

For immediate release

Taiyo Yuden Introduces Low-Profile Multilayer Ceramic Capacitors, Essential for Slimmer Cell Phones

Industry-Leading Capacitance of 0.47µF in EIA 0402 Case Size with 0.22 mm Height



TOKYO, July 9 2009 — Taiyo Yuden Co., Ltd. announced today the release of a new multilayer ceramic capacitor with an industry-leading capacitance of 0.47μ F. The new AMK105BJ474MC capacitor measures only 1.0 x 0.5 mm (EIA 0402 case size), and has a maximum height of just 0.22 mm. The new product is specifically designed for the IC power lines used in compact mobile devices such as cell phones where high-density surface mounting is essential.

Taiyo Yuden's portfolio of high-value, low-profile multilayer ceramic capacitors now includes a total of 12 products, including three different sizes, demonstrating the company's strong commitment to providing superior products in this field. Taiyo Yuden is well-known for milestone products such as the AMK105BJ225MP ($1.0 \times 0.5 \times 0.33 \text{ mm}$, $2.2\mu\text{F}$) and AMK107BJ106MK ($1.6 \times 0.8 \times 0.5 \text{ mm}$, $10\mu\text{F}$).

Mass production of three products sized $1.0 \ge 0.5 \ge 0.22 \text{ mm}$ (EIA 0402) will begin in August 2009 at the company's Tamamura Plant in Gunma Prefecture, Japan. Production is expected to reach a total of 10 million units per month, including all three sizes. The prices for samples of EIA 0402 and 0603 sizes are 4 yen and 10 yen per unit, respectively.

Technology Background

Smaller, slimmer high-performance cell phones and smart phones are growing increasingly popular. They boast larger LCD screens as well as more and better functions such as Internet connectivity, audio and visual entertainment, and high-quality photographic capabilities. In order to keep devices from getting bigger when all this new functionality is added, demand has been growing for low-profile surface-mount components such as low-profile multilayer ceramic capacitors for use in

LCD modules and camera modules, like the Taiyo Yuden products announced here. By incorporating these low-profile components, a more efficient component layout can be attained, which in turn leads to more advanced functionality in devices in ever smaller and slimmer dimensions.

Since the release of its nickel-electrode high-value multilayer ceramic capacitor in 1984, Taiyo Yuden has worked to create ever more compact and higher value capacitors by developing material and thin layer technologies for multilayer ceramic capacitors. Those technologies were employed in the new low-profile multilayer ceramic capacitors, too, to achieve a high capacitance value of 0.47μ F at maximum in a size of just 1.0 x 0.5 mm (EIA 0402), with a maximum height of only 0.22 mm.

Taiyo Yuden is committed to providing the world with ever more compact, ever thinner multilayer ceramic capacitors to support the unending quest for smaller devices and modules.

Ordering code	Capacitance	Temperature characteristic	Rated voltage	Length [mm]	Width [mm]	Thickness [mm]	
LMK105BJ104KC	0.1µF	-55 - +85°C	10V	1.0 ± 0.05	0.5±0.05	0.20±0.02	*
JMK105BJ224KC	0.22µF	-55 - +85°C	6.3V	1.0±0.05	0.5±0.05	0.20±0.02	*
AMK105BJ474MC	0.47µF	-55 - +85°C	4V	1.0 ± 0.05	0.5±0.05	$0.20{\pm}0.02$	*
LMK105BJ104KP	0.1µF	-55 - +85°C	10V	1.0±0.05	0.5±0.05	0.30±0.03	
LMK105BJ224KP	0.22µF	-55 - +85°C	10V	1.0±0.05	0.5±0.05	0.30±0.03	
JMK105BJ474KP	0.47µF	-55 - +85°C	6.3V	1.0±0.05	0.5±0.05	0.30±0.03	
JMK105BJ105KP	1µF	-55 - +85°C	6.3V	1.0±0.05	0.5±0.05	0.30±0.03	
AMK105BJ225MP	2.2µF	-55 - +85°C	4V	1.0±0.05	0.5±0.05	0.30±0.03	
EMK107BJ105KK	1µF	-55 - +85°C	16V	1.6±0.1	0.8±0.1	0.45±0.05	
LMK107BJ225KK	2.2µF	-55 - +85°C	10V	1.6±0.1	0.8±0.1	0.45±0.05	
JMK107BJ475MK	4.7µF	-55 - +85°C	6.3V	1.6±0.1	0.8±0.1	0.45±0.05	
AMK107BJ106MK	10µF	-55 - +85°C	4V	1.6±0.1	0.8±0.1	0.45±0.05	

Taiyo Yuden's portfolio of low-profile multilayer ceramic capacitors is shown below:

(* indicates new products.)