

## Temperature sensors

### Lineup of high-precision IEC 0402 SMD NTC thermistors expanded

- New 10-kΩ type features a narrow tolerance of ±1 percent
- Optimally suited for temperature measurement and compensation in communication modules, mobile devices, and wearable devices

March 31, 2015

TDK Corporation has expanded its NTCG04 lineup of IEC 0402 case size (EIA 01005) SMD NTC thermistors with a new type featuring a nominal resistance of 10 kΩ and a narrow tolerance of just ±1 percent. The new component complements the existing 100-kΩ type in 0402. With its miniature dimensions of just 0.4 mm x 0.2 mm x 0.2 mm, the NTCG04 lineup is optimally suited for temperature measurement and compensation of microcontrollers and displays in communication modules, mobile devices, and wearable devices.

The characteristics of the 0402 types are equivalent to those of the 0603 (EIA 0201) case size products, thus supporting the design of even smaller communication modules and increasing the mounting density in mobile devices. Achieving these ratings in a 0402 component was made possible by further optimizing both the source materials and the manufacturing process.

Mass production of the new NTCG04 type is scheduled to begin in July 2015. In future, the lineup of 0402 SMD NTC thermistors will be expanded with further nominal resistance values.

-----

#### Main applications

- Camera modules, LED modules, Wi-Fi and other communication modules
- Mobile devices such as smartphones, tablets, headphones and microphones
- Wearable devices

#### Main features and benefits

- Miniaturized IEC 0402 case size (EIA 01005)
- Nominal resistance of 10 kΩ and narrow tolerance of ±1 percent

#### Key data

Type	Case size [IEC]	Dimensions [mm]	Nominal resistance R25 [kΩ]	Tolerance [%]	B value [K]
NTCG043*	0402 (EIA 01005)	0.4 x 0.2 x 0.2	10	±1	3435 (25/85°C)
NTCG044*			100		4250 (25/85°C)

-----

## 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.

-----

You can download this text and associated images from [www.global.tdk.com/news\\_center/press/201503311749.htm](http://www.global.tdk.com/news_center/press/201503311749.htm).

-----

## Contacts for regional media

Region	Contact		Phone	Mail
Japan	Ms. Yoichi OSUGA	TDK Corporation Tokyo, Japan	+813 6852-7102	<a href="mailto:pr@jp.tdk.com">pr@jp.tdk.com</a>
ASEAN	Ms. Jiang MAN Mr. Shota KANZAKI	TDK Singapore (Pte) Ltd. Singapore	+65 6273 5022	<a href="mailto:asean.inquiry@sg.tdk.com">asean.inquiry@sg.tdk.com</a>
Greater China	Ms. Clover XU	TDK China Co., Ltd. Shanghai, China	+86 21 61962307	<a href="mailto:pr@cn.tdk.com">pr@cn.tdk.com</a>
Europe	Mr. Frank TRAMPNAU	TDK Europe GmbH Duesseldorf, Germany	+49 211 9077 127	<a href="mailto:frank.trampnau@eu.tdk.com">frank.trampnau@eu.tdk.com</a>
America	Ms. Sara M. LAMBETH	TDK Corporation of America Irving, TX, USA	+1 972-409-4519	<a href="mailto:sara.lambeth@us.tdk.com">sara.lambeth@us.tdk.com</a>