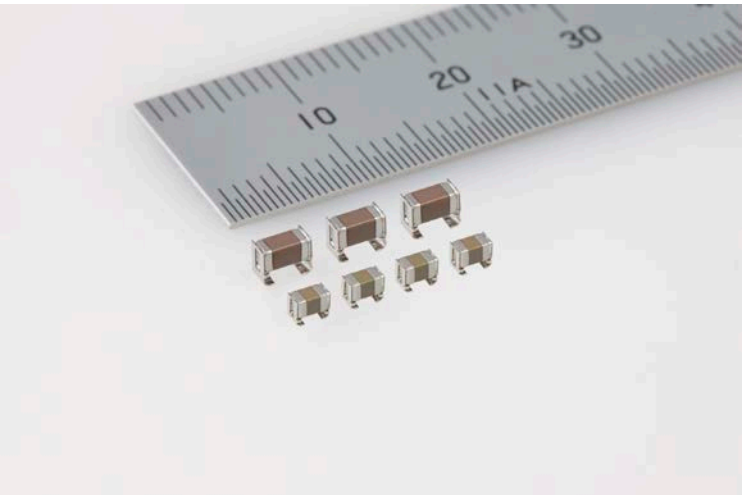
For Immediate Release

TAIYO YUDEN Starts the Commercialization of Multilayer Ceramic Capacitors with Metallic Frames

Remarkably Reducing the Acoustic Phenomenon in Tablet Devices and Notebook PCs



TOKYO, February 4, 2014 – TAIYO YUDEN CO., LTD. today announced the commercialization of multilayer ceramic capacitors “GMV316 BJ106KL” (3.5 x 1.75 x 2.7mm) and “TMV212BBJ106KG” (2.4 x 1.4 x 1.9mm) using metallic frames installed on the external electrodes as a measure against the acoustic phenomenon seen in multilayer ceramic capacitors.

These products are used for smoothing the output in power supply circuits and LCD driver circuits in tablet devices as well as notebook PCs and liquid crystal panels.

The installation of metallic frames on a multilayer ceramic capacitor alleviates the distortion caused by the inverse piezoelectric effect. The sound pressure level can be reduced by approximately 30 dB as compared to TAIYO YUDEN’s conventional product “TMK316 BJ106KL”, which reduces the sound volume of the acoustic phenomenon to almost 1/1000 of the actual value (based on measurement conditions at TAIYO YUDEN).

Production of these multilayer ceramic capacitors will commence at KOREA KYONG NAM TAIYO YUDEN CO., LTD. in Sachon-si, Gyeongsangnam-do from February 2014 onward at a production rate of 1.5 million units per month. A sequential increase in production is being planned. The sample price is 30 yen per unit for both products.

Technology Background

In order to increase the capacitance, a dielectric substance having a high piezoelectric property is used as the material for a multilayer ceramic capacitor. When voltage is applied, such a multilayer ceramic capacitor deforms in a particular direction, causing the substrate to vibrate. Therefore, in tablet devices as well as notebook PCs and liquid crystal panels, the acoustic phenomenon caused by the inverse piezoelectric effect of the multilayer ceramic capacitor mounted in the power supply circuit can be problematic.

As a measure against the acoustic phenomenon of multilayer ceramic capacitors, we have started the commercialization of multilayer ceramic capacitors with metallic frames installed on the external electrodes. The metallic frames absorb the expansion and contraction of the multilayer ceramic capacitor, which helps alleviate the vibrations in the substrate and reduces the acoustic phenomenon.

To address the market needs, TAIYO YUDEN will continue to expand its lineup of products and work toward assuring higher reliability.

■ Application

For smoothing the output in power supply circuits and LCD driver circuits in tablet devices as well as notebook PCs and liquid crystal panels

[Example of characteristics of multilayer ceramic capacitors provided with frames]

Part number	Capacitance [μF]	Capacitance tolerance	Temperature characteristics	Rated voltage [V]	Length (L) [mm]	Width (W) [mm]	Thickness (T) [mm]
GMV316 BJ106KL	10	±10%	X5R	35	3.5 ± 0.3	1.75 ± 0.2	2.7 ± 0.2
TMV212BBJ106KG	10	±10%	X5R	25	2.4 ± 0.2	1.4 ± 0.2	1.9 ± 0.1