



Toshiba announce next-generation superjunction power MOSFETs

New devices increase power supply efficiency even further

Düsseldorf, Germany, 21st August 2018 – Toshiba Electronics Europe (“Toshiba”) has launched a new series of next-generation 650V power MOSFETs that are intended for use in server power supplies in data centers, solar (PV) power conditioners, uninterruptible power systems (UPS) and other industrial applications.

The first device in the DTMOS VI series is the TK040N65Z, a 650V device that supports continuous drain currents (I_D) up to 57A and 228A when pulsed (I_{DP}). The new device offers an ultra-low drain-source on-resistance $R_{DS(ON)}$ of 0.04 Ω (0.033 Ω typ.) which reduces losses in power applications. The enhancement mode device is ideal for use in modern high-speed power supplies, due to the reduced capacitance in the design.

Power supply efficiency is improved as a result of reductions in the key performance index / figure-of-merit (FoM) – $R_{DS(ON)} \times Q_{gd}$. The TK040N65Z shows a 40% improvement in this important metric over the previous DTMOS IV-H device, which represents a significant gain in power supply efficiency in the region of 0.36% - as measured in a 2.5kW PFC circuit.

The new device is housed in an industry-standard TO-247 package, ensuring compatibility with legacy designs as well as suitability for new projects.

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

The new device enters mass production today and shipments begin immediately.

For access the devices specification and datasheet [click here](#)

Follow the link below for further information about the Toshiba 400-900V MOSFET offering:
link: <https://toshiba.semicon-storage.com/eu/product/mosfet/hv-mosfet.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. The company's broad portfolio encompasses integrated wireless ICs, power semiconductors, microcontrollers, optical semiconductors, ASICs, ASSPs and discrete devices ranging from diodes to logic ICs.

TEE has headquarters in Düsseldorf, Germany, with branch offices in France, Italy, Spain, Sweden and the United Kingdom providing design, manufacturing, marketing and sales. Company president is Mr. Tomoaki Kumagai

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

Contact details for publication:

Toshiba Electronics Europe GmbH, Hansaallee 181, D-40549 Düsseldorf, Germany

Tel: +49 (0) 211 5296 0 Fax: +49 (0) 211 5296 79197

Web: www.toshiba.semicon-storage.com/eu/company/news.html

E-mail: discrete-ic@toshiba-components.com

Contact details for editorial enquiries:

Michelle Shrimpton, Toshiba Electronics Europe GmbH

Tel: +44 (0)193 282 2832

E-mail: MShrimpton@teu.toshiba.de

Issued by:

Birgit Schöniger, Publitek

Tel: +44 (0) 20 8429 6554

Web: www.publitek.com

E-mail: birgit.schoeniger@publitek.com

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