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\(^{(1)}\) 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
  - Factory networking
  - Digital interfacing
  - I/O interface boards
  - Programmable logic controllers
  - Intelligent power module drive\(^{(2)}\), etc.

- IGBT/MOSFET drivers
  - Industrial inverters
  - Air conditioner inverters
  - Inverters for photovoltaics, etc.

**Product Specifications**

(Unless otherwise specified, \(\text{Ta}=\text{Topr}\))

<table>
<thead>
<tr>
<th>Part number</th>
<th>Applications</th>
<th>Package</th>
<th>Absolute maximum ratings</th>
<th>Supply current</th>
<th>Threshold input current</th>
<th>Propagation delay time</th>
<th>Common-mode transient immunity</th>
<th>Isolation voltage BVs</th>
</tr>
</thead>
<tbody>
<tr>
<td>TLP2710(LF4)</td>
<td>For high-speed communications</td>
<td>SO6L(LF4) 2.3</td>
<td>-40 to 125°C</td>
<td>0.3(^{(3)})</td>
<td>3</td>
<td>1.0</td>
<td>250</td>
<td>±25</td>
</tr>
<tr>
<td>TLP2745(LF4)</td>
<td>-40 to 110°C</td>
<td>3</td>
<td>1.6</td>
<td>120</td>
<td>±30</td>
<td>5000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TLP2748(LF4)</td>
<td>-40 to 110°C</td>
<td>±1.0</td>
<td>3</td>
<td>1.6(^{(4)})</td>
<td>120</td>
<td>±30</td>
<td>5000</td>
<td></td>
</tr>
<tr>
<td>TLP5771(LF4)</td>
<td>-40 to 110°C</td>
<td>±2.5</td>
<td>3</td>
<td>2</td>
<td>150</td>
<td>±35</td>
<td>5000</td>
<td></td>
</tr>
<tr>
<td>TLP5772(LF4)</td>
<td>-40 to 110°C</td>
<td>±4.0</td>
<td>3</td>
<td>2</td>
<td>150</td>
<td>±35</td>
<td>5000</td>
<td></td>
</tr>
</tbody>
</table>

**Notes:**

[1] Wider lead bend package than standard package
[2] TLP2710(LF4), TLP2745(LF4), TLP2748(LF4)
[3] \(I_{DCH}, I_{DCL}\)
[4] \(I_{FHL}\)
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.

**Internal Circuit**

TLP2710(LF4)  
TLP2745(LF4)  

TLP2748(LF4)  

TLP5771(LF4)  
TLP5772(LF4)  
TLP5774(LF4)  

1: Anode  
2: N.C.  
3: Cathode  
4: GND  
5: Vo(Output)  
6: VCC[5]

**Application Circuit Example**

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.

**Notes:**
[5] VDD for TLP2710(LF4)