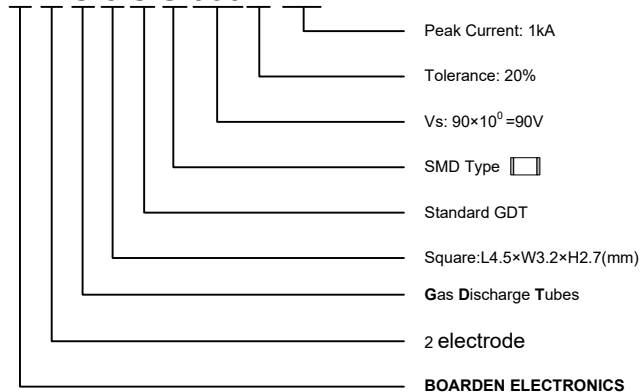
Applications

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



Part Numbering System

B 2 G 3 S S-900M-E1

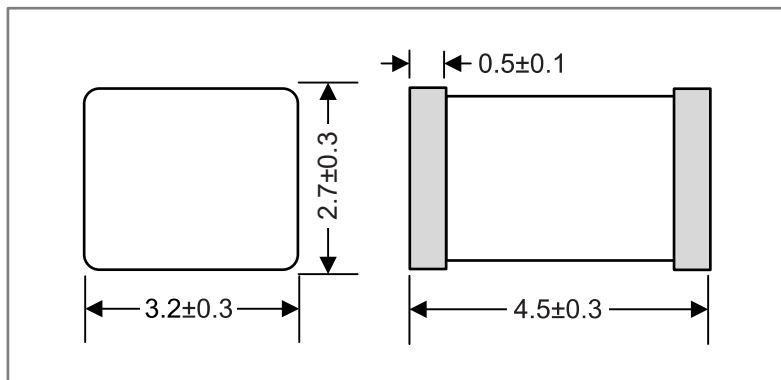


Order information

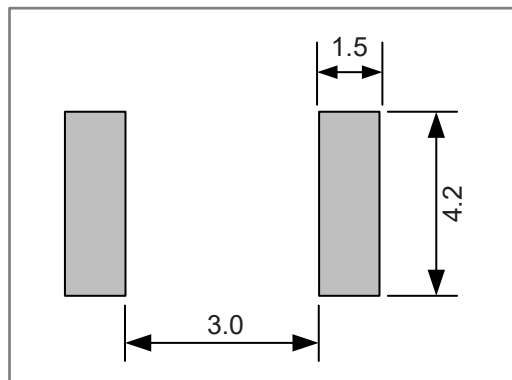
Device	Qualities	Reel Size
B2G3SS Series	2500	13 Inch

Product Dimensions (mm)

Dimension



Recommended Pad Size



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

Part Number	Vs (V) ^{1),2)} @100V/s	Vss (V)		IMDC (A) @8/20μs			ACDC (A)	IR ³⁾ (GΩ)	C (pF)
		@100V/μs	@1kV/μs	8/20μs ± 5 times	8/20μs 1 times	10/1000μs 100 times	@50Hz 1s 5 times		@1MHz
		Max	Max	Nom	Max	Min	Nom	Min	Max
B2G3SS-750M-E1	75 ± 20%	500	600	1000	2000	10	2	1	0.5
B2G3SS-900M-E1	90 ± 20%	500	600	1000	2000	10	2	1	0.5
B2G3SS-151M-E1	150 ± 20%	500	600	1000	2000	10	2	1	0.5
B2G3SS-201M-E1	200 ± 20%	600	700	1000	2000	10	2	1	0.5
B2G3SS-231M-E1	230 ± 20%	600	700	1000	2000	10	2	1	0.5
B2G3SS-301M-E1	300 ± 20%	750	850	1000	2000	10	2	1	0.5
B2G3SS-351M-E1	350 ± 20%	800	900	1000	2000	10	2	1	0.5
B2G3SS-401M-E1	400 ± 20%	850	950	1000	2000	10	2	1	0.5
B2G3SS-421M-E1	420 ± 20%	900	1000	1000	2000	10	2	1	0.5
B2G3SS-471M-E1	470 ± 20%	1000	1100	1000	2000	10	2	1	0.5
B2G3SS-501M-E1	500 ± 20%	1000	1100	1000	2000	10	2	1	0.5
B2G3SS-601M-E1	600 ± 20%	1000	1200	1000	2000	10	2	1	0.5
B2G3SS-801M-E1	800 ± 20%	1400	1600	1000	2000	10	2	1	0.5
Glow voltage at 10mA.....				~60V					
Arc voltage at 1A.....				~10V					
Glow to Arc transition current.....				~0.3A					
Weight.....				~0.2g					
Operation and storage temperature.....				-40 ~ +90°C					
Climatic category (IEC 60068-1).....				40/90/21					
Marking.....				Blank					

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

2) In ionized mode

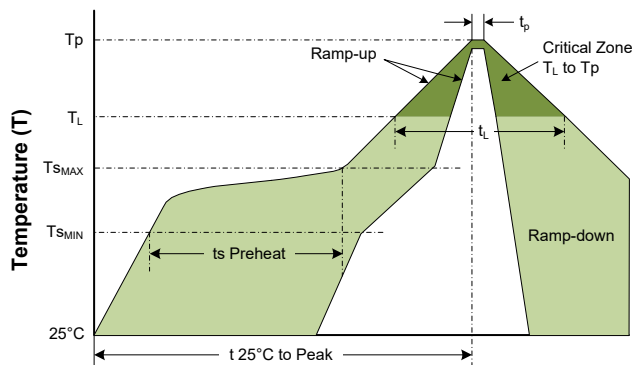
3) Insulation resistance measuring voltage: 75V at 25Vdc; 90~150V at 50Vdc; other at 100Vdc

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

- **V_s** - DC Spark Over Voltage
- **V_{ss}** - Impluse Spark Over Voltage
- **IMDC** - Impulse Discharge Current
- **ACDC** - AC Discharge Current
- **IR** - Insulation Resistance
- **C** - Capacitance

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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