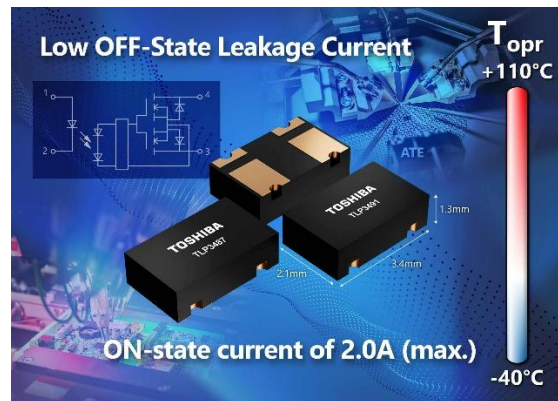




Toshiba introduces compact photorelays for accurate switching in semiconductor test systems

Combine high current and low leakage to enable precise measurement and efficient switching of both signal and power paths, simplifying design

Düsseldorf, Germany, 30th July 2026 – Toshiba Electronics Europe GmbH (“Toshiba”) introduces two photorelays, the [TLP3487](#) and [TLP3491](#), designed for semiconductor test equipment. Housed in a compact P-SON4 package, the devices support a high ON-state current with low OFF-state leakage current to help maintain measurement accuracy. Typical applications include automated test equipment (ATE), measuring instruments, and high-speed logic IC, memory and SoC testers, as well as peripheral equipment used in semiconductor test environments.

Semiconductor test systems apply voltages and currents to each pin of the device under test (DUT) to verify proper operation. To do this, both power and signal paths for each pin must be switched reliably. Photorelays, solid-state relays with MOSFET outputs, are widely used for this purpose. However, the relay’s OFF-state leakage current can affect measurement results, making it important to keep it as low as possible. At the same time, functions such as power supply and load control require the ability to handle higher currents. This creates a need for switching devices that support these requirements.

The TLP3491 and TLP3487 both achieve a high ON-state current of 2.0A (max.) and a low OFF-state leakage current of 1nA at 40V and 10nA at 60V respectively, through an optimised design of the MOSFET output section. This level of performance was challenging to achieve with Toshiba’s existing TLP3481 products housed in the same P-SON4 package.

For applications requiring higher current, multiple devices have often been used in combination, increasing both mounting area and overall off-state leakage current. The TLP3491 and TLP3487 can instead be used as a single device, helping to reduce component count and save board space. In addition, their compact P-SON4 package (3.4mm × 2.1mm × 1.3mm) enables a smaller mounting footprint, which is approximately

74% less than comparable 2.54SOP4 photorelays and around 84% less than 2.54SOP6 packaged devices. The operating temperature range is -40°C to +110°C.

Toshiba will continue to pursue further reductions in OFF-state leakage current, support for higher current, and miniaturisation of photorelays, expanding its product lineup to meet the needs for higher precision and higher density in semiconductor testers.

Follow the links below for more information on the new TLP3491 and TLP3487:

<https://toshiba.semicon-storage.com/eu/semiconductor/product/isolators-solid-state-relays/photorelay-mosfet-output/detail.TLP3487.html>

<https://toshiba.semicon-storage.com/eu/semiconductor/product/isolators-solid-state-relays/photorelay-mosfet-output/detail.TLP3491.html>

Follow the link below for more on Toshiba's isolators and solid-state relays:

[Isolators/Solid State Relays](#)

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About Toshiba Electronics Europe

[Toshiba Electronics Europe GmbH](#) (TEE) offers European consumers and businesses a wide variety of hard disk drive (HDD) products plus semiconductor solutions for automotive, industrial, IoT, motion control, telecoms, networking, consumer and white goods applications. Next to HDDs, the company's broad portfolio encompasses power semiconductors and other discrete devices ranging from diodes to logic ICs, optical semiconductors as well as microcontrollers and application specific standard products (ASSPs) amongst others. In addition, TEE offers SCiB™ battery cells and modules with lithium titanium oxide (LTO) for heavy-duty applications.

TEE has its headquarters in Düsseldorf, Germany, with branch offices in France, Italy, Spain, Sweden and the United Kingdom providing marketing, sales and logistics services.

Visit Toshiba's websites at www.toshiba.semicon-storage.com and www.scib.jp/en for further company and product information.

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July 2026

Ref. 7686(A)E