Inductors

TDK offers extremely compact current-compensated ring core double chokes for very high frequencies

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TDK Corporation (TSE: 6762) presents a new series of very compact current-compensated EPCOS power line ring core double chokes for very high frequencies. The B82791H2*N010 series is available with current ratings from 1.5 A to 4 A at a nominal ambient temperature of +70 °C without derating, and for a nominal voltage of 250 V AC (50/60 Hz). Depending on the type, the inductance values are 14 µH to 100 µH. The utilized plastic material meets UL 94 V-0. To match significant requirements for specific applications such as drives, the plastic material fulfills the specifications for GWIT (+775 °C), GWFI (850 °C) and Ball Pressure (+125 °C). The design complies with EN 60938-2 (VDE 0565-2).

With dimensions of only 17.6 x 15.3 x 7.4 mm, these EMC components are extremely compact. Their very high resonance frequencies and increased saturation capability due to the special core material, and the complete omission of potting or any adhesives allow effective common-mode filtering at up to 300 MHz and beyond. Due to high stray inductance of up to 10 percent, these RoHS-compatible ring core chokes also effectively suppress the symmetrical interferences. The main application areas include compact switched power conversion applications, drives and post-design EMC tuning on semi-finished PCB.

Applications

- Suppression of common-mode interferences at very high frequencies
- LED driver circuits
- Switch-mode power applications

Main features

- Very compact design
- Suitable for post-design EMC tuning on finished PCB
- Very high resonance frequency and high saturation capability due to special core material and omission of potting
- Effective common-mode filtering up to 300 MHz
- Up to 10 percent stray inductance RoHS-compatible

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.

You can download this text and associated images from www.tdk-electronics.tdk.com/en/210527.

Further information on the products can be found under

www.tdk-electronics.tdk.com/en/power_chokes.

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