

## Inductors

# TDK extends its wide range of compact SMT high-current chokes

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TDK Corporation (TSE:6762) has extended its range of EPCOS ERU-SMT power inductors with the new ERU19, ERU24 and ERU27 (B82559\*) series. Each product line is comprised of up to 10 types, covering inductance values from 1.0  $\mu\text{H}$  to 30  $\mu\text{H}$ . Overall, a range of saturation currents at 25 °C from 11.5 A DC to 101.5 A DC is covered.

A key feature of the power inductors is their compact design. With a footprint of just 19.9 x 18.5 mm<sup>2</sup> to 27.8 x 25.8 mm<sup>2</sup>, they take up 14 per cent less space on the printed circuit board (PCB) than their predecessor. The low insertion heights between 7.65 mm and 16.9 mm vary depending on the type. This low-profile design is based on a flat rectangular helical winding technology, resulting in lower losses.

The ohmic resistances are between 0.46 m $\Omega$  and 17.0 m $\Omega$ . The new high-current chokes are designed for operating temperatures between -40 °C and +150 °C. The product's additional third soldering pad contributes to high mechanical stability on the PCB. The new components, which are RoHS-compatible and AEC-Q200 qualified, are used as output and storage chokes in a wide variety of power supply topologies. Use cases include point-of-load (POL) converters, DC-DC converters, high-current switch-mode power supplies and inverters for photovoltaic systems and automotive applications.

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### Main fields of application

- Output and storage chokes for point-of-load (POL) converters
- DC-DC converters and high-current switch-mode power supplies
- Inverters for photovoltaic systems
- Automotive applications

### Main features and benefits

- Compact dimensions due to flat rectangular helical winding
- High saturation currents of up to 101.5 A DC
- Qualified to AEC-Q200

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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 2020, TDK posted total sales of USD 12.5 billion and employed about 107,000 people worldwide.

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