Press Release

Nippon Chemi-Con Corporation
September 21, 2016

Conductive Polymer Aluminum Solid Capacitors Addition of 25V high-capacitance products and 35V products due to new high voltage technology

Nippon Chemi-Con has established a new technology for increasing the voltage of capacitors by reviewing conductive polymer materials and methods. We will contribute to the downsizing and higher efficiency of power supplies by applying this technology and developing conductive polymer aluminum solid capacitors with 25V and high capacitance, as well as 35V, for adapters, LED voltage booster circuits and small power supplies.

Radial lead type conductive polymer aluminum solid capacitors PSG Series has increased its capacitance by 40%, from 390µF to 560µF, for products sized φ10 x 11.5 Lmm with 25V rated voltage. This was achieved by adopting the new high-voltage technology, optimization of the element structure, and adoption of aluminum electrode foil with larger surface area. We will propose the Series for microinverters and adapters for USB PDs as products that contribute to downsizing and higher efficiency.

We have also succeeded in developing products with a rated voltage of 35V (conventionally up to 25V) using this technology and have already started mass production by adding them to the product lineup.

We have also developed products with a rated voltage of 35V for the resin-molded chip type conductive polymer aluminum solid capacitors PMA Series through the new high-voltage technology and optimization of the molding method.

The PMA Series uses our original technology to seal elements with a resin mold without using an aluminum case or sealing rubber. As a result, the product height has been reduced to 3.0 mm Max. These products contribute to the downsizing and thinning of power supplies, higher reliability and lower costs as an alternative for tantalum capacitors. Conventionally, products with a rated voltage up to 25V were commercialized. With the addition of 35V products, we will propose them for downsizing and higher efficiency of LED voltage booster circuits.

[Samples and Mass Production]

PSG Series - 25V high capacitance products

Samples: April 2016

Mass production: October 2016

PSG Series - 35V

Samples: in production (June 2015)

Mass production: in production (December 2015)

[Production Site]　Chemi-Con Yonezawa Corp.

[Main Specifications]

- Category temperature range: -55°C to +105°C
- Endurance: guarantees 15,000 hours at 105°C

Newly added products

Series	Rated voltage [Vdc]	Capacitance [μF]	Size [mm]	Equivalent series resistance (ESR) [mΩmax] [20°C,100k-300kHz]	Rated ripple current [mArms/105°C,100kHz]
PSG	25	560	φ10x11.5	14	5,000
PSG	35	82	φ8x11.5	18	4,380
PSG	35	120	φ10x11.5	16	4,670

PMA Series - 35V

Samples: October 2016

Mass production: February 2017

[Production Site]　Chemi-Con Yonezawa Corp.

[Main Specifications]

- Category temperature range: -55°C to +105°C
- Endurance: guarantees 5,000 hours at 105°C

Newly added products

Series	Rated voltage [Vdc]	Capacitance [μF]	Size [mm]	Equivalent series resistance (ESR) [mΩmax] [20°C,100k-300kHz]	Rated ripple current [mArms/105°C,100kHz]
PMA	35	12	7.0x7.0x3.0	85	1,500

[Product Appearance]