TAIYO YUDEN

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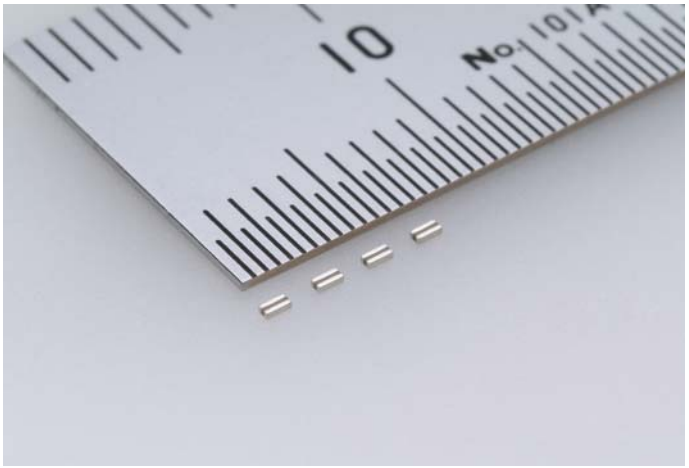
Taiyo Yuden Introduces the Low ESL Capacitor Featuring an Industry-High Capacitance of 1µF with 0.3mm Thickness

An LW Reversal Decoupling Capacitor
Thickness Reduced by 40% Compared with Existing Taiyo Yuden Products



TOKYO, January 6, 2010 — Taiyo Yuden Co., Ltd. today announced significant new additions to its expanding LW Reversal Decoupling Capacitor (LWDC™) lineup. Consistent with the Company's existing portfolio of low ESL LW Reversal Decoupling Capacitors that position external electrodes on the long dimension of each device allowing the length-to-width ratio to be reversed, the new JWK105BJ 105MP and AWK105C6 105MP, each boasting dimensions of 0.52 x 1.00 x 0.30mm, not only offer industry-high capacitance of 1µF in products of the same size, but also successfully reduce the profile of the existing EIA 0204 (a thickness of 0.5mm) by 40%.

These multilayer ceramic capacitors combine the dual characteristics of lower ESL and higher capacitance values for the decoupling of high-speed IC power lines such as CPUs. By realizing a lower profile, Taiyo Yuden is confident in its ability to contribute to more compact, thinner devices.

Production for both products will commence in January 2010 at the Company's Tamamura Plant in Gunma Prefecture, Japan at an output pace of 10 million units per month. The price for samples is 15 yen per unit.

Technology Background

With personal computers and other electronic devices increasing both in performance and function, the trend toward high-speed drives of ICs such as CPUs and GPUs backed by a low voltage and high current is progressing unabated. As developments in high-speed ICs advance more and more, it is becoming increasingly essential to place higher capacitance, lower ESL decoupling capacitors in proximity to ICs to ensure stable operations.

Taiyo Yuden's LW Reversal Decoupling Capacitors have been designed such that external electrodes are positioned on the long dimension of each device. By shortening the dimension between electrodes, the Company has therefore reduced ESL compared with other commonly used multilayer ceramic capacitors. Furthermore, Taiyo Yuden has succeeded in lowering ESR characteristics through wider contact areas

between internal and external electrodes. Since the release of its nickel-electrode high-value multilayer ceramic capacitor in 1984, Taiyo Yuden has worked to create lower profile, higher capacitance multilayer ceramic capacitors by developing ever more sophisticated technologies that realize multilayer formation and increase the number of layers. In employing these technologies in the newly released LW Reversal Decoupling Capacitors, the Company has achieved high capacitance values up to 1μF in a size of just 0.5 x 1.0mm (EIA 0204) with a height of only 0.3mm.

Looking ahead, Taiyo Yuden will continue to develop more compact, lower profile and higher capacitance multilayer ceramic capacitors in tune with demand and electronic device trends.

The specifications for the newly introduced LW Reversal Decoupling Capacitors are presented as follows:

Ordering code	Capacitance	Temperature characteristics		Rated voltage	Length [mm]	Width [mm]	Thickness [mm]
		Capacitance change	Temperature range				
JWK105BJ 105MP	1.0μF	X5R		6.3V	0.52±0.05	1.00±0.05	0.30±0.05
		±15%	-55～+85°C				
AWK105C6 105MP	1.0μF	X6S		4.0V	0.52±0.05	1.00±0.05	0.30±0.05
		±22%	-55～+105°C				