



Toshiba announces a new dual output IGBT / MOSFET driver

Enhanced device includes comprehensive fault detection to simplify circuit design

Düsseldorf, Germany, 19th March 2020 – Toshiba Electronics Europe GmbH has today announced a new IGBT/MOSFET gate driver equipped with additional built-in functionality. The new TLP5231 will simplify the design task in a wide range of applications including industrial inverters, uninterruptible power supplies (UPS), power conditioners for solar energy and motor controls.

The TLP5231 pre-driver has a pair of outputs that are designed to drive external p-channel and n-channel MOSFETs used for current buffers. This allows the usage of a wide range of MOSFETs with various current ratings, meaning that the IGBT can be controlled by a rail to rail gate voltage. The driver can source and sink peak currents up to 2.5 A and is rated for 1.0 A continuously.

The device incorporates overcurrent detection, implemented by sensing $V_{CE(sat)}$ as well as undervoltage lock out (UVLO), both of which provide an open collector fault signal to the primary side. These features are not available on existing products (such as the TLP5214 & TLP5214A) and their inclusion on the TLP5231 significantly eases the process of gate drive circuit design.

Additionally, the "gate voltage soft turn off time" after $V_{CE(sat)}$ overcurrent detection can be controlled by another external n-channel MOSFET. Propagation delays (L/H & H/L) are as low as 100ns.

Despite being housed in a tiny SO16L surface mount package, the TLP5231 offers an isolation voltage (BVs) of 5000 Vrms (min.) with an internal isolation thickness in excess of 0.4 mm. Creepage and clearance distances are at least 8.0 mm, making it suitable for safety-critical applications.

Shipments of the new device start today.

Follow the link below for more information on Toshiba's driver line-up.

<https://toshiba.semicon-storage.com/eu/semiconductor/product/optoelectronics/detail.TLP5231.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](#) (Toshiba). 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, 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.

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