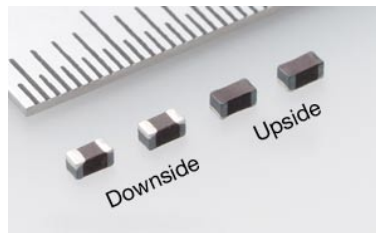


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World's Smallest Wire-Wound Chip Inductor for Power Circuits — Major Size Reduction, with Just 67% Volume and 49% Surface of Conventional Products in Equivalent Performance —



Taiyo Yuden has developed the LBMF1608 (EIA 0603, 1.6 x 0.8 x 0.8mm), the world's smallest wire-wound chip inductor in its class for use in an IC's input power circuit, and mass production is set to begin in October.

The newly developed LBMF1608 achieves a reduction to 67% of the volume, 49% of the surface area, and 36% of the height of the previously smallest 0805 size (2.0 x 1.25 x 1.25mm), while retaining the same low Rdc and high inductance values of that line-up.

Taiyo Yuden will commence mass production of the new LBMF1608 at the Nakanojo Plant (Nakanojo Town, Agatsuma County, Gunma Prefecture) and an affiliate company's plant, at a level of 3 million units per month, with plans to expand that production capacity to 10 million units per month by the end of fiscal year 2006. Sample price is 30 yen per unit.

This product will be on display at the Taiyo Yuden booth for CEATEC Japan, to be held starting October 4, 2005 at Makuhari Messe.

A steadily expanding market for mobile digital equipment is promoting the trend toward improved performance and smaller size, and demand is rising for more compact sizes in component parts, too. In response to such customer needs, Taiyo Yuden has assembled the smallest wire-wound chip inductor for power circuits yet seen.

From the outset of its development of wire-wound chip inductors for power circuits, Taiyo Yuden was determined to thoroughly eliminate all unnecessary space not needed for performance, to develop a truly compact product. For this product, Taiyo Yuden redesigned the parts structure, and optimized the material compound ratios of the outer covering and the shape of the ferrite core, to successfully achieve a further size reduction.

As a result, the company achieved the world's first inductance of 47É H in the EIA 0603 size, while also retaining the existing low Rdc performance levels. This is surely an optimum product for compact, high-performance designs of mobile digital equipment.

The specifications for the new wire-wound chip inductor for Power Circuits LBMF1608 are as follows. (The size for all products is 1.6 x 0.8 x 0.8mm)

	Inductance [1MHz] (μ H)	DC Resistance (Ω)	Rated current (mA)
LBMF1608T1R0M	1.0 μ H \pm 20%	0.09	230
LBMF1608T2R2M	2.2 μ H \pm 20%	0.17	160
LBMF1608T4R7M	4.7 μ H \pm 20%	0.24	110
LBMF1608T100K	10 μ H \pm 10%	0.36	80
LBMF1608T220K	22 μ H \pm 10%	1.00	50
LBMF1608T470K	47 μ H \pm 10%	2.50	35

