SMT Planar Transformer

For TI UCC2897 12 V/264 W
Active Clamp Forward

- Developed for Texas Instruments UCC2897 Active Clamp Forward (PMP7376 reference design)
- Designed for 52 – 60 Vdc input; 12 V, 22 A output
- High efficiency; excellent DCR; very low leakage inductance;
- 1500 Vrms, one minute primary to secondary isolation (hipot)

Core material: Ferrite
Terminations: Matte tin over nickel over brass.
Weight: 22.0 g
Ambient temperature: −40°C to +125°C
Maximum part temperature: +155°C (ambient + temp rise)
Storage temperature: Component: −40°C to +155°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: 36 per tray

Primary Inductance is for the primary, measured on Agilent/HP 4284A at 200 kHz, 0.5 Vrms, 0 Adc.
Leakage Inductance is for the primary, measured at 100 kHz, 0.1 Vrms, 0 Adc with secondary pins shorted.
Vol-time product is for the primary, between pin 2 and 3.
Output: Output of the aux winding is 12 V.

Electrical specifications at 25°C.
Refer to Doc 362 “Soldering Surface Mount Components” before soldering.

<table>
<thead>
<tr>
<th>Part number</th>
<th>Turns</th>
<th>Primary inductance1 (µH)</th>
<th>Leakage inductance max (µH)</th>
<th>DCR max (mOhms)</th>
<th>Volt-time product typ3 (V-µsec)</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>NA5738-DL</td>
<td>5</td>
<td>2</td>
<td>2</td>
<td>100</td>
<td>12 V, 22 A</td>
<td></td>
</tr>
</tbody>
</table>

1. Inductance is for the primary, measured on Agilent/HP 4284A at 200 kHz, 0.5 Vrms, 0 Adc.
2. Leakage Inductance is for the primary, measured at 100 kHz, 0.1 Vrms, 0 Adc with secondary pins shorted.
3. Volt-time product is for the primary, between pin 2 and 3.
4. Output of the aux winding is 12 V.
5. Electrical specifications at 25°C.

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

Dimensions are in inches

Recommended Land Pattern

For TI UCC2897 Active Clamp Forward