Flyback Transformer

For Texas Instruments UCC28600 Flyback Green Mode Controller

- Triple-output flyback transformer
- Designed to operate at 50 kHz with universal ac input
- 3000 Vrms, one minute isolation from primary and bias to secondaries

Core material  Ferrite
Terminations  RoHS compliant tin-silver over tin over copper over steel. Other terminations available at additional cost.
Weight  9.7 g
Ambient temperature  −40°C to +85°C
Storage temperature  Component: −40°C to +85°C.
Tray packaging: −40°C to +80°C
Moisture Sensitivity Level (MSL)  1 (unlimited floor life at <30°C / 85% relative humidity)
Packaging  100 per tray
PCB washing  Tested with pure water or alcohol only. For other solvents, see Doc787_PCB_Washing.pdf.

<table>
<thead>
<tr>
<th>Part number</th>
<th>L at 0 A 1</th>
<th>L at Ip k2</th>
<th>DCR max (Ohms)</th>
<th>Leakage L3 max (µH)</th>
<th>Turns ratios</th>
<th>Ip k 3 (A)</th>
<th>Outputs</th>
</tr>
</thead>
<tbody>
<tr>
<td>HA4018-AL</td>
<td>2.2  ±10%</td>
<td>1.7</td>
<td>1.55 (pri)</td>
<td>28.5</td>
<td>6.4 : 1 (pri : bias)</td>
<td>0.3</td>
<td>+15 V, 0.05 A (sec 1)</td>
</tr>
<tr>
<td></td>
<td>(mH)</td>
<td>min (mH)</td>
<td>0.350 (bias)</td>
<td></td>
<td>8.2 : 1 (pri : sec 1)</td>
<td></td>
<td>+5 V, 0.35 A (sec 2)</td>
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<td></td>
<td></td>
<td></td>
<td>0.061 (sec 1)</td>
<td></td>
<td>15 : 1 (pri : sec 2)</td>
<td></td>
<td>−15 V, 0.125 A (sec 3)</td>
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<td></td>
<td></td>
<td></td>
<td>0.305 (sec 2)</td>
<td></td>
<td>5.3 : 1 (pri : sec 3)</td>
<td></td>
<td>+12 V, 20 mA (bias)</td>
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<td></td>
<td></td>
<td></td>
<td>0.450 (sec 3)</td>
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</tbody>
</table>

1. Inductance is for the primary, measured at 50 kHz, 0.1 Vrms, 0 Adc.
2. Ip k is peak primary current drawn at minimum input voltage.
3. Leakage inductance is for the primary winding, measured at 50 kHz, 0.1 Vrms, 0 A with all secondary pins shorted.
4. Electrical specifications at 25°C.

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Dimensions are in inches (mm)

Dot indicates pin 1

Recommended PC Board Layout