EMC components

High-current noise suppression filters for audio lines

- High rated current of up to 1.25 A and suited especially for external speakers
- Low-distortion ferrite material enables high audio quality
- Miniature IEC 1005 case size

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TDK Corporation (TSE:6762) has expanded the MAF1005G series of noise suppression filters for audio lines with four new MAF1005GAD-D types, which, thanks to their low DC resistance, feature a high rated current of up to 1.25 A. The new types employ TDK's proprietary low-distortion ferrite that enables the new components to suppress noise at cellular frequencies from 600 MHz to 2.7 GHz and ensure high audio quality. Thanks to their high rated current, the new components are suitable especially for the audio lines for external speakers of smartphones and other compact communication devices as well as for headphones and microphones.

Available in case size IEC 1005, the new noise suppression filters have miniaturized dimensions of just 1.0 mm x 0.5 mm x 0.5 mm and feature a performance approaching that of the much larger MAF1608G series in IEC 1608. Mass production of the components starts in September 2018.

With this series extension, TDK now offers a broad lineup of noise suppression filters for cellular band frequencies, Class D amplifiers (100 MHz to 400 MHz) and FM band frequencies (66 MHz to 108 MHz). TDK will continue to expand its portfolio for more target band frequencies and further miniaturization.

Main applications

- Audio lines especially for external speakers of smartphones, tablets and other compact communication devices as well as for headphones and microphones

Main features and benefits

- Low DC resistance design for a high rated current of up to 1.25 A
- Low-distortion ferrite material enables high audio quality
- Miniature dimensions of 1.0 mm x 0.5 mm x 0.5 mm

Key data

Type	Impedance at 900 MHz [Ω]	DC resistance [Ω]	Max. rated current [A]
MAF1005GAD251D	250	0.110	1.25
MAF1005GAD401D	400	0.160	1.0
MAF1005GAD571D	570	0.200	0.9
MAF1005GAD701D	700	0.270	0.8

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 comprehensive 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 the areas of information and communication technology and automotive, industrial and consumer 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 2018, TDK posted total sales of USD 12 billion and employed about 103,000 people worldwide.

You can download this text and associated images from www.global.tdk.com/corp/en/news_center/press/20180904_01.htm.

Further information on the products can be found under product.tdk.com/info/en/catalog/datasheets/suppression-filter_commercial_maf1005g_en.pdf.

Contacts for regional media

Region	Contact		Phone	Mail
Japan	Mr. Yoichi OSUGA	TDK Corporation Tokyo, Japan	+813 6852-7102	pr@jp.tdk.com
ASEAN	Ms. Jiang MAN Ms. Pei Lu LEE	TDK Singapore (Pte) Ltd. Singapore	+65 6273 5022	asean.inquiry@sg.tdk.com
Greater China	Ms. Clover XU	TDK China Co., Ltd. Shanghai, China	+86 21 61962319	pr@cn.tdk.com
Europe	Mr. Frank TRAMPNAU	TDK Europe GmbH Duesseldorf, Germany	+49 211 9077 127	frank.trampnau@eu.tdk.com
America	Ms. Sara M. LAMBETH	TDK Corporation of America Irving, TX, USA	+1 972-409-4519	sara.lambeth@us.tdk.com