



For Immediate Release

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TDK Develops Low-Profile, High-Performance Power Inductor

New Inductors Contribute to Smaller, Thinner, Higher-Performance Electronic Devices

CHICAGO, ILLINOIS, December 7, 2005 — TDK Corporation announced the development of the TFC3008 series of high-performance power inductors. With a thickness of just 0.8 mm (3.0 mm × 2.6 mm × 0.8 mm), these inductors are designed to respond to the market demands of smaller, thinner devices.

As cell phones, HDDs, and other electronic devices are becoming smaller and thinner, power supply components must also meet these new requirements. A significant hurdle in inductor development has become creating a thinner power inductor with the high performance that is required. The TFC series address this requirement.

Currently, the most common type of power inductors has a wire wound structure. TDK was among the first to introduce inductors just 1 mm thick with the launch of the VLF3010A series in 2003. The thin-film type is ideal for low-profile devices, but when high current flows through the inductor the inductance drops and heat is generated, making it impossible to secure adequate current. With existing semiconductor technology, it is difficult to form high-density and large cross sectional copper patterning.

TDK resolved this issue by combining original fine copper pattern formation technology^{*1} with ferrite micro-processing technology,^{*2} achieving, both, high current and compact, low-profile features. Sample shipments and mass production started in October.

2 – New TDK TFC Inductor Series – 2

Features of the inductor:

1. **Just 0.8 mm thick, difficult to achieve in a wire wound format.**
2. **Flat inductance-current characteristics at the industry's highest levels.**
3. **Twenty times higher reliability compared to wire wound inductors.**
4. **Dimensions are precise to ± 0.05 mm.**
5. **Lead-free.**

Characteristics

Identification	Inductance [μ H]	Ls \pm [%]	Rated I _{dc} [mA]	DC Resistance	
				[m Ω]	\pm [%]
TFC3008T-0R8N1R83	0.8	30	1830	80	15
TFC3008T-1R4N1R37	1.4		1370	150	
TFC3008T-2R2N1R07	2.2		1070	220	
TFC3008T-3R0N1R01	3.0		1010	280	
TFC3008T-4R4N0R58	4.4		580	280	

About TDK Corporation

TDK Corporation (NYSE: TDK) is a leading global electronics company based in Japan. It was established in 1935 to commercialize "ferrite," a key material in electronics and magnetics.

TDK's current product line includes ferrite materials, electronic components and ICs, wireless computer networking products, magnetic heads for HDD, digital recording hardware and advanced digital recording media. Net sales in FY2005 were US \$6.1 billion. For more information about TDK, please visit <http://www.tdk.com> or <http://www.tdk.co.jp>.

TDK Corporation of America is the North American sales and marketing division, which provides a wide range of support in electronic components including EMC components, inductors, and capacitors in the Americas. For additional information visit our web site at www.component.tdk.com.

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Glossary

*1) Fine copper pattern formation technology: Patterning technology that uses a plating technique to form a coil conductor with a large cross section and high density.

*2) Ferrite micro-processing technology: High-precision three-dimensional processing and laminating of ferrite wafers.