

Ferrites

Low losses at high frequencies

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TDK Corporation presents the new EPCOS N59 ferrite material, which is characterized by low losses at high frequencies. It was developed specifically for power supplies and frequency converters that operate with fast-switching power semiconductors on a GaN basis. The new material is optimized for a frequency range from 700 kHz to 2 MHz. Its maximum transmissible power is reached at a switching frequency of 2 MHz and an operating temperature of 100 °C. The ferrite material's Curie temperature is in excess of 280 °C.

The N59 ferrite material is particularly suitable for transformers based on ring core or planar topologies. The outstanding properties of this material will enable considerably more compact power supplies to be designed in future. At the same time, its efficiency is improved due to the low losses of the ferrite material, which is why the use of N59 contributes to significantly greater energy savings.

Main applications

- Transformers in power supplies and converters that operate with fast-switching power semiconductors on a GaN basis

Main features and benefits

- Low power dissipation in the frequency range from 700 kHz to 2 MHz; maximum transmissible power at 2 MHz

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 portfolio includes electronic components, modules and systems* marketed under the product brands TDK and EPCOS, power supplies, magnetic application products as well as energy devices, flash memory application devices, and others. TDK focuses on demanding markets in the areas of information and communication technology and consumer, automotive and industrial 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 2014, TDK posted total sales of USD 9.6 billion and employed about 83,000 people worldwide.

* The product portfolio includes ceramic, aluminum electrolytic and film capacitors, ferrites, inductors, high-frequency components such as surface acoustic wave (SAW) filter products and modules, piezo and protection components, and sensors.

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