

New line of SDIP6 photocouplers: ICs contribute to smaller footprints, reduced costs

November 29 2012

Toshiba America Electronic Components has announced the addition of the TLP700A and TLP705A to its family of photocouplers. The new photocouplers from Toshiba are housed in small packages (SDIP6) – half the size of conventional 8 pin DIP packages, and consist of a GaAIAs infrared light-emitting diode (LED) optically coupled to an integrated high-gain, high-speed photodetector IC chip.

Toshiba's TLP700A can directly drive a middle-capacity IGBT or power MOSFET. With a guaranteed transmission delay skew, ideal for designing dead time for inverters, this product achieves a shorter transmission delay time - approximately one half that of the existing model. With improved peak output current and operating ambient temperature, the TLP700A is suitable for use in high temperature environments. In addition, it complies with the reinforced insulation class of the international safety standards. The TLP700A can be used in a wide range of products, including industrial devices, digital [home appliances](#), measurement devices, and control devices. Its small packaging can contribute to a smaller footprint and cost reduction.

The TLP705A can directly drive a small-capacity IGBT and power MOSFET. Using a new LED with excellent [longevity](#), the TLP705A has better output current, variation in transmission delay time, and transmission delay skew characteristics than those of the existing model. Toshiba's new IC complies with the reinforced insulation class of the

international safety standards, and can be used in a wide range of products - including industrial devices, digital home appliances, measurement and control devices.

According to Joseph Tso, business development manager for Toshiba's optoelectronics discrete [business unit](#), "Toshiba's new photocouplers provide a smaller footprint solution for applications that require safety standard certifications, while also contributing to cost reductions ."

Features include:

- Transmission delay time : $t_{pLH}, t_{pHL} = 200\text{ns}$ (Max)
- Transmission delay skew : $t_{psk} = 80\text{-}85\text{ns}$ (Max)
- Wide guaranteed operating temperature range
- Low threshold input current : $I_{FLH} = 5\text{-}7.5\text{mA}$ (Max)
- Withstand voltage : $BV_s = 5000V_{rms}$

The Toshiba TLP700A and TLP705A are available now. For datasheets, samples and pricing, please contact your Toshiba representative.

Provided by Toshiba

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