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

- 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)

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)
Packaging  24 per tray
PCB washing  Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See Doc787_PCB_Washing.pdf.

<table>
<thead>
<tr>
<th>Part number</th>
<th>Inductance at 0 A(^1) ±10% (µH)</th>
<th>Inductance at Ipk(^2) min (µH)</th>
<th>DCR max (Ohms) (\text{pri} \ sec \ aux)</th>
<th>Leakage inductance max (µH)</th>
<th>Turns ratio pri : sec pri : aux</th>
<th>Ipk(^2) (A)</th>
<th>Output(^4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>UA8263-AL</td>
<td>35.0</td>
<td>31.5</td>
<td>0.010</td>
<td>0.090</td>
<td>0.170</td>
<td>1:0.5</td>
<td>3.6</td>
</tr>
</tbody>
</table>

1. Inductance is for the primary, measured at 333.33 kHz, 0.1 Vrms, 0 Adc.
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 PC board: 1 to 2, 3 to 4, 7 to 8 and 11 to 12.
Flyback Transformer for Texas Instruments TIDA-01344

Dimensions are in inches / mm

Recommended Land Pattern

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