Flyback Transformer

For TI UCC28600
Flyback Green Mode Controller

The FA2443-AL was developed specifically for Texas Instruments UCC28600 Quasi-Resonant Flyback Green Mode Controller and is specified in SLUU256A for the evaluation module. This transformer is designed to operate in discontinuous conduction mode at frequencies up to 140 kHz.

<table>
<thead>
<tr>
<th>Part number</th>
<th>Inductance ±10% (µH) at 0 A</th>
<th>Inductance at Ip k (µH) min</th>
<th>DCR max (Ohms)</th>
<th>Leakage inductance at Ip k (µH) max</th>
<th>Turns ratio pri : sec</th>
<th>Ip k (A) pri : bias</th>
<th>Isolation (Vrms)</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>FA2443-AL</td>
<td>200</td>
<td>162</td>
<td>0.217 (4–6)</td>
<td>0.020 (8–13)</td>
<td>6:1</td>
<td>6:1</td>
<td>6.0</td>
<td>1500</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0.020 (9–14)</td>
<td>0.515 (1–7)</td>
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</tbody>
</table>

1. Inductance is for the primary, measured at 10 kHz, 0.1 Vrms, 0 Adc.
2. Peak primary current drawn at minimum input voltage.
3. Leakage inductance is for the primary and is measured at 100 kHz, 0.1 Vrms with all other windings shorted.
4. Turns ratio for the secondary is with the windings connected in parallel.
5. Isolation is from the primary to all other windings, tested for one minute.
6. Electrical specifications at 25°C.

Refer to Doc 362 “Soldering Surface Mount Components” before soldering.

Core material Ferrite

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

Weight 89.2 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 50 parts per tray

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

Secondary windings to be connected in parallel on the PC board.

Dimensions are in inches

Recommended PCB Layout

Secondary windings to be connected in parallel on the PC board.

RoHS Compliant

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