

## Transformers

# TDK offers compact shielded transformers for ultrasonic applications

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TDK Corporation (TSE:6762) presents the new B78302A\* series of compact EPCOS transformers with innovative E5 cores for ultrasonic applications. It comprises three types with transformation ratios between 1:1:10.8 and 1:1:15.3. Depending on the type, the new transformers in SMD design offer inductance values between 2 mH and 4 mH and are suitable for frequencies from 50 kHz to 300 kHz. The AEC-Q200 qualified components have very compact dimensions of only 8.1 x 7.0 x 7.0 mm and are shielded by a counter-winding for better interference suppression. The permissible temperature range is between -40 °C and +125 °C.

The transformers are used in ultrasonic applications for optimum impedance matching between the driver IC and the ultrasonic transmitter or receiver. Typical applications include parking aids, industrial robots, drones and logistics robots, Automated Guided Vehicles (AGV) and systems for level measurement.

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### Main applications

- Parking aids
- Industrial robots
- Drones and logistics robots
- AGV
- Level measurement systems

### Main features and benefits

- Very compact dimensions of only 8.1 x 7.0 x 7.0 mm
- Operating frequencies from 50 kHz to 300 kHz
- Permissible temperature range from -40 °C to +125 °C
- Qualified according to AEC-Q200

## 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 2022, TDK posted total sales of USD 15.6 billion and employed about 117,000 people worldwide.

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