NR0691E (Date of release: September 21, 2006)

Mass Production of Ultra-Small Chip Ferrite Bead, the Smallest in the Industry－0402(01005 EIA) Size BLM02A Series－

[Body]

Murata Manufacturing Co., Ltd. has commercialized and started mass-production of chip monolithic ferrite beads BLM02A series that are the smallest in the industry.
The dimension of this product is 0402 size at 0.4x0.2x0.2mm (LxWxT), with approximately 40% smaller mounting space compared with the existing 0603 (0201 EIA) size model. It is particularly suitable for applications requiring compactness and space efficiency such as power amplifier module for cellular phones [*1]. We have realized ultra-compactness by improving the coil structure in the element using ferrite monolithic technology that Murata has been nurturing. No substances controlled by RoHS directive [*2] are used.
There are three items in the line-up, with impedance value of 10, 70 and 120 (at 100MHz) for use on general signal lines. Mass production is scheduled to begin in September 2006 at 5 million units per month.

[Background]

Chip ferrite beads are widely used for noise filters to suppress EMI or prevent abnormal oscillation in various types of electronic equipment.

. Murata has been commercializing chip monolithic ferrite beads with various sizes and properties to accommodate those applications. Since electronic equipment becomes smaller and more advanced featured recently, there are stronger demands for smaller noise suppression filters. As 0402 size products are beginning to be mass-produced for capacitors and resistors, demands for chip monolithic ferrite beads in the same size are becoming stronger.

Murata has achieved top class low Rdc (direct current resistance) in the industry by improving on existing 0603 products, realizing slender and high-aspect printing incorporating thin Sheet thickness, newly developed inner electrode materials as well as high precision conductance formation/monolithic processes. Those technologies are horizontally deployed for existing products such as BLM03 series (0603 size chip ferrite beads) for improvement of its performance.

[Terminology]

*1 Power amplifier modules for cellular phones
: Power amplifier capable of generating high-output RF signals. There are used for many types of wireless communication equipment including cellular phones. (RF stands for Radio Frequency corresponding to 500MHz to 1GHz bandwidth.)

*2 RoHS Directive: RoHS directive limits the use of lead, cadmium, mercury, hexavalent chromium, PBB and PBDE in electric and electronic equipments, executed by the European Union since July 2006.

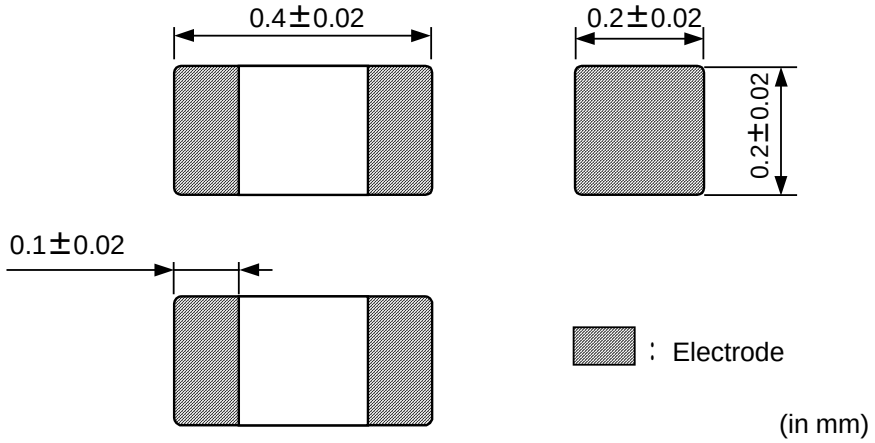
[Features]

1. Realization of 0.4x0.2x0.2mm dimension, smallest in the industry
2. Optimal for prevention of abnormal oscillation in power amplifier modules for cellular phones
3.Three products available in 10, 20 and 120 (measured at 100MHz)
4. External electrode has Ni+Sn plating structure having solder dip resistance. 100% lead-free

[Applications]

・EMI suppression for various types of electronic equipment
・Noise suppression for general signal lines
・Prevention of abnormal oscillation in power amplifier modules for cellular phones

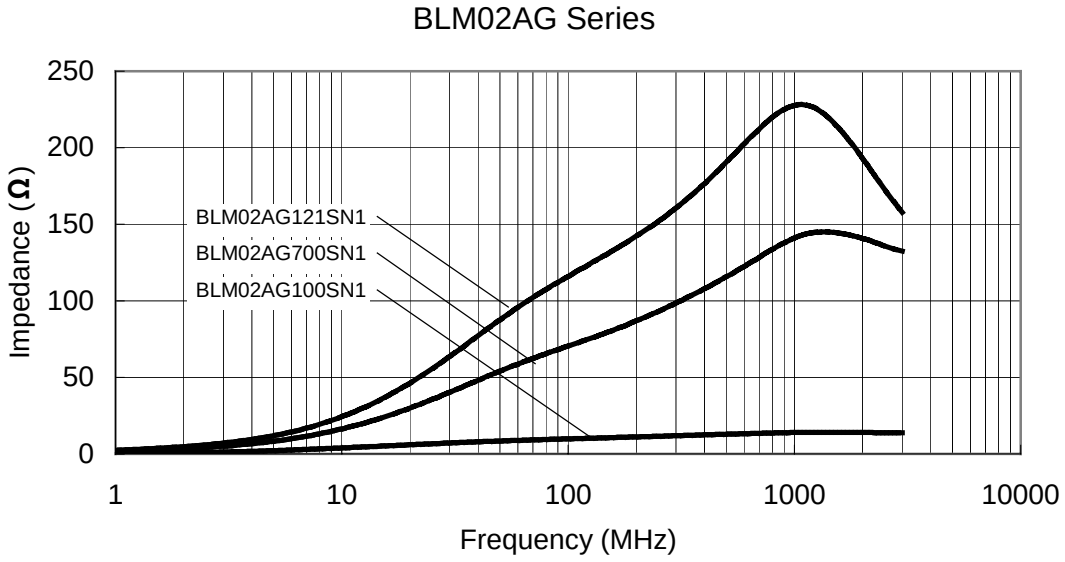
[External Dimensional Diagram]



[Part Number and Specification]

Part Number	Impedance (Ω) at 100MHz	Rate Voltage (mA)	Insulation Resistance (Ω) max.	Operating Temp. Range (℃)
BLM02AG100SN1	10±5Ω	500	0.1	-55～+125
BLM02AG700SN1	70±25%	250	0.5	
BLM02AG121SN1	120±25%	200	0.8	

[Characteristics]



【Sample Price】

10YEN per unit

[Starting Month for Sales]

September 2006

[Production]

・5million units per month in September 2006

・10million units per month in February 2007

[Patents]

Two patent pending