**Flyback Transformer**

For National Semiconductor

LM5020 PWM Controller

- Designed to operate up to 1 MHz with 36 – 72 V input.
- 3.3 V, 4.5A output with secondary windings connected in parallel. Bias output is 12 V.
- Ideal for 13 W, IEEE 802.3af-compliant, PoE applications.

**Core material** Ferrite

**Terminations** RoHS tin-silver over tin over nickel over phos bronze. Other terminations available at additional cost.

**Weight** 12.8 g

**Ambient temperature** –40°C to +85°C

**Storage temperature** Component: –40°C to +85°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

**Packaging** 175 per 13” reel Plastic tape: 44 mm wide, 0.4 mm thick, 32 mm pocket spacing, 11.9 mm pocket depth

**PCB washing** Tested with pure water or alcohol only. For other solvents, see Doc787_PCB_Washing.pdf

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<table>
<thead>
<tr>
<th>Part number</th>
<th>L at 0 A²</th>
<th>L at Ipk³</th>
<th>DCR max (Ohms)⁴</th>
<th>Leakage L (µH)⁵</th>
<th>Turns ratio⁶</th>
<th>Capacitance⁷</th>
<th>Ipk³</th>
<th>Isolation⁸</th>
</tr>
</thead>
<tbody>
<tr>
<td>B0695-AL</td>
<td>110</td>
<td>99.0</td>
<td>0.133</td>
<td>0.130</td>
<td>1.11</td>
<td>100</td>
<td>1.5</td>
<td>1500</td>
</tr>
</tbody>
</table>

1. When ordering, please specify a **packaging** code:

   - **B0695-ALD**
   - **D** = 13” machine ready reel. EIA-481 embossed plastic tape (175 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 is for the primary, measured at 10 kHz, 0.1 Vrms, 0 Adc.
   - Ipk is the peak current drawn at minimum input voltage.

3. Dot indicates pin 1

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**Recommended Land Pattern**

Secondary windings to be connected in parallel on PC board.

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**Dimensions are in inches**

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**Notes:**

- Parts manufactured prior to December 2011 may be marked differently.
- Tested with pure water or alcohol only. For other solvents, see Doc787_PCB_Washing.pdf
- Dimensions are in inches

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**For More Information:**

Visit www.coilcraft.com

- US +1-847-639-6400 sales@coilcraft.com
- UK +44-1236-730595 sales@coilcraft-europe.com
- Taiwan +886-2-2264 3646 sales@coilcraft.com.tw
- China +86-21-6218 8074 sales@coilcraft.com.cn
- Singapore + 65-6484 8412 sales@coilcraft.com.sg

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