



Toshiba launches a small photorelay for high-frequency signal switching

New device reduces insertion loss and enhances high-frequency signal transmission

Düsseldorf, Germany, 17th October 2023 – Toshiba Electronics Europe GmbH (“Toshiba”) has launched a new photorelay specifically engineered to reduce insertion loss and suppress power attenuation of high frequency signals. The new device is intended for use in semiconductor testing applications including high-speed memory testers, high-speed logic testers or probe cards.

Through optimized package design, the new TLP3475W has reduced parasitic capacitance and inductance, thereby reducing insertion loss of signals in the frequency range 20GHz (typ.). This represents a 1.5x improvement in performance over the existing TLP3475S device.

The current (I_{FT}) required to drive the LED is <3.0mA and on-state resistance (R_{ON}) is typically 1.1 Ω . The isolation voltage (BV_s) exceeds 300Vrms and output capacitance (C_{OFF}) is less than 20pF, contributing to switching times in the region of 2ms. It offers a normally open (NO) / 1-Form-A function.

The new TLP3475W is housed in a WSON4 package measuring just 1.45mm x 2.0mm x 0.8 mm (typ.), making it one of the smallest photorelays currently available. This is 40% smaller than Toshiba's ultra-compact S-VSON4T package and is of particular value in multi-channel designs where multiple devices are deployed on a single card.

Operating temperature range is -40°C to +110°C, making it suitable for industrial applications, including high-speed semiconductor testing.

Learn more about TLP3475W here: <https://toshiba.semicon-storage.com/eu/semiconductor/product/isolators-solid-state-relays/photorelay-mosfet-output/detail.TLP3475W.html>

Volume shipments of the new photorelay start today.

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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 also offers Toshiba's SCiB™ battery cells and modules with lithium titanium oxide (LTO) for heavy-duty applications and Silicon Nitride (SiN) ceramic substrates used in power semiconductor modules, inverters and converters for their heat dissipation characteristics and strength.

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, www.scib.jp/en and www.toshiba-tmat.co.jp/en/ for further company and product information.

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