

## Capacitors

### **TDK offers hybrid polymer capacitors with considerably enhanced ripple current capability**

December 9, 2021

TDK Corporation (TSE: 6762) presents with the B40640B\* and B40740B\* series hybrid polymer capacitors with a very high ripple current capability increased by up to 29 per cent compared to preceding types. The ripple current capability is now up to 35 A (20 kHz, 125 °C). The new types are designed for a rated voltage of 63 V, cover a capacitance range from 390 µF to 720 µF, and offer an extremely low ESR value. For example, with a cup size of 16 mm x 30 mm (D x H) and an ambient temperature of 20 °C, an ESR of 3.9 mΩ at 20 kHz can be achieved. Even at an operating temperature of -40 °C, the ESR is just 5.4 mΩ.

Due to their highly rugged construction, the capacitors offer a high vibration strength of 60 g and can be operated at up to 150 °C. A very low thermal resistance is achieved due to the inner structure of all axial-hybrid polymer capacitors, which are optimized for the thermal connection to a heatsink. Moreover, the axial design ensures a stable connection to the heatsinks throughout the service life. Depending on the capacitance values, the dimensions vary between 14 mm x 25 mm and 16 mm x 30 mm (D x H). The RoHS-compatible capacitors are available in axial-lead (B40640B\*) and solder star (B40740B\*) designs, both with and without PET hose.

The rugged design and excellent electrical parameters of these capacitors are ideally suited to automotive applications in 48 V on-board supplies.

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#### **Main fields of application**

- Automotive applications for 48 V on-board supplies

#### **Main features and benefits**

- Very high ripple current capability of up to 35 A (20 kHz, 125 °C)
- Extremely low ESR value of just 3.9 mΩ at 20 kHz and 20 °C
- High vibration strength of 60 g

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## About TDK Corporation

TDK Corporation is a world leader in electronic solutions for the smart society based in Tokyo, Japan. Built on a foundation of material sciences mastery, TDK welcomes societal transformation by resolutely remaining at the forefront of technological evolution and deliberately “Attracting Tomorrow.” It was established in 1935 to commercialize ferrite, a key material in electronic and magnetic products. TDK’s comprehensive, innovation-driven 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 automotive, industrial and consumer electronics, and information and communication technology. The company has a network of design and manufacturing locations and sales offices in Asia, Europe, and in North and South America. In fiscal 2021, TDK posted total sales of USD 13.3 billion and employed about 129,000 people worldwide.

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