Planar Transformer

For Maxim MAX5069A
PWM Controller

The B0860-C is approved by Maxim for use with their MAX5069A high-frequency, current-mode, pulse-width modulation (PWM) controller.

This planar transformer can be used in push-pull, half-bridge and full-bridge topologies. It is ideal for use in high-current, isolated or nonisolated power supply applications. It offers high efficiency in a low-profile package and features split primary and secondary windings, a separate auxiliary winding and 1500 Vdc primary to secondary isolation.

Coilcraft’s Planar Prototyping Kit C356 was used to design this transformer. No tooling or additional parts were required. To order the kit, contact Coilcraft or purchase on-line at http://order.coilcraft.com.

Free evaluation samples of B0860-C are available by contacting Coilcraft or by visiting www.coilcraft.com.

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### Part Specifications

<table>
<thead>
<tr>
<th>Part number1</th>
<th>Output power (W)</th>
<th>Input voltage range (V)</th>
<th>Output voltage nom (V)</th>
<th>Output current (A peak)</th>
<th>Primary inductance min (µH)</th>
<th>Leakage inductance max (µH)</th>
<th>DCR max (mOhms)</th>
<th>Turns ratio4</th>
</tr>
</thead>
<tbody>
<tr>
<td>B0860-CL_</td>
<td>180</td>
<td>36 – 72</td>
<td>12</td>
<td>15</td>
<td>187.0</td>
<td>0.25</td>
<td>Pri: 38.0</td>
<td>10:4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>20,32</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Sec: 4.0</td>
<td>10:3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.810</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Aux: 120.0</td>
<td></td>
</tr>
</tbody>
</table>

1. When ordering, specify a packaging code:

   B0860-CL_D
   Packaging: D = 13” machine ready reel. EIA-481 embossed plastic tape (200 per full reel).

   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 measured on an Agilent/HP 4284 between pins 2 and 4 at 250 kHz, 0.1 Vrms, 0 Adc.

3. Leakage inductance measured between pins 2 and 4 at 250 kHz, 0.1 Vrms, 0 Adc with pins 6, 8 and 10 shorted.

4. Turns ratio is with the primary windings and secondary windings connected in series.

5. Storage and ambient operating temperature range: –40°C to +85°C.

6. Electrical specifications at 25°C.

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**Recommended Land Pattern**

- Dot indicates pin 1
- 0.810 max 20.37
- 0.920 23.37 max

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**Weight:** 11.8 g

**Terminations:** Matte tin over nickel over brass

**Tape and reel:** 200/13” reel 44 mm tape width

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