Düsseldorf, Germany, 22nd March, 2016 – Toshiba Electronics Europe has announced a new range of ultra-efficient, high-speed, high-voltage MOSFETs for switching voltage regulator designs. Available with 800V and 900V ratings, the four N-channel devices have typical on resistance (R_{DS(ON)}) ratings down to just 1.9Ω. Target applications are flyback converters in LED lighting, supplementary power supplies and other circuits requiring current switching below 5A.

The new enhancement mode MOSFETs are based on Toshiba’s π-MOS VIII (Pi-MOS-8) eighth generation planar semiconductor process, which combines high levels of cell integration with optimized cell design. This technology supports reduced gate charge and capacitance without losing the benefits of low R_{DS(ON)}.

These MOSFETs represent low-current supplements to Toshiba’s existing DTMOS IV line-up of 800V super junction DTMOS4 devices. The 2.5A TK3A90E and 4.5A TK5A90E feature V_{DSS} ratings of 900V and have respective typical R_{DS(ON)} ratings of 3.7Ω and 2.5Ω. Both the
4.0A TK4A80E and 5.0A TK5A80E devices offer $V_{DSS}$ ratings of 800V with respective typical $R_{DS(ON)}$ ratings of 2.8Ω and 1.9Ω.

Toshiba’s new MOSFETs offer an ultra-low maximum leakage current of only 10μA ($V_{DS} = 60V$) and a gate threshold voltage range of 2.5V to 4.0V (when $V_{DS}$ is 10V and drain current is 0.4mA). All of the devices are supplied in a standard TO-220SIS form factor.

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About Toshiba Electronics Europe

Toshiba Electronics Europe (TEE) is the European electronic components business of Toshiba Corporation, which is ranked among the world’s largest semiconductor vendors. TEE offers one of the industry's broadest IC and discrete product lines including high-end memory, microcontrollers, ASICs and ASSPs for automotive, multimedia, industrial, telecoms and networking applications. The company also has a wide range of power semiconductor solutions as well as storage products including HDDs, SSDs, SD Cards and USB sticks.

TEE was formed in 1973 in Neuss, Germany, providing design, manufacturing, marketing and sales and now has headquarters in Düsseldorf, Germany, with branch offices in France, Italy, Spain, Sweden and the United Kingdom. TEE employs approximately 300 people in Europe. Company president is Mr. Takashi Nagasawa.

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

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