



Toshiba announces new 8-channel high- and low-side switches for driving loads in industrial applications

New devices boost efficiency, reduce size and extend operating temperature

Düsseldorf, Germany, 07th February 2023 – Toshiba Electronics Europe GmbH (“Toshiba”) has launched two intelligent power products to control the driving of resistive and inductive loads including motors, solenoids, and lamps in applications such as programmable logic controllers within industrial equipment.

The new power switch products both comprise 8 channels and are a high-side (TPD2015FN) and low-side (TPD2017FN) switches. Both devices benefit from Toshiba’s latest analog device process (BiCD) that combines bipolar, CMOS, and DMOS technologies.

Both of the products are housed in the small 0.65mm pitch SSOP30 package that measures just 9.7 × 7.6 × 1.2mm. This offers a reduction of around 29% in mounting area and 20% in height over the SSOP24 package (13.0 × 8.0 × 1.5mm) that is used for current products such as the TPD2005F and TPD2007F, thereby reducing the size of designs.

With regard to the electrical performance, the on-resistance ($R_{DS(ON)}$) of both devices is 0.4Ω – more than 50% less than that of Toshiba’s current products, significantly

enhancing operating efficiency and enhancing thermal performance. The rugged power switches are able to operate at temperatures (T_{opr}) from -40°C to $+110^{\circ}\text{C}$ with a junction temperature (T_j) as high as $+150^{\circ}\text{C}$, ensuring their suitability for challenging industrial environments.

In addition, both products have built-in over current protection circuits and over temperature protection circuits, thereby ensuring the reliability of equipment they are used in.

The new devices begin shipping today. To access the datasheets for these two devices, please visit:

TPD2015FN <https://toshiba.semicon-storage.com/eu/semiconductor/product/intelligent-power-ics/detail.TPD2015FN.html>

TPD2017FN <https://toshiba.semicon-storage.com/eu/semiconductor/product/intelligent-power-ics/detail.TPD2017FN.html>

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About Toshiba Electronics Europe

[Toshiba Electronics Europe GmbH](#) (TEE) is the European electronic components business of [Toshiba Electronic Devices and Storage Corporation](#). TEE offers European consumers and businesses a wide variety of innovative hard disk drive (HDD) products plus semiconductor solutions for automotive, industrial, IoT, motion control, telecoms, networking, consumer and white goods applications. Next to HDDs, the company's broad portfolio encompasses power semiconductors and other discrete devices ranging from diodes to logic ICs, optical semiconductors as well as microcontrollers and application specific standard products (ASSPs) amongst others.

TEE has headquarters in Düsseldorf, Germany, with branch offices in France, Italy, Spain, Sweden and the United Kingdom providing marketing, sales and logistics services. The company president is Mr. Tomoaki Kumagai.

For more company information visit TEE's web site at www.toshiba.semicon-storage.com.

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