### Flyback Transformer

For Silicon Labs Si88xx 5kV Isolated DC-DC Converter

- Developed for use with Silicon Labs Si88xx isolated dc-dc-converter reference designs.
- 5000 Vrms, one minute isolation from primary to secondary
- Designed to meet reinforced insulation class with 8mm creepage and clearance.
- AEC-200 Grade 1 qualified (−40°C to +125°C ambient)

### Core material
Ferrite

### Terminations
RoHS tin-silver-copper (95.5/3.8/0.7) over tin over nickel over phos bronze.

### Weight
1.1 g

### Ambient temperature
−40°C to +125°C

### Maximum part temperature
+135°C

### Storage temperature
Component: –40°C to +125°C.
Tape and reel packaging: –40°C to +80°C

### Resistance to soldering
Heat: Max three 40 secondreflos at +260°C, parts cooled to room temperature between cycles

### Moisture Sensitivity Level (MSL)
1 (unlimited floor life at <30°C / 85% relative humidity)

### Failures in Time (FIT) / Mean Time Between Failures (MTBF)
38 per billion hours / 26,315,789 hours, calculated per Telcordia SR-332

### Packaging
700 per 13″ reel Plastic tape: 32 mm wide, 0.40 mm thick, 16 mm pocket spacing, 5.72 mm pocket depth

### PCB washing
Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See Doc787_PCB_Washing.pdf.

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**Part number**

<table>
<thead>
<tr>
<th>Part number</th>
<th>Input voltage (V)</th>
<th>Inductance (µH)</th>
<th>Leakage inductance (µH)</th>
<th>DCR max (Ohms)</th>
<th>Turns ratio</th>
<th>Isolation (Vrms)</th>
<th>Isat (A)</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>TA7618-AL_</td>
<td>3.0 – 5.5</td>
<td>2.0</td>
<td>0.064</td>
<td>0.031 0.185</td>
<td>1 : 4</td>
<td>5000</td>
<td>4.8</td>
<td>5 V, 0.4 A</td>
</tr>
</tbody>
</table>

1. When ordering, specify a packaging code:

   **TA7618-ALD**

   **Packaging:**
   - D = 13″ machine ready reel. EIA-481 embossed plastic tape.
   - B = Less than full reel. In tape, but not machine ready. To have a leader and trailer added ($25 charge), use code letter D instead.

2. Inductance is for the primary, measured on an Agilent/HP 4284 at 100 kHz, 0.1 Vrms, 0 Adc.

3. Leakage inductance measured between pins 2 and 3 at 100 kHz, 0.1 Vrms, 0 Adc with pins 8 and 5 shorted.

4. Isolation (hipot) measured between windings for one minute.

5. DC current that causes an inductance drop of 30% (typ) from its value without current.


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**Diagram:**

- Dimensions are in inches (mm)

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