Dual Inductor for Class-D **UA801x-AL**

- Developed for Texas Instruments TPA3220, TPA3244 & TPA3245
- Dual inductors for use in Class-D output filters
- A single shielded package contains both coils.
- Very low coupling coefficient (k<0.001) between the two inductors
- AEC-200 Grade 1 (–40°C to +125°C)
- Designed for 100 Watts into 4 Ohm load

**Core material**  Ferrite

**Terminations**  RoHS compliant tin-silver (96.5/3.5) over copper.

**Weight**  12.3 g

**Ambient temperature**  –40°C to +125°C with Irms (40°C) current

**Maximum part temperature**  +165°C (Ambient + temperature rise)

**Storage temperature**  Component: –40°C to +125°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)

**Tape and reel packaging**  150/13″ reel Plastic tape: 32 mm wide, 0.5 mm thick, 24 mm pocket spacing, 16.1 mm pocket depth

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

<table>
<thead>
<tr>
<th>Part number</th>
<th>Inductance ±10% (µH)</th>
<th>DCR max (mOhms)</th>
<th>SRF typ (MHz)</th>
<th>Isat (A)</th>
<th>Irms (A)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>10% drop</td>
<td>20% drop</td>
</tr>
<tr>
<td>UA8013-AL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>L1</td>
<td>7.0</td>
<td>6.6</td>
<td>40</td>
<td>12.0</td>
<td>12.5</td>
</tr>
<tr>
<td>L2</td>
<td>7.0</td>
<td>6.6</td>
<td>40</td>
<td>12.0</td>
<td>12.5</td>
</tr>
<tr>
<td>UA8014-AL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>L1</td>
<td>10.0</td>
<td>6.6</td>
<td>28</td>
<td>8.7</td>
<td>9.1</td>
</tr>
<tr>
<td>L2</td>
<td>10.0</td>
<td>6.6</td>
<td>28</td>
<td>8.7</td>
<td>9.1</td>
</tr>
</tbody>
</table>

1. When ordering, please specify packaging code:

**UA8013-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 measured at 100 kHz, 1.0 Vrms, 0 Adc using an Agilent/HP 4284A impedance analyzer.

3. **DCR** is for each winding, measured on a micro-ohmmeter.

4. SRF measured using Agilent/HP 8753D network analyzer.

5. DC current (typical) at which the inductance drops the specified amount from its value without current.

6. Current applied to windings at the same time that causes the specified temperature rise from 25°C ambient.

7. Electrical specifications at 25°C.

Refer to Doc 362 “Soldering Surface Mount Components” before soldering.
Class-D Dual Inductor – UA801x-AL

L vs Current

![L vs Current Graph](image)

---

**Recommended Land Pattern**

![Recommended Land Pattern](image)

Dimensions are in **inches**

---

**Dimensions**

- **L1**: 0.551 inches max
- **L2**: 0.610 inches max
- **L3**: 0.004 inches
- **L4**: 0.010 inches

---

**Table of Dimensions**

<table>
<thead>
<tr>
<th>Component</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>L1</td>
<td>0.551</td>
</tr>
<tr>
<td>L2</td>
<td>0.610</td>
</tr>
<tr>
<td>L3</td>
<td>0.004</td>
</tr>
<tr>
<td>L4</td>
<td>0.010</td>
</tr>
</tbody>
</table>

---

**Note**: This product may not be used in medical or high risk applications without prior Coilcraft approval. Specification subject to change without notice. Please check web site for latest information.