Flyback Transformer
For TI 24 Watt Power Supply
Reference Design TIDA-01344

Key Features:
- Designed for Texas Instruments 24 W, 48 V automotive battery front-end power supply Reference Design TIDA-01344.
- Operates at 333 kHz with 10-80 Volts input.
- 3000 Vrms, one minute isolation (hipot) from pri and aux to sec; 1500 Vrms all pins to the core.
- AEC-Q200 Grade 1 qualified (−40°C to +125°C ambient).

Specifications:
- Core material: Ferrite
- Terminations: RoHS tin-silver-copper over tin over nickel over phos bronze.
- Weight: 27.5 g
- Ambient temperature: −40°C to +125°C
- Maximum part temperature: +165°C (ambient + temp rise).
- Storage temperature: Component: −40°C to +165°C.
- Tray 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: 24 per tray

**Table:**

<table>
<thead>
<tr>
<th>Part number</th>
<th>Inductance at 0 A</th>
<th>Inductance at Ipk</th>
<th>DCR max (Ohms)</th>
<th>Leakage inductance</th>
<th>Turns ratio</th>
<th>Ipk (A)</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>±10% (µH)</td>
<td>min (µH)</td>
<td>pri sec aux</td>
<td>max (µH)</td>
<td>pri:sec:aux</td>
<td></td>
<td></td>
</tr>
<tr>
<td>UA8263-AL</td>
<td>35.0</td>
<td>31.5</td>
<td>0.010 0.009 0.090</td>
<td>0.170</td>
<td>1:0.5 1:0.5</td>
<td>3.6</td>
<td>12 V</td>
</tr>
</tbody>
</table>

1. Inductance is for the primary, measured at 333.33 kHz, 0.1 Vrms, 0 Auc.
2. Peak primary current drawn at minimum input voltage.
3. Leakage inductance is for the primary winding with all other windings shorted.
4. Output of the auxiliary winding is 13 V, 50 mA.
5. Electrical specifications at 25°C.

Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

These pins to be connected on the PCB board: 1 to 2, 3 to 4, 7 to 8 and 11 to 12.
Flyback Transformer for Texas Instruments TIDA-01344

Recommended Land Pattern

Dimensions are in inches / mm

UA8263-AL

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