



Toshiba further expands super junction MOSFET range with four additional 650V devices

Improved performance and reduced losses will enhance power supply efficiency

Düsseldorf, Germany, 05th April 2022 – Toshiba Electronics Europe GmbH (“Toshiba”) has added a further four N-channel super junction 650 V power MOSFET devices to extend their DTMOSVI series. The new devices build upon the market success of the current devices and will primarily be used in applications like Industrial and lighting power supply and other applications where ultimate efficiency at small form factor is a requirement.

The new TK090E65Z, TK110E65Z, TK155E65Z, and TK190E65Z MOSFETs achieve a 40% reduction in the drain-source on-resistance ($R_{DS(on)}$) x gate-drain charge (Q_{gd}) figure of merit (FoM) when compared to the previous DTMOS generation. This will translate into a substantial decrease in switching losses over earlier devices. As a result, designs incorporating the new devices will see an increase in efficiency. The performance enhancement will apply to new designs as well as upgrades of existing designs.

All four of the new devices offer a drain-source voltage (V_{DSS}) of 650 V with a drain current (I_D) capability up to 30 A. Drain-source on-resistance ($R_{DS(on)}$) is as low as 0.09Ω and the gate-drain charge (Q_{gd}) can be as low as 7.1 nC, allowing low-loss operation at high speeds. All devices are packaged in industry-standard TO-220 through-hole packages.

Toshiba will continue to expand its product lineup to meet market trends and help improve the efficiency of power supplies.

For further information, please visit: <https://toshiba.semicon-storage.com/ap-en/semiconductor/product/mosfets/400v-900v-mosfets/articles/state-of-the-art-super-junction-mosfet-dtmos6.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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