Coilcraft’s C0972-AL transformer and B0754-AL inductor were developed specifically for the ON Semiconductor NCP1216A PWM Current-Mode Controller.

They are specified in application note AND8161/D along with Coilcraft’s DS3316P-103 and DS3316P-102 shielded inductors. Refer to the separate data sheet for additional information about the DS3316 Series of inductors.

The C0972-AL features very low DCR, excellent leakage inductance and 1500 Vrms isolation from the primary and auxiliary windings to the secondary.

The B0754-AL is the output inductor and features four separate windings connected in parallel to minimize power losses and to limit temperature rise.

To request free evaluation samples, contact Coilcraft or visit www.coilcraft.com.

**C0972-AL Transformer**

<table>
<thead>
<tr>
<th>Part number</th>
<th>Output power (W)</th>
<th>Input voltage range (V)</th>
<th>Output voltage (V)</th>
<th>Output current (A rms)</th>
<th>Primary inductance(^1) min (mH)</th>
<th>Leakage inductance(^2) max (µH)</th>
<th>DCR max (Ohms)</th>
<th>Turns ratio pri: sec</th>
<th>Turns ratio pri: reset</th>
</tr>
</thead>
<tbody>
<tr>
<td>C0972-AL</td>
<td>60</td>
<td>36 – 75</td>
<td>12</td>
<td>5.0</td>
<td>0.817</td>
<td>1.50</td>
<td>0.056 (pri)</td>
<td>1:0.91</td>
<td>1:1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.031 (sec)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.480 (aux)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**2. Inductance measured between pins 2 and 4 at 10 kHz, 0.1 V, 0 Adc.**

**3. Leakage inductance measured between pins 2 and 4 at 100 kHz, 0.1 V, 0 Adc with all other pins shorted.**

**4. Operating temperature range: –40°C to +85°C.**

**5. Electrical specifications at 25°C.**

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

- **Weight:** 28.2 g
- **Terminations:** Tin-silver (96.5/3.5) over tin over nickel over phos bronze
- **Packaging:** 24 per tray

**Recommended Land Pattern**

Dimensions are in inches / mm
SMT Power Magnetics for ON Semiconductor NCP1216A
B0754-AL Inductor

Part number  Inductance¹ at 0 A ±10% (µH)  DCR max² (Ohms)  Isat³ (A)  Irms⁴ (A)
B0754-AL    100              0.282              8.0              4.8

1. Inductance measured at 10.0 kHz, 0.1 Vrms.
2. DCR is per winding.
3. Current at which inductance drops 10% (typ) from its value without current.
4. Average current for a 40°C temperature rise above 25°C ambient.
5. Operating temperature range −40°C to +85°C.
6. Electrical specifications at 25°C.

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

Typical L vs Frequency

Typical L vs Current

Temperature Rise vs Current

Weight: 27.4 g
Terminations: Tin-silver (96.5/3.5) over tin over nickel over phos bronze
Packaging: 24 per tray

Dimensions are in inches mm

Windings to be connected in parallel on the PC board