

Aluminum electrolytic capacitors

Robust SMD design in hybrid polymer technology

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TDK Corporation (TSE:6762) has extended its range of hybrid polymer aluminum electrolytic capacitors with a new SMD series. The components are now available in 25 V DC / 330 μ F and 35 V DC / 270 μ F versions, each with dimensions of 10 x 10.2 mm (d x l). The capacitors, which are RoHS-compatible and qualified to AEC-Q200, are designed for a maximum operating temperature of 125 °C and offer a long service life of at least 4000 hours.

Two electrical parameters in particular characterize the compact capacitors: their extremely low ESR value of ≤ 20 m Ω and the high ripple current capability of 2.8 A at 125 °C and 100 kHz. These excellent values are made possible by the hybrid polymer technology.

In addition to automotive electronic control units, the capacitors with the ordering codes B40900B5337M000 (330 μ F) and B40900B7277M000 (270 μ F) can also be used in industrial applications.

The new SMD series supplements the world's first axial hybrid polymer aluminum electrolytic capacitors. These capacitors with dimensions of between 14 x 25 mm and 16 x 30 mm (d x l) are designed for rated voltages of 25 V, 35 V or 63 V and offer capacitance values from 390 to 2100 μ F. Despite their low weight and volume, they offer a very high current capability for automotive power modules.

Main applications

- Automotive electronic control units
- Industrial applications

Main features and benefits

- Long service life of 4000 hours at 125 °C
- Very low ESR of ≤ 20 m Ω
- High ripple current capability of 2.8 A
- Compact dimensions of 10 x 10.2 mm (d x l)

About TDK Corporation

TDK Corporation is a leading electronics company based in Tokyo, Japan. It was established in 1935 to commercialize ferrite, a key material in electronic and magnetic products. TDK's comprehensive portfolio features passive components such as ceramic, aluminum electrolytic and film capacitors, as well as magnetics, high-frequency, and piezo and protection devices. The product spectrum also includes sensors and sensor systems such as temperature and pressure, magnetic, and MEMS sensors. In addition, TDK provides power supplies and energy devices, magnetic heads and more. These products are marketed under the product brands TDK, EPCOS, InvenSense, Micronas, Tronics and TDK-Lambda. TDK focuses on demanding markets in the areas of information and communication technology and automotive, industrial and consumer electronics. The company has a network of design and manufacturing locations and sales offices in Asia, Europe, and in North and South America. In fiscal 2019, TDK posted total sales of USD 12.5 billion and employed about 105,000 people worldwide.

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