Flyback Transformer

For Texas Instruments

TPS61046 Boost Converter

- Developed for TI's Isolated Flyback DC-DC converter reference design (PMP9801) based on the TPS61046 boost converter.
- 5 – 20 V input; 5 V, 250 mA output
- Output of the auxiliary winding is 5 V, 2 mA used to power the IC
- 4000 Vrms, one minute isolation from the primary and auxiliary winding to the secondary

Core material  Ferrite
Terminations  RoHS tin-silver over tin over nickel over phos bronze.
Weight  1.08 g
Ambient temperature  -40°C to +125°C
Maximum part temperature  +160°C (ambient + temp rise).
Storage temperature  Component: -40°C to +160°C.
Tape and reel packaging: -40°C to +80°C
Resistance to soldering heat  Max three 40 second reflo ws 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  700 per 13" reel Plastic tape: 32 mm wide, 0.40 mm thick, 16 mm pocket spacing, 5.72 mm pocket depth
PCB washing  Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See Doc787_PCB_Washing.pdf

Part

<table>
<thead>
<tr>
<th>Inductance at 0 A²</th>
<th>Inductance at Ipk³ min (µH)</th>
<th>DCR max (Ohms)</th>
<th>Leakage inductance max (µH)²</th>
<th>Turns ratio</th>
<th>Ipk³ (A)</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>CX9721-AL_</td>
<td>10</td>
<td>8</td>
<td>0.08</td>
<td>0.08</td>
<td>0.08</td>
<td>0.16</td>
</tr>
</tbody>
</table>

1. When ordering, please specify packaging code:

   CX9721-ALD

   Packaging:  
   D = 13" machine-ready reel. EIA-481 embossed plastic tape (700 parts per full reel).
   B = Less than full reel. In tape, but not machine ready.
   To have a leader and trailer added ($25 charge), use code letter D instead.

2. Inductance is for the primary, measured at 100 kHz, 0.1 Vrms, 0 Adc.
3. Ipk is peak primary current drawn at minimum input voltage.
4. Leakage inductance measured at 100 kHz, 0.1 Vrms, between pins 1 and 2 with all other pins shorted.
5. Electrical specifications at 25°C.
Refer to Doc 362 “Soldering Surface Mount Components” before soldering.

Dimensions are in inches mm