



Toshiba Expands Line-up of Latest Generation Trench MOSFETs with Ultra-Compact 40V Device for Low EMI Designs

N-channel U-MOS-IX-H MOSFET with integrated SRD is ideal for power supplies and motor drives

Düsseldorf, Germany, 14 November 2017 – Toshiba Electronics Europe has expanded its line-up of MOSFETs based on its latest generation U-MOS-IX-H trench semiconductor process with a new, ultra-compact 40V device featuring an integrated soft recovery diode (SRD).

Thanks to the integrated SRD, the TPH1R204PB is able to keep the spike voltages generated between the drain and source during switching very low. This makes the MOSFET suitable for synchronous rectification in the secondary side of switching power supplies that require low EMI. Target applications include high-efficiency AC-DC and DC-DC converters as well as motor drives, for example in cordless tools.

The TPH1R204PB is an N-channel device with a maximum on resistance ($R_{DS(ON)}$) of only 1.2m Ω (@ $V_{GS} = 10V$). Rated output charge (Q_{OSS}) is just 56nC. The device is supplied in a SOP advance package measuring just 5mm x 6mm x 0.95mm.

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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.

Formed in 1973 in Neuss, Germany, TEE has headquarters in Düsseldorf, Germany, with branch offices in Germany, France, Italy, Spain, Sweden and the United Kingdom providing design, manufacturing, marketing and sales. Company president is Mr. Akira Morinaga.

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November 2017

Ref. 7080/A