News Release

TOSHIBA

7th-9th May, PCIM 2019, Hall 9, Booth 301

Toshiba announces significant presence at PCIM Europe 2019

Toshiba will showcase multiple technologies for automotive, power and motor drive applications

Düsseldorf, Germany, 23rd April 2019 – Toshiba Electronics Europe GmbH will be exhibiting at the PCIM Europe from 7th to 9th May, where the latest innovations in semiconductor and optoelectronic technologies will be showcased that can improve efficiency and thermal performance as well as increasing system reliability. Solutions supporting automotive, power and motor drive applications are demonstrated in hall 9 at the Toshiba booth 301.

One of the highlights will be Toshiba's MOSFET technology DTMOS VI, that demonstrates Toshiba continued progress in developing market-leading semiconductor technologies for ultra-efficient power applications. The latest version focusses on the key figure-of-merit (FoM) based around the on-resistance and gate charge (Q_{GD} * $R_{(ON)}$), thereby reducing static and switching losses. In fact Toshiba's DTMOS VI offers the best-in-class FoM.

DTMOS VI devices offer the highest efficiencies in power switching applications and are available in standard TO-247 and TO-220F packages. A new SMD package in TO-leadless (TOLL) format – including the option of a Kelvin source will be introduced in the future.

Automotive is now a key sector for power semiconductors as these devices appear in powertrains, safety systems, comfort features and vehicle lighting. Low-loss solutions are critical in these applications to improve economy and reduce emissions in conventional vehicles and extend range in EVs and HEVs. Toshiba's automotive MOSFET technologies use an innovative copper clip to replace thin aluminium wire bonds, improving the current carrying capability. These clips also reduce losses, improving efficiency as well as improving thermal performance – both essential in modern automotive applications.

Toshiba solutions shown at the booth will also help designers increase system reliability and reduce size and weight. Mechanical relays experience significant wear and tear during their lifetime and are increasingly being replaced by Photorelays that have no wear mechanism and produce greater reliability in a small package.

The extremely small VSON series is one of the smallest packages currently available. Based on Toshiba's unique chip-on-chip (COC) technology, these devices measure just 2mm x 1.45mm, offering a significant volume reduction when compared to a typical mechanical relay. They are suited to rugged applications, with an operating temperature up to 110°C.

In our highly automated world, motors are growing in popularity, whether it is in appliances such as air conditioning or refrigerators, or peripherals such as printers and photocopiers. They are also used to replace mechanical pumps in automotive applications as well as cooling fans and new applications such as remotely-controlled surveillance cameras.

Toshiba will introduce its extensive range of industrial and automotive microcontroller units (MCUs), motor control drivers (MCDs) and intelligent power devices (IPDs) that are suitable for brushed, brushless and stepping motors. Using their unique motor drive technology, including an integrated vector engine, these devices provide highly efficient and precise motor control across an incredibly wide range of applications.

Also on show will be Toshiba's Advanced Synchronous Reverse Blocking (A-SRB™), a unique and patented circuit technology that dramatically reduces switching losses in bridge circuits such as those found in inverters, DC/DC converters and PFC – without needing the expense of wide bandgap devices.

The PCIM Europe exhibition is in Nuremberg, Germany from 7th to 9th May and Toshiba's booth can be found in Hall 9, booth 301.

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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 (TDSC) 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.

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