SMT Planar Transformer

For TI UCC2897 12 V/150 W
Active Clamp Forward

- Developed for Texas Instruments UCC2897 Active Clamp Forward (PMP9720 reference design)
- Designed for 48 – 60 Vdc input; 12 V, 13 A
- High efficiency; excellent DCR; very low leakage inductance; 1500 Vrms, one minute primary to secondary isolation.
- Provides 0.009” (0.229 mm) clearance above the seating plane

Core material: Ferrite
Terminations: Matte tin over nickel over brass.
Weight: 12.7 g
Ambient temperature: –40°C to +125°C
Maximum part temperature: +165°C (ambient + temp rise)
Storage temperature: Component: –40°C to +125°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: 36 per tray

<table>
<thead>
<tr>
<th>Part number</th>
<th>Turns</th>
<th>Primary inductance</th>
<th>Leakage inductance</th>
<th>DCR max (mOhms)</th>
<th>Volt-time product typ</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>RA7040-AL</td>
<td>6 6 3 3</td>
<td>50</td>
<td>0.55</td>
<td>10.75</td>
<td>61.1</td>
<td>100</td>
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</tbody>
</table>

1. Inductance is for the primary, measured on Agilent/HP 4284A at 200 kHz, 0.5 Vrms, 0 Adc with primary windings connected in parallel.
2. Leakage Inductance is for the primary, measured at 200 kHz, 0.5 Vrms, 0 Adc with primary windings connected in parallel and all secondary pins shorted.
3. Primary DCR measured with primary windings connected in parallel.
4. Volt-time product is based on primary windings connected in parallel.
5. Output of the secondary, 12 V 13 A, is from pins 11 – 8, Output of the aux winding is 12 V.
6. Electrical specifications at 25°C.

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

Primary windings to be connected in parallel on the PC board.
RA7040-AL SMT Planar Transformer

Dimensions are in inches (mm)

Recommended Land Pattern

This product may not be used in medical or high risk applications without prior Coilcraft approval. Specification subject to change without notice. Please check web site for latest information.