No-Opto Flyback Transformer

For Maxim Integrated MAX17690
Peak Current Mode Controller

- Optimized for Maxim’s MAXREFDES1226 reference design and MAX17690 No-Opto Isolated Flyback Controllers
- Designed for discontinuous conduction mode, 17 – 36 V input
- 1500 Vrms, 1 minute isolation (hipot), between primary to secondary

Core material: Ferrite
Terminations: RoHS tin-silver-copper over tin over nickel over phosphor bronze. Other terminations available at additional cost.
Weight: 1.5 g
Ambient temperature: -40°C to +125°C
Storage temperature: Component: -40°C to +125°C.
Tape and reel 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: 500 per 13” reel. Plastic tape: 24 mm wide, 0.36 mm thick, 16 mm pocket spacing, 6.13 mm pocket depth

<table>
<thead>
<tr>
<th>Part number</th>
<th>Inductance at 0 Adc2 ±10% (µH)</th>
<th>Inductance at 2.6 Adc3 min (µH)</th>
<th>Isat4 (A)</th>
<th>DCR max (Ohms) pri sec</th>
<th>Leakage Inductance max5 (µH)</th>
<th>Turns ratio pri : sec</th>
<th>Isolation6 (Vrms)</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>YA9280-ALD</td>
<td>18</td>
<td>15.3</td>
<td>3.75</td>
<td>0.101</td>
<td>0.027</td>
<td>0.572</td>
<td>1 : 0.4</td>
<td>1500</td>
</tr>
</tbody>
</table>

1. **Packaging:** D = 13” machine ready reel. EIA-481 embossed plastic tape (500 parts per full reel). Quantities less than full reel available: in tape (not machine ready) or with leader and trailer ($25 charge).
2. **Inductance** is for the primary, measured at 150 kHz, 0.1 Vrms, 0 Adc.
3. Minimum inductance is for the primary, measured at 150 KHz, 0.1 Vrms, 2.6 Adc.
4. DC current that causes an inductance drop of 30% (typ) from its value without current.
5. Leakage inductance is for the primary winding with the secondary windings shorted.
6. Isolation (hipot) measured between windings for one minute.
7. Electrical specifications at 25°C.

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

**L vs Current**

<table>
<thead>
<tr>
<th>Current (A)</th>
<th>Inductance (µH)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>24</td>
</tr>
<tr>
<td>0.25</td>
<td>16</td>
</tr>
<tr>
<td>1</td>
<td>12</td>
</tr>
<tr>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>2</td>
</tr>
</tbody>
</table>

**Dimensions** are in inches

**Recommended Land Pattern**

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Specification subject to change without notice.
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