Flyback Transformer  For Texas Instruments  
LM5000 DC/DC Regulator

This surface mount flyback transformer is designed for use with Texas Instruments LM5000 DC/DC regulator. The core completely encloses the windings to minimize EMI interference. The transformer features very low DCR, 500 Vrms isolation and a leakage inductance rating of just 1.0 \( \mu \text{H} \). Coilcraft can also custom engineer a transformer to meet your specific requirements.

For free evaluation samples, contact Coilcraft or order them on-line at [www.coilcraft.com](http://www.coilcraft.com).

<table>
<thead>
<tr>
<th>Inductance(^2) ±20% ((\mu\text{H}))</th>
<th>Input voltage (V)</th>
<th>Output</th>
<th>DCR max (Ohms)</th>
<th>Leakage Inductance(^3) max ((\mu\text{H}))</th>
<th>Turns ratio in:out:aux</th>
<th>Isolation(^4) (Vrms)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part number: A0009-AL_</td>
<td>100</td>
<td>100</td>
<td>18 – 55</td>
<td>3.3 V @ 3 A</td>
<td>0.150 (1 – 4)</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.150 (2 – 3)</td>
<td>1 : 0.33 : 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.012 (5,6 – 7,8)</td>
<td></td>
</tr>
</tbody>
</table>

1. When ordering, please specify a packaging code:
   - A0009-AL_
   - Packaging: D = 13" machine ready reel. EIA-481 embossed plastic tape (150 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 at 100 kHz, 0.1 Vrms, 0 Adc.
3. Leakage inductance measured at 100 kHz, 0.1 Vrms from pins 1 to 4 with all other pins shorted.
4. Isolation measured from pin 1 to pins 5 and 6; from 2 to 5 and 6; and from pins 1, 2, 5 and 6 to the core for one minute.
5. Electrical specifications at 25°C.

Core material  Ferrite Termination  RoHS tin-silver over tin over nickel over phos bronze. Other terminations available at additional cost.
Weight  7.86 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  150 per 13" reel Plastic tape: 44 mm wide, 0.5 mm thick, 28 mm pocket spacing, 13.8 mm pocket depth
PCB washing  Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See [Doc787_PCB_Washing.pdf](http://www.coilcraft.com).

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Refer to Doc 362 "Soldering Surface Mount Components" before soldering.
A0009-AL Flyback Transformer

Parts manufactured prior to February 2017 were marked with a label and did not have a dot indicating pin1.

Recommended Land Pattern

Dimensions are in inches

Output
3.3 V @ 3 A

Input

Auxiliary

Pin 1 indicator

Internal code

Output 3.3 V @ 3 A

Input

Auxiliary

Dimensions are in inches

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Recommended Land Pattern

Dimensions are in inches

Output 3.3 V @ 3 A

Input

Auxiliary

Dimensions are in inches

Output 3.3 V @ 3 A

Input

Auxiliary

Dimensions are in inches