Flyback Transformer

For Texas Instruments
PMP7899 Reference Design

- Developed for Texas Instruments PMP7899 Reference Design for Non-Synchronous Flyback Converter with an isolated output
- 8 – 18 V input; 48 V, 1 A output
- Aux winding output 9 V, 20 mA
- 1500 Vrms, one minute primary and aux to secondary isolation (hipot)

Core material: Ferrite
Terminiations: RoHS tin-silver (96.5/3.5) over tin over nickel over phosph bronze. Other terminations available at additional cost.
Weight: 25.9 g
Ambient temperature: –40°C to +125°C
Maximum input temperature: +125°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: 24 parts per tray

<table>
<thead>
<tr>
<th>Part number</th>
<th>Inductance at 0 Adc(^1) ±15% (µH)</th>
<th>Inductance at Ipk(^2) min (µH)</th>
<th>DCR max (Ohms)</th>
<th>Leakage Inductance max (µH)</th>
<th>Turns ratio</th>
<th>Ipk(^2) (A)</th>
<th>Output(^3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NA6264-AL</td>
<td>2.56</td>
<td>2.176</td>
<td>0.0065 (pins 1 – 3)</td>
<td>0.0065 (pins 2 – 4)</td>
<td>0.060</td>
<td>1 : 6</td>
<td>pri : sec</td>
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<td></td>
<td></td>
<td></td>
<td>0.130 (pins 5 – 6)</td>
<td>0.110 (pins 11 – 8)</td>
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<td>pri : aux</td>
<td>1 : 1.5</td>
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<td></td>
<td></td>
<td></td>
<td>16.5</td>
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<td>48 V, 1 A</td>
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</tbody>
</table>

1. Inductance is for the primary with windings connected in parallel, measured at 300 kHz, 0.3 Vrms.
2. Peak primary current drawn at minimum input voltage.
3. Leakage inductance is for the primary with the windings connected in parallel and with the secondary winding shorted.
4. Output is for the secondary. Aux winding output is 9 V, 20 mA.
5. Electrical specifications at 25°C.

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

Primary windings to be connected on the PC board.

Dot indicates pin 1

Dimensions are in inches/mm