

Inductors

Compact SMT current sense transformers

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TDK Corporation presents a new series of compact EPCOS SMT current sense transformers. They are designed for measuring currents of up to 7 A at frequencies between 50 kHz and 1 MHz. The B82801A1* series comprises nine types that offer transformation ratios from 1:20 to 1:150 between the primary and secondary winding. The maximum DC resistance of the primary winding for all types is only 2.5 mΩ. Excellent reproducibility and reliability are ensured by highly automated production using laser welding technology.

The compact design of the RoHS-compatible components is particularly noteworthy: The footprint is only 4.5 x 4.85 mm and the height is 3.5 mm. Thanks to the insulating coating of the ferrite cores, a particularly space-saving installation on tightly populated boards is possible. The test voltage of the windings is 500 V. Applications of the new current sense transformers include overload detection and detection of load shedding in switch mode power supplies.

Main applications

- Overload detection and detection of load shedding in switch mode power supplies

Main features and benefits

- Maximum measuring range of 7 A
- Compact dimensions of only 4.5 x 4.85 x 3.5 mm (L x W x H)

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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