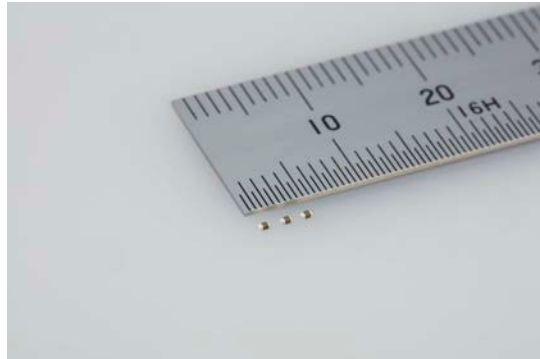


For immediate release

TAIYO YUDEN Launches 1005-Size Medium-to-High Voltage Multilayer Ceramic Capacitors

For Automotive and IT Infrastructure Equipment, with a 75% Smaller Volume Than Our Conventional Products



TOKYO, April 25, 2019 — TAIYO YUDEN CO., LTD. announced today the commercialization of nine products, including the 1005-size medium-to-high voltage multilayer ceramic capacitor HMK105B7103KVHFE (1.0 x 0.5 x 0.5 mm, with a rated voltage of 100 V and a rated capacitance of 10000 pF). We have sophisticated the materials and process technologies we have nurtured to achieve approximately a 75% reduction in size compared to our conventional product HMK107B7103KAHT (1.6 x 0.8 x 0.8 mm). These products are compatible with AEC-Q200, a reliability test qualification standard for automotive passive components.

The products we launched today will be used for anti-noise measures and snubber applications for power supply circuits in automotive bodies and infotainment systems, as well as IT infrastructure equipment such as base-station communication device and servers.

Production of the multilayer ceramic capacitors commenced at the company's Tamamura Plant (Tamamura-machi, Sawa-gun, Gunma Prefecture, Japan) from April 2019 at a production rate of ten million units per month, with a sample price of 5 yen per unit.

Technology Background

In recent years, more and more automotive power supply circuits have been driven at a voltage of 48 V, typified by those used in mild-hybrid vehicles. On the other hand, together with performance enhancement and the market growth of IoT, IT infrastructure equipment such as base-station communications devices and servers are using switching-type DC-DC converters in their power supply circuits to achieve higher efficiency.

In these power supply circuits, multilayer ceramic capacitors are used in the snubbers as a measure against noise on power supply input lines and noise generated by switching circuits. Capacitors with a rated voltage of 100 V have been used in such equipment to achieve higher reliability. As devices increase in functionality and use higher-density packaging, however, smaller on-board multilayer ceramic capacitors are desired.

To address these market needs, TAIYO YUDEN has sophisticated its materials and process technologies to launch HMK105B7103KVHFE, which has achieved an approximately 75% reduction in size compared to our conventional product.

TAIYO YUDEN will continue to further improve product characteristics to respond to needs from markets requiring high reliability.

■Application

Anti-noise measures and snubbers for power supply circuits in automotive bodies and infotainment systems, as well as IT infrastructure equipment such as base-station communications devices and servers

■Characteristics

Part number	Rated voltage	Temperature characteristics	Rated capacitance	Capacitance tolerance	Length [mm]	Width [mm]	Thickness [mm]
HMK105B7471KVHFE	100V	X7R	470pF	±10%	1.0±0.05	0.5±0.05	0.5±0.05
HMK105B7681KVHFE	100V	X7R	680pF				
HMK105B7102KVHFE	100V	X7R	1000pF				
HMK105B7152KVHFE	100V	X7R	1500pF				
HMK105B7222KVHFE	100V	X7R	2200pF				
HMK105B7332KVHFE	100V	X7R	3300pF				
HMK105B7472KVHFE	100V	X7R	4700pF				
HMK105B7682KVHFE	100V	X7R	6800pF				
HMK105B7103KVHFE	100V	X7R	10000pF				

*The part numbers may change depending on the application.

Note: The products are tested based on the test conditions and methods defined in AEC-Q200. Please consult with TAIYO YUDEN for the details of the product specifications and AEC-Q200 test results, etc., and please review and approve TAIYO YUDEN's product specifications before ordering.

TAIYO YUDEN CO., LTD. Product Inquiries: <https://www.yuden.co.jp/ut/contact/>