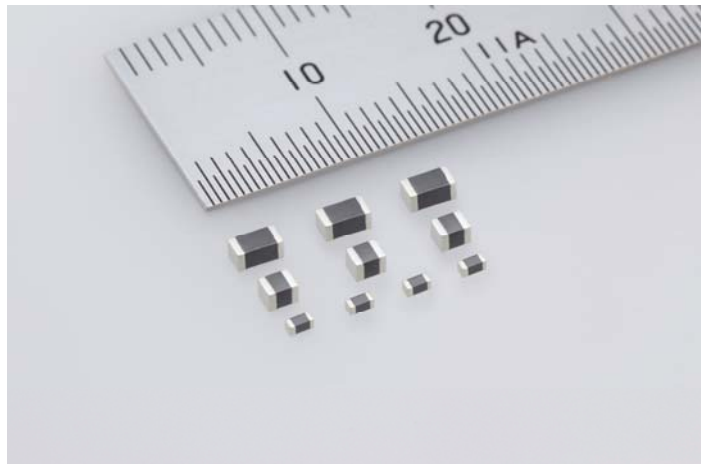


For immediate release

**TAIYO YUDEN Announces an EIA 0603 Size Chip Bead Inductor with the Highest Current Rating in the Industry**

*This product demonstrates High Reliability and High Rated Current making it Ideal for Car Electronics and Industrial Equipment*



TOKYO, November 1, 2012 - TAIYO YUDEN CO., LTD. announced the expansion of its line-up for its chip bead inductor FB series M type, designed for increased noise reduction for power supply use, with the EIA 0603 size FBMJ1608 (1.6 x 0.8 x 0.8mm), the EIA 0806 size FBMH2016 (2.0 x 1.6 x 1.6mm), and the EIA 1206 size FBMH3216 (3.2 x 1.6 x 1.6mm).

These products are used for noise reduction in the power-supply lines of equipment which demand high reliability, such as car electronics and industrial DC motors.

The FBMJ1608HS220NT (with an impedance value of 22 $\Omega$ ) and the FBMJ1608HM180NT (with an impedance value of 18 $\Omega$ ) have achieved the industry's highest rated current of 7.5A with the EIA 0603 size. In addition, both the FBMH2016HM121NT and the FBMH3216HM221NT can also reduce noise in the high frequency band by adopting TAIYO YUDEN's unique molding technology.

Production of these products will commence at the company's Nakanojo plant, (Nakanojo-machi, Agatsuma-gun, Gunma Prefecture) and TAIYO YUDEN (PHILIPPINES), CO., LTD. (Lapulapu City, Cebu), starting November 2012, at a production rate of 1 million units per month for each size. The sample price is 30 yen for each of the sizes.

### **Technology Background**

Additional high reliability is the standard for industrial machines, including the DC motors used in industry or vehicle equipment such as car electronics. And, the chip bead inductors that are used in power supplies for noise reduction must have a high rated current to meet the requirements of increasingly high efficiency and performance. At the same time, miniaturization and high density packaging and the mounting of wireless communication capabilities has been progressing strongly with vehicle equipment and industrial machinery. These products must handle high frequency noise as well.

To respond to these market needs, for the chip bead inductor FB series M type used in power supplies, TAIYO YUDEN has commercially released the FBMJ1608HS220NT and the FBMJ1608HM180NT. These products achieve the industry's largest rated current of 7.5A with the EIA 0603 size. In addition, the use of its unique molding technology with the FBMH2016HM121NT product and the FBMH3216HM221NT product has enabled TAIYO YUDEN to adopt a structure with an internal coil-shaped conductor built into a ferrite core (Figure 1). This enables the products to handle high frequency noise. With this structure, the capacitor component referred to as stray capacitance (Figure 2), which occurs between the internal conductor and the external electrodes, could be suppressed, and TAIYO YUDEN succeeded in improving the impedance characteristics in the high frequency band.

TAIYO YUDEN will continue its focus on providing products that meet market needs. This focus includes an emphasis on new product development in chip bead inductors that are used in power supplies for noise reduction.

### ■ Applications

For noise reduction in the power-supply lines of various equipment, such as car electronics, industrial DC motors, note PCs, servers, printers, LCD TVs, and wireless communication base stations.

The characteristics of the power supply chip bead inductors released this time are as follows.

Parts number	Nominal impedance	Measuring frequency	DC Resistance	Rated current	Temperature range
	[ $\Omega$ ]	[MHz]	[ $\Omega$ ] (max.)	[A] (max.)	Including self-generated heat
FBMJ1608HS220NT	22 $\pm$ 30%	100	0.004	7.5	-40~125°C
FBMJ1608HM180NT	18 $\pm$ 30%		0.004	7.5	
FBMH2016HM121NT	120 $\pm$ 30%		0.015	4.5	
FBMH3216HM221NT	220 $\pm$ 30%		0.020	4.0	

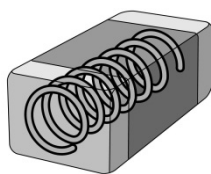


Figure 1 Image

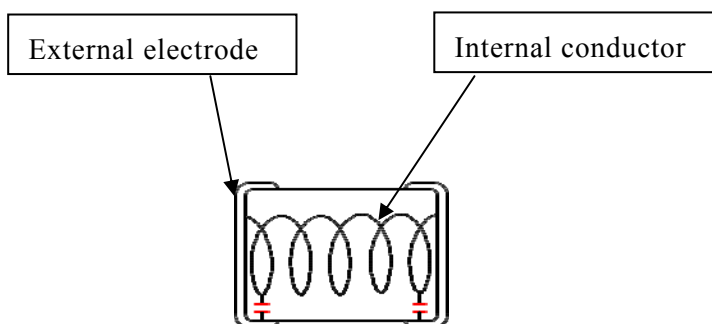


Figure 2 The places where stray capacitance occurs is limited to the ends of the internal conductor adjacent to the external electrodes and the conductor.