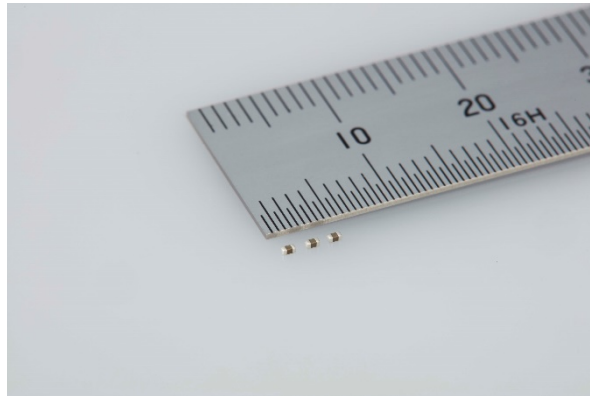


For immediate release

**TAIYO YUDEN Achieves a Rated Voltage of 100 V for 1005-Size  
Automotive Multilayer Ceramic Capacitors**  
*Proposing Miniaturization of Multilayer Ceramic Capacitors for Automobiles  
with Enhanced Functionality*



TOKYO, January 9, 2020 — TAIYO YUDEN CO., LTD. announced today the commercialization of 11 products, including the 1005-size multilayer ceramic capacitor HMR105 B7103KV (1.0 x 0.5 x 0.5 mm, with a rated voltage of 100 V and a capacitance of 0.01  $\mu$ F).

We have sophisticated the materials and process technologies nurtured by us to improve rated voltage to 100 V compared to our conventional product UMR105 B7103KV (1.0 x 0.5 x 0.5 mm, with a rated voltage of 50 V and a capacitance of 0.01  $\mu$ F), and achieve approximately a 75% reduction in size compared to our 1608-size (1.6 x 0.8 x 0.8 mm) conventional product HMR107 B7103KA (rated voltage of 100 V, capacitance of 0.01  $\mu$ F). The product is compatible with AEC-Q200, a reliability test qualification standard for automotive passive components.

The products we launched today will be used for power line anti-noise parts that can be used in on-board devices for automotive power trains such as engines and transmissions.

Production of the multilayer ceramic capacitors commenced at the company's Tamamura Plant (Tamamura-machi, Sawa-gun, Gunma Prefecture, Japan) from December 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, electrification and electronification of automobiles have increasingly progressed in step with the proliferation of electric and hybrid vehicles. Under this situation, demands for smaller dimensions and larger capacity, together with high reliability, have also risen for multilayer ceramic capacitors that are used as automotive electronic parts.

EMC measures are required for such devices to remove external and internally generated noise to prevent malfunction, and the electronic components used inside must withstand high voltages. In addition, as devices increase in functionality and use higher-density packaging, smaller on-board multilayer ceramic capacitors are desired.

TAIYO YUDEN has increasingly expanded its automotive product lineup to realize compatibility between larger capacitance and high reliability in broader product sizes. With this commercialization, we have sophisticated our materials and process technologies to launch HMR105 B7103KV, for which the rated voltage has been improved to 100 V in the 1005 size.

TAIYO YUDEN will continue to further expand our product lineup to respond to needs from markets requiring high reliability.

■Application

Power line anti-noise parts that can be used in on-board devices for automotive power trains such as engines and transmissions

■Characteristics

Part number	Rated voltage	Temperature characteristics	Rated capacitance	Capacitance tolerance	Length	Width	Thickness
HMR105 B7221KV	100V	X7R	220pF	±10%	1.0±0.05 mm	0.5±0.05 mm	0.5±0.05 mm
HMR105 B7331KV	100V	X7R	330pF				
HMR105 B7471KV	100V	X7R	470pF				
HMR105 B7681KV	100V	X7R	680pF				
HMR105 B7102KV	100V	X7R	1000pF				
HMR105 B7152KV	100V	X7R	1500pF				
HMR105 B7222KV	100V	X7R	2200pF				
HMR105 B7332KV	100V	X7R	3300pF				
HMR105 B7472KV	100V	X7R	4700pF				
HMR105 B7682KV	100V	X7R	6800pF				
HMR105 B7103KV	100V	X7R	0.01μF				

---

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/cs/contact/>