

EMC components

Common-mode filter with improved performance in a smaller package

- Current capability increased by 20 percent to 1.2 A
- Common-mode impedance improved by 25 percent to 1,000 Ω
- Package size reduced from IEC 4532 to IEC 3225

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TDK Corporation presents the new ACP3225 series of common-mode filter that offers improved performance in a smaller package when compared to existing products. Thus, the new wirewound common-mode filter features a current capability of 1.2 A and a common-mode impedance of 1,000 Ω . These values are 20 percent and 25 percent higher, respectively than those of the existing ACM4532 series.

With a form factor of IEC 3225 (3.2 x 2.5 x 2.3 mm³) the ACP3225 series offers a significantly smaller component for use in the power supply circuitry of increasingly compact electronic devices. Mass production was launched in April 2012.

Electronic devices are getting smaller and smaller while offering an increasing range of functions. Moreover, they tend to be used continuously for longer periods and often under high-load conditions with more noise. As a result, the EMC requirements for these applications are extremely high.

The main advantages of the new ACP3225 series were made possible by TDK's advanced materials and process technologies. Their cores make use of an especially low-loss ferrite material, and the automated high-precision winding process for the coil section enables the component's compact design.

Main applications

- Common-mode filter in the power supply circuits of compact electronic devices

Main features and benefits

- Current capability increased by 20 percent to 1.2 A
- Common-mode impedance improved by 25 percent to 1,000 Ω
- Package size reduced from IEC 4532 to IEC 3225 (3.2 x 2.5 x 2.3 mm³)

Key data

| Type | ACP3225-102-2P |
|-------------------------------------|------------------|
| Impedance at 100 MHz [Ω] | 1,000 \pm 25 % |
| DC resistance per line [Ω] | 0.10 (max.) |
| Rated current I_{DC} [A] | 1.2 |
| Rated voltage V_{DC} [V] | 60 |
| Insulation resistance [M Ω] | 10 (min.) |
| Dimensions [mm] | 3.2 x 2.5 x 2.3 |

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 current product line includes passive components, magnetic application products as well as energy devices, flash memory application devices, and others. TDK today 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 2011, TDK posted total sales of USD 10.6 billion and employed about 88,000 people worldwide.

About TDK-EPC Corporation

TDK-EPC Corporation, a TDK group company, is a leading manufacturer of electronic components, modules and systems, headquartered in Tokyo, Japan. TDK-EPC was founded in 2009 from the combination of the passive components business of TDK and the EPCOS Group. The portfolio includes ceramic, aluminum electrolytic and film capacitors, ferrites and inductors, magnets, high-frequency components such as surface acoustic wave (SAW) filter products and modules, piezo and protection components, and sensors. The company markets the product brands TDK and EPCOS.

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