

For immediate release

TAIYO YUDEN: Thin-Type Polyacene Capacitor Developed for Improved Rated Voltage and Reliability

Developed for Smartphone's LED Flash and SSD's Uninterruptible Power Source Applications



TOKYO, September 13, 2011 — TAIYO YUDEN CO., LTD, has revised the design of electrolytes used in polyacene capacitors, and successfully developed a thin-type polyacene capacitor that achieves improvements in both rated voltage and reliability. The “PAS2126FR2R7504” (26x20x0.9mm, rated voltage 2.75V) is suitable for use as a peak current assist in a smartphone’s LED flash and uninterruptible power sources for solid state drive (SSD). Compared with previous TAIYO YUDEN products, the dimensions and characteristics remain the same while the rated voltage is improved by 10% and operations can be guaranteed even at 70°C. Electrical energy is increased by approximately 20%, raising expectations of improved LED flash performance for brighter image shots with smartphones in dark places. In addition, the “PAS2126FR5R5254” (26x20x2.0mm, height is the maximum value) connects cells in series to achieve a rated voltage of 5.5V.

TAIYO YUDEN is aiming to start mass production of “PAS2126FR2R7504” and “PAS2126FR5R5254” during 2012.

Technology Background

The trend toward larger screen sizes in the smartphone or tablet PC has led to demand for thinner camera modules, resulting in an LED light with a lower profile being used as an auxiliary light source for shooting pictures. However, the LED light does not obtain adequate illumination for shooting bright images in dark places, raising the need for mounting a bright LED flash.

In August 2010, TAIYO YUDEN announced the thin-type polyacene capacitor “PAS2126FR2R5504” that meets these requirements. With such features as a low environmental burden, high capacitance density, low ESR, and an ability to supply high current in a short period of

time, the product is suited to use as a peak power assist for LED flash.

Now the company's technology has advanced even further, successfully developing a technology that boosts the rated voltage (from 2.5V to 2.75V) and reliability (highest operating temperature at which minimum 70% of the initial capacitance is maintained, raised from 60°C to 70°C). Development of a polyacene capacitor electrolyte with higher voltage and greater resistance to electrolysis at high temperatures has achieved an increase in energy density and reliability in high-temperature environments, to enable a brighter LED flash and continuous lighting.

TAIYO YUDEN is continuing development of the polyacene capacitor in response to market needs, and is accelerating and strengthening efforts in the energy device industry.

The “PAS2126FR2R7504,” “PAS2126FR5R5254” and their technology will be exhibited at the TAIYO YUDEN booth during CEATEC JAPAN 2011 to be held at Makuhari Messe (Mihama-ku, Chiba-City, Chiba Prefecture) from October 4 to October 8, 2011.

[Reference] Thin-type polyacene capacitor characteristics table

Ordering code	Capacitance	Impedance [mΩ]	Rated voltage	Length [mm]	Width [mm]	Thickness [mm]
PAS2126FR2R7504	0.5F	90	2.75V	26±1.0	20±1.0	0.9 Max
PAS2126FR5R5254	0.25F	200	5.5V	26±1.0	20±1.0	2.0 Max

Application

Peak current assist for LED flash of smartphone, tablet PC, digital still camera, and digital camcorder, peak current assist for portable printer, portable scanner, etc., and uninterruptible power source for SSD