

## Lineup of SO6L(LF4) package IC output photocoupler is expanded

The six new products, including TLP2710(LF4), which expand our lineup of SO6L(LF4) package products are wide-lead spacing<sup>[1]</sup> options of our SO6L package IC output photocouplers.

The eight existing SO6L(LF4) products in the lineup comprise three for high speed communication and five for driving IGBT/MOSFETs. The six new products are newly available in the lineup comprise an additional three for high speed communication and three for driving IGBT/MOSFETs. The new package replaces our SDIP6(F type), and they are compatible in mounting.

In addition, the maximum mounting height is 2.3 mm, making the new package about 45 % lower height than the SDIP6(F type). These products can therefore be used where height is limited, such as on the back side of circuit boards, contributing to smaller equipment.



### Features

- Lineup of SO6L(LF4) package is expanded
- Thin package: height 2.3 mm (max)  
[Comparison with SDIP6(F type), height can be lower to about 45 %, and it is compatibility in mounting]
- High operating temperature rating

### Applications

- |  |                                     |
|--|-------------------------------------|
| High-speed communications                              | IGBT/MOSFET drivers                 |
| • Factory networking                                   | • Industrial inverters              |
| • Digital interfacing                                  | • Air conditioner inverters         |
| • I/O interface boards                                 | • Inverters for photovoltaics, etc. |
| • Programmable logic controllers                       |                                     |
| • Intelligent power module drive <sup>[2]</sup> , etc. |                                     |



Interface



Photovoltaics

### Product Specifications

(Unless otherwise specified, @T<sub>a</sub>=T<sub>opr</sub>)

Part number	Applications	Package		Absolute maximum ratings		Supply current I <sub>CCH</sub> , I <sub>CCL</sub> max (mA)	Threshold input current (L→H) I <sub>FLH</sub> max (mA)	Propagation delay time t <sub>pLH</sub> , t <sub>pHL</sub> max (ns)	Common-mode transient immunity CM <sub>H</sub> , CM <sub>L</sub> min @T <sub>a</sub> =25 °C (kV/μs)	Isolation voltage BV <sub>s</sub> min @T <sub>a</sub> =25 °C (Vrms)
		Name	Height max (mm)	Operating temperature T <sub>opr</sub> (°C)	Peak output current I <sub>OPH</sub> , I <sub>OPL</sub> (A)					
TLP2710(LF4)	For high-speed communications	SO6L (LF4)	2.3	-40 to 125	-	0.3 <sup>[3]</sup>	1.0	250	±25	5000
TLP2745(LF4)				-40 to 110	-	3	1.6	120	±30	5000
TLP2748(LF4)				-40 to 110	-	3	1.6 <sup>[4]</sup>	120	±30	5000
TLP5771(LF4)	For IGBTs/MOSFETs drive			-40 to 110	±1.0	3	2	150	±35	5000
TLP5772(LF4)				-40 to 110	±2.5	3	2	150	±35	5000
TLP5774(LF4)				-40 to 110	±4.0	3	2	150	±35	5000

Notes:

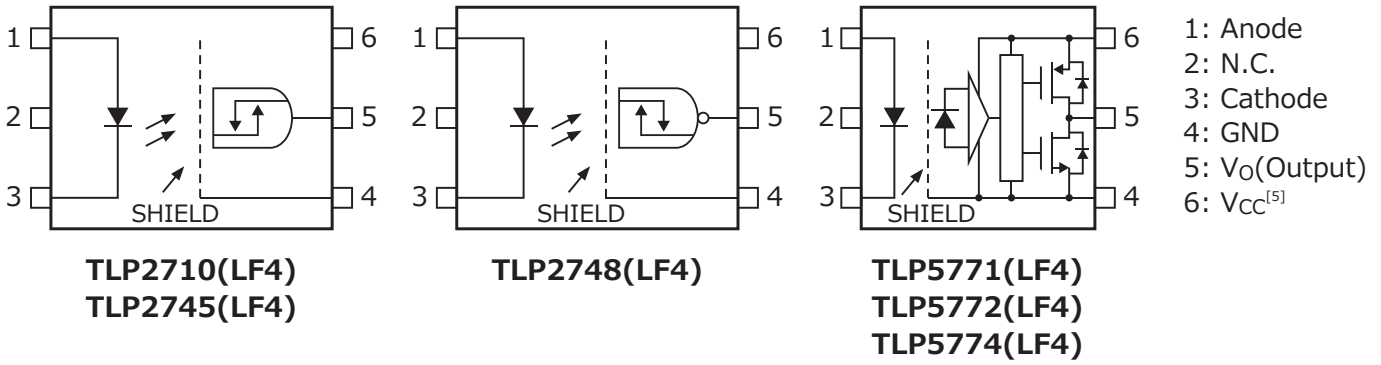
[1] Wider lead bend package than standard package

[2] TLP2710(LF4), TLP2745(LF4), TLP2748(LF4)

[3] I<sub>DDH</sub>, I<sub>DDL</sub>

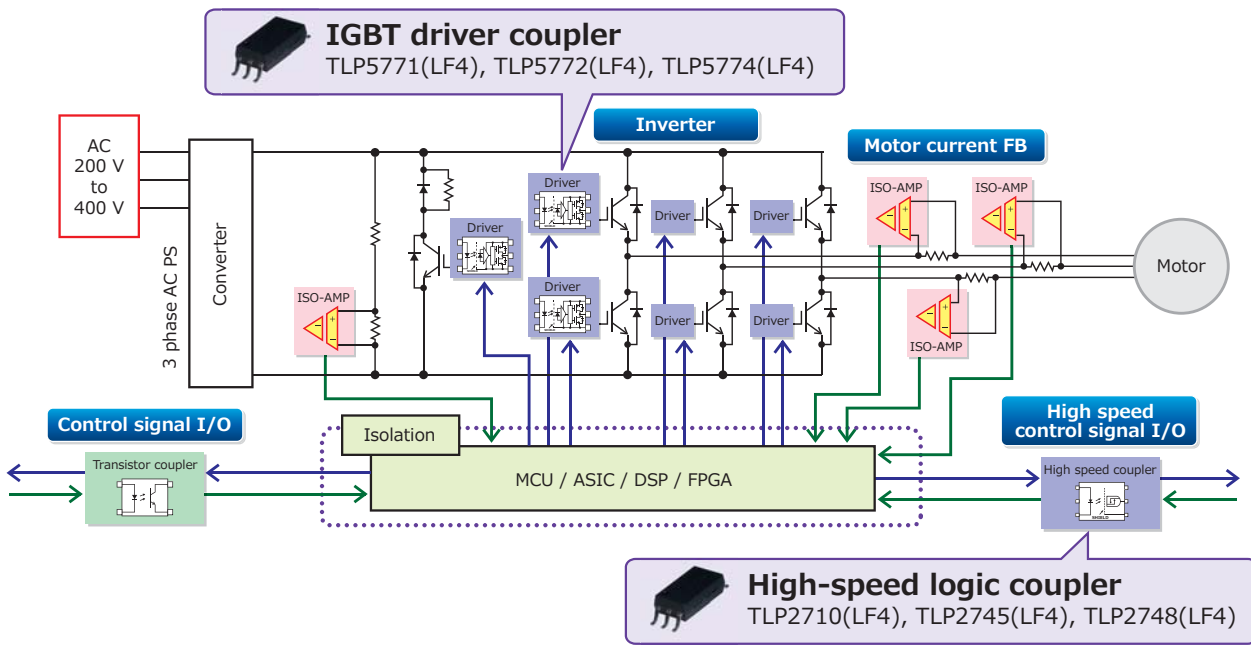
[4] I<sub>FHL</sub>

# Internal Circuit



Notes:  
[5] V<sub>DD</sub> for TLP2710(LF4)

# Application Circuit Example



## Inverters

The application circuits shown in this document are provided for reference purposes only. Thorough evaluation is required, especially at the mass-production design stage. Toshiba Electronic Devices & Storage Corporation does not grant any license to any industrial property rights by providing these examples of application circuits.

Before creating and producing designs and using, customers must also refer to and comply with the latest versions of all relevant information of this document and the instructions for the application that Product will be used with or for.