For immediate release

TAIYO YUDEN Announces the Expanded Lineup of Multilayer Chip Bead Inductors for Smartphones

Achieving Low DC Resistance and a High Rated Current to Combat Noise in the High Frequency Bands

TOKYO, July 31, 2012 – TAIYO YUDEN CO., LTD. announced today the expansion of its component series of chip bead inductors which are designed to meet state-of-the-art low noise requirements. These products are the multilayer chip bead inductor BK series P type, BKP1005 (1.0 x 0.5 x 0.5mm) and BKP0603 (0.6 x 0.3 x 0.3mm), used in power supplies, and the multilayer chip bead inductor BK series, BK0603 (0.6 x 0.3 x 0.3mm).

The multilayer chip bead inductors are ferrite chip beads that address the high frequency noise generated in the power supply and signal circuits of small mobile devices such as smartphones.

The BKP1005EM221 product (with an impedance of 220Ω) improves on the rated current of the company's conventional product BKP1005HM221 (with an equivalent value) by roughly 11%, from 900mA to 1000mA, and the DC resistance has successfully been reduced by about 17%, from 0.180Ω to 0.150Ω, which increases functionality and efficiency of small mobile devices such as smartphones.

Our lineup has been expanded by 20 product numbers. We have added the 6 products to the new EM series for BKP1005, expanded BKP0603 by adding 3 HS series products and the new HM series of 3 products, and we added 8 products as the TS and TM series for BK0603.

Production has commenced for these products in July, 2012, at TAIYO YUDEN (PHILIPPINES),CO.,LTD. (Lapulapu City, Cebu), at an output pace of 20 million units per month for BKP1005EM, and 50 million units per month for both BKP0603HS•HM and BK0603TS•TM together. The sample price is 20 yen per unit for each of these.

Technology Background

Small mobile devices, such as smartphones, require continued miniaturization and multi-functionality. Many circuits are densely packed into these devises and require provisions for EMC. This is especially the case for smartphones. High frequency noise has a greater impact as the currents are increased in power circuits to get higher performance. Ferrite chip beads are required given their capability of eliminating the noise in the higher frequency bands effectively.

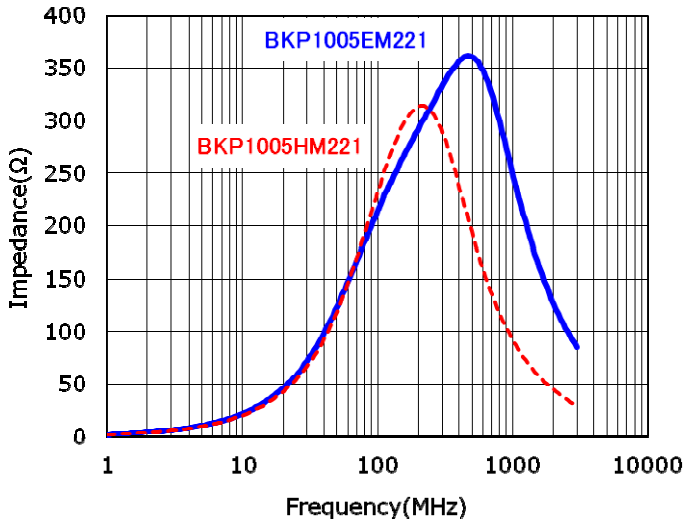
To meet these market requirements, TAIYO YUDEN, through more sophisticated layering and pattern printing techniques, has combined both a low DC resistance and a high rated current. The impedance, which is so important in combating the problem of noise, has also been greatly improved in the high frequency band (see Reference graph 1). TAIYO YUDEN's lineup of chip bead inductors, BKP1005, BKP0603, and BK0603, has been expanded to be best suited for the ever-increasing high performance and efficiency of small mobile devices such as smartphones.

We will continue our focus on providing products that meet the needs of the market, and forge ahead with new product development in multilayer chip bead inductors for noise reduction.

■Applications

To combat noise in the power and signal circuits of small mobile devices such as smartphones and tablet PCs.

Reference graph 1　Impedance frequency characteristics for BKPP1005EM221 and BKP1005HM221



The characteristics of the multilayer chip bead inductor released this time are as follows.

Ordering code	Impedance	Measuring frequency	DC resistance	Rated current
	[Ω]	[MHz]	[Ω](max.)	[mA](max.)
BKP1005EM100	10±25%	100	0.030	2400
BKP1005EM300	30±25%		0.035	2200
BKP1005EM600	60±25%		0.060	1700
BKP1005EM121	120±25%		0.085	1550
BKP1005EM221	220±25%		0.150	1000
BKP1005EM331	330±25%		0.220	800
BKP0603HS100	10±5	100	0.030	1300
BKP0603HS800	80±25%		0.120	1000
BKP0603HS121	120±25%		0.150	850
BKP0603HM100	10±5		0.030	1300
BKP0603HM800	80±25%		0.120	1000
BKP0603HM121	120±25%		0.180	800
BK 0603TS800	80±25%	100	0.180	500
BK 0603TS121	120±25%		0.230	450
BK 0603TS241	240±25%		0.320	400
BK 0603TS601	600±25%		0.750	270
BK 0603TM800	80±25%		0.180	450
BK 0603TM121	120±25%		0.230	400
BK 0603TM241	240±25%		0.380	300
BK 0603TM601	600±25%		0.850	250