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)
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
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>Turns</th>
<th>Primary inductance1</th>
<th>Leakage inductance2</th>
<th>DCR max (mOhms)</th>
<th>Volt-time product typ3</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>NA5738-DL</td>
<td>5 2 2</td>
<td>100</td>
<td>0.18</td>
<td>4.8 1.7 18</td>
<td>94.5</td>
<td>12 V, 22 A</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 based on primary turns and 3000 gauss.
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.