# Flyback Transformer

For Silicon Labs Si88xxx 5kV Isolated DC-DC Converter

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### Product Specifications

- **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**: +160°C
- **Storage Temperature**: Component: –40°C to +160°C.
  Tape and reel packaging: –40°C to +80°C
- **Resistance to Soldering Heat**: Max three 40 second reflows 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
- **PCB Washing**: Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See [Doc787_PCB_Washing.pdf](#).

### Electrical Specifications

<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>UA7902-ALD</td>
<td>7 – 24 Vdc</td>
<td>25.0</td>
<td>0.971</td>
<td>0.075</td>
<td>3:1</td>
<td>5000</td>
<td>1.3</td>
<td>5 V, 0.4 A</td>
</tr>
</tbody>
</table>

1. When ordering, specify a [packaging](#) code:
   - **UA7902-ALD**
     - **Packaging**: D = 13” machine ready reel. EIA-481 embossed plastic tape. Quantities less than full reel available: in tape (not machine ready) or with leader and trailer ($25 charge).
     - B = Less than full reel. In an effort to simplify our part numbering system, Coilcraft is eliminating the need for multiple packaging codes. When ordering, simply change the last letter of your part number from B to D.

2. Inductance is for the primary, measured on an Agilent/HP 4284 at 250 kHz, 0.1 Vrms, 0 Adc with all secondary pins shorted.
3. Leakage inductance measured between pins 1 and 3 at 250 kHz, 0.1 Vrms, 0 Adc with all secondary pins shorted.
4. DCR for secondary is for the windings connected in parallel.
5. Isolation (hipot) measured between windings for one minute.
6. DC current that causes an inductance drop of 30% (typ) from its value without current.
7. Electrical specifications at 25°C.

Refer to Doc 362 “Soldering Surface Mount Components” before soldering.

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### Recommended Land Pattern

Dimensions are in **mm**

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