

Transformers

TDK offers compact transformers for DC/DC converters

February 4, 2021

TDK Corporation (TSE: 6762) presents the EPCOS E10 EM series, a new range of insulated SMT transformers that are suitable for various DC/DC converter topologies and gate driver circuits in e-mobility and industrial electronics. There are four models in the series, with basic winding insulation of a working voltage of 500 V_{RMS} and reinforced insulation of 300 V_{RMS}. The turns ratio is between 1:0.76 and 4:1, depending on the model.

Measuring just 11.7 x 13.15 x 11.35 mm³, they are extremely compact. The compact design meets clearance and creepage requirements in accordance with the IEC 60664-1 standard (Np/Ns: min. 5.5 mm clearance, min. 6 mm creepage), due to the internal construction of the transformers. Outstanding reproducibility and reliability are ensured thanks to highly automated production with an AOI final inspection. The component in the new EPCOS transformer series B78307A*A003 is qualified in accordance with AEC-Q200 Rev. D.

Main fields of application

- DC/DC converters and gate driver circuits in e-mobility and industrial electronics

Main features and benefits

- Compact dimensions of just 11.7 x 13.15 x 11.35 mm³
- Compliance with the IEC 60664-1 standard with regard to clearance and creepage
- Qualified in accordance with AEC-Q200 Rev. D

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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You can find more information about the products at www.tdk-electronics.tdk.com/transformers_igbt_fet.

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