Flyback Transformer

For Texas Instruments UCD3K Digital Power Controller

- Specified by Texas Instruments for use in the Bias Power Supply for their UCD3K Digital Power Controller
- Universal input; 5 Watt output
- 3000 Vrms, one minute isolation Pri and P1 to S1 and Sense; 1500 Vrms, one minute isolation windings to core
- Designed to meet UL/CSA/IEC 60950 Reinforced Insulation Class; 3.0 mm creepage and clearance.

Core material Ferrite

Terminations RoHS compliant tin-silver over tin over copper. Other terminations available at additional cost.

Weight 13.4 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)

Failures in Time (FIT) / Mean Time Between Failures (MTBF)
38 per billion hours / 26,315,789 hours, calculated per Telcordia SR-332

Packaging 100 per tray

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>Inductance at 0 A(^1) (mH)</th>
<th>Inductance at (I_{pk}) (^2) (mH)</th>
<th>DCR max (Ohms)</th>
<th>Leakage inductance max (µH)(^3)</th>
<th>Turns ratio Pri : S1 : P1 : Sense</th>
<th>(I_{pk}) (^2) (A)</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>GA3544-BL</td>
<td>2.3</td>
<td>1.61</td>
<td>0.860 (Pri)</td>
<td>17.6</td>
<td>1 : 0.158 : 0.158 : 0.079</td>
<td>0.3</td>
<td>12 V, 0.2 A (S1)</td>
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<td></td>
<td></td>
<td></td>
<td>0.131 (P1)</td>
<td></td>
<td></td>
<td></td>
<td>12 V, 0.2 A (P1)</td>
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<td></td>
<td></td>
<td></td>
<td>0.109 (S1)</td>
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<td></td>
<td>0.155 (Sense)</td>
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</table>

1. Inductance measured at 100 kHz, 0.1 Vrms, 0 Adc using an Agilent/HP 4263B impedance analyzer or equivalent.
2. Peak primary current drawn at minimum input voltage.
3. Leakage inductance is for the primary and is measured with the secondary shorted.
4. Electrical specifications at 25°C.

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Dimensions are in inches

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Dot indicates pin 1

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Recommended PC Board Layout