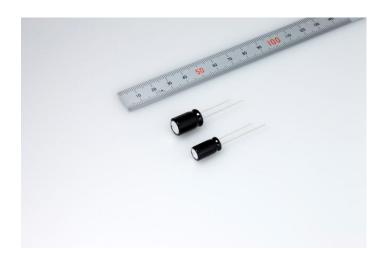
TAIYO YUDEN

For immediate release

TAIYO YUDEN Announces the Commercial Production of a High Temperature Cylinder Type Polyacene Capacitor Guaranteed to Operate up to 70°C

With an Improved Maximum Operating Voltage, Ideally Suited to Smart Meters and SSD Storage Servers



TOKYO, August 28, 2012 – TAIYO YUDEN CO., LTD. today announced the expansion of its line-up for cylinder type polyacene capacitors, a super high-end product with such features as high capacity density and low ESR. This is a high temperature product with an improved operating temperature and a guaranteed range upper limit of up to 70°C.

These products are used in several applications including backup power supplies for the main units of smart meters or for the centralized meter reading system, which together make up a smart grid. In addition, the products are also used in momentary power failure backup applications, for example, in SSD storage servers. PAS0815LS2R5105 (ϕ 8.0mm, L:15mm, nominal capacitance 1F, maximum usable voltage 2.5V), compared to TAIYO YUDEN's conventional product, PAS0815LR2R3105, has the same size, capacitance and internal resistance as before, while the maximum usable voltage has been improved by 8% and the upper limit for the operating temperature range has been improved to 70°C.

Production of the entire line-up will commence at TAIYO YUDEN's subsidiary company, TAIYO YUDEN ENERGY DEVICE CO., LTD. (Ueda, Nagano prefecture), from August 2012, at a combined production rate of 200,000 units per month. The sample price is 100 yen per unit for PAS0815LS2R5105, and 200 yen per unit for PAS1016LS2R5205.

Additionally, from September onward, TAIYO YUDEN also plans to offer sequential sample shipments of large volume types with a higher capacitance.

Technology Background

We have enhanced the capability of smart meters and centralized meter reading systems, that are used in the smart grids which enable various electrical power control via a communication function, to better provide different power supply and demand, such as the prevention of

blackouts and the adjustment of power transmission, by adding the use of Wireless communication functions and real-time clock functions. For this reason, a longer life is required, and a large current must be supplied during wireless communication as compared to the batteries that have been used as power supplies for backup with conventional meters. The cylinder type polyacene capacitor, characterized by its low environmental impact, over 100,000 charges and discharges, high capacity density and low ESR, is now being adopted for these kind of applications.

Smart meters must be used outdoors and the performance of mounted parts must be guaranteed at high temperatures. Conventional cylinder type polyacene capacitors could only support an upper limit for the operating temperature range of 60°C, and there has been a requirement in the past for them to be guaranteed to work at higher temperatures. By reviewing the design of the electrolyte used in the polyacene capacitor, TAIYO YUDEN was able to improve the maximum usable voltage and also the upper temperature limit of the operating range, while maintaining the size, capacitance and internal resistance.

TAIYO YUDEN intends to speed up and consolidate its efforts in the field of energy devices and we will further development products such as polyacene capacitors to accurately respond to the market needs in the future. This is an example of our commitment and ability to bring these products to the market and address these needs.

These products will be exhibited in the TAIYO YUDEN booth at "CEATEC JAPAN 2012" to be held at the Makuhari Messe (Mihama-ku, Chiba-City, Chiba Prefecture) from the 2nd of October of this year.

■ Applications

In backup power supplies for smart meters and centralized meter reading systems, etc., and in such applications as the temporary power failure backup of SSD storage servers, etc.

The line-up for the cylinder type polyacene capacitor released this time is as follows.

	Ordering code	Max. usable voltage	Nominal capacitance	Internal resistance	Operating temperature range	Dimensions / φ D	Dimensions / L
\circ	PAS0815LS2R5105	2.5V	1 F	70 m Ω	-25 to 70℃	8.0mm	15.0mm
\circ	PAS1016LS2R5205		2 F	50 m Ω		10.0mm	16.0mm
$\stackrel{\wedge}{\simeq}$	PAS0815LA2R5205	2.5V	2 F	700 m Ω	-25 to 70℃	8.0mm	15.0mm
$\stackrel{\wedge}{\simeq}$	PAS1020LA2R5475		4.7 F	$200 m\Omega$		10.0mm	20.0mm
$\stackrel{\wedge}{\simeq}$	PAS1220LA2R5106		10 F	$150 m\Omega$		12.5mm	20.0mm
$\stackrel{\wedge}{\simeq}$	PAS1235LA2R5206		20 F	$100 \text{m}\Omega$		12.5mm	35.0mm
*	PAS1020LA3R0405	3.0V	4 F	300 m Ω	-25 to 60°C	10.0mm	20.0mm
*	PAS1220LA3R0905		9 F	$200 m\Omega$		12.5mm	20.0mm
*	PAS1235LA3R0206		20 F	100 m Ω		12.5mm	35.0mm
*	PAS1840LA3R0506		50 F	70 m Ω		18.0mm	40.0mm

 \bigcirc : production will commence, $\stackrel{\wedge}{\bowtie}$: sequential sample shipments from September,

★:in production