# Fly-Buck™ Transformer

For Texas Instrument PMP30227 Isolated Power Supply

- Developed for use with Texas Instrument PMP30227 Automotive Isolated 15 V/4.5 W Bias Power Supply
- 2500 Vrms, one minute isolation from primary to secondary
- Designed to meet basic insulation class with 3 mm creepage and clearance

**Core material** Ferrite  
**Terminations** RoHS tin-silver-copper (95.5/3.8/0.7) over tin over nickel over phos bronze.  
**Weight** 5.23 g  
**Ambient temperature** −40°C to +125°C  
**Maximum part temperature** +165°C  
**Storage temperature** Component: −40°C to +165°C. Tape and reel packaging: −40°C to +65°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

## Specifications

<table>
<thead>
<tr>
<th>Part number</th>
<th>Input voltage (V)</th>
<th>Inductance $\pm 10%$ (µH)</th>
<th>DCR max (Ohms)</th>
<th>Leakage inductance max (µH)</th>
<th>Turns ratio</th>
<th>Isolation (Vrms)</th>
<th>Isat (A)</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>WA8417-AL</td>
<td>8 – 28</td>
<td>47.0</td>
<td>0.185</td>
<td>0.37</td>
<td>1 : 2</td>
<td>2500</td>
<td>2.8</td>
<td>15 V, 0.3 A</td>
</tr>
</tbody>
</table>

1. When ordering, specify a **packaging** code:  

Packaging:  
- **WA8417-ALD**  
  - D = 13” machine ready reel. EIA-481 embossed plastic tape (600 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 on an Agilent/HP 4284 at 400 kHz, 0.6 Vrms, 0.6 Adc.

3. Leakage inductance measured between pins 3 and 4 at 400 kHz, 0.6 Vrms, 0 Adc with pins 10 and 9 shorted.

4. Isolation (hipot) measured between windings for one minute.

5. DC current that causes an inductance drop of 30% (typ) from its value without current.

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

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![Fly-Buck™ Transformer](image)

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**Recommended Land Pattern**

![Recommended Land Pattern](image)

**Dimensions are in inches**

- Primary: 10 in, 11 in, 3.43 in, 0.665 in, 0.998 in, 2.5 in
- Secondary: 4 in, 2 in, 11 in, 3.43 in, 0.665 in, 0.998 in, 2.5 in

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