Flyback Transformer

For Maxim MAX5941B
PWM Controller

- Flyback transformer for 13 W PoE applications
- Designed to operate with 30 – 60 V input at 275 kHz
- 1500 Vrms, one minute isolation from primary to secondary windings

Core material  Ferrite
Terminations  RoHS tin-silver over tin over nickel over phos bronze. Other terminations available at additional cost.
Weight  5.5 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 refloows 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  200 per 13” reel. Plastic tape: 44 mm wide, 0.4 mm thick, 28 mm pocket spacing, 9.6 mm pocket depth
PCB washing  Tested with pure water or alcohol only. For other solvents, see Doc787_PCB_Washing.pdf

1. When ordering, please specify termination and packaging codes:

   Part number: GA3271-AL_
   Terminations: L = RoHS tin-silver over tin over nickel over phos bronze.
   Special order: T = RoHS tin-silver-copper (95.5/4/0.5) or S = non-RoHS tin-lead (63/37).
   Packaging: D = 13” machine-ready reel. EIA-481 embossed plastic tape (200 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 250 kHz, 0.1 Vrms.
3. Peak primary current drawn at minimum input voltage.
4. DCR for the primary and for the secondary are with the windings connected in parallel.
5. Leakage inductance is for the primary windings with the secondary windings shorted.
6. Turns ratios are with the primary the secondary windings connected in parallel.
7. Output of the secondary is with the windings connected in parallel. Bias winding output is 15 V, 20 mA.
8. Electrical specifications at 25°C.

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

### Specifications

<table>
<thead>
<tr>
<th>Part number</th>
<th>Power (W)</th>
<th>Inductance at 0 A²</th>
<th>Inductance at Ipk³</th>
<th>DCR max (Ohms)</th>
<th>Leakage inductance ²</th>
<th>Turns ratios ²</th>
<th>Ipk³ (A)</th>
<th>Output ²</th>
</tr>
</thead>
<tbody>
<tr>
<td>GA3271-AL_</td>
<td>13</td>
<td>117.5</td>
<td>104.0</td>
<td>0.201</td>
<td>0.06</td>
<td>0.335</td>
<td>0.815</td>
<td>1:0.457</td>
</tr>
</tbody>
</table>

1. When ordering, please specify termination and packaging codes:

   - **GA3271-ALD**: Termination: L = RoHS tin-silver over tin over nickel over phos bronze.
   - **GA3271-ALD**: Special order: T = RoHS tin-silver-copper (95.5/4/0.5) or S = non-RoHS tin-lead (63/37).
   - **GA3271-ALD**: Packaging: D = 13” machine-ready reel. EIA-481 embossed plastic tape (200 parts per full reel).
   - **GA3271-ALD**: 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 250 kHz, 0.1 Vrms.
3. Peak primary current drawn at minimum input voltage.
4. DCR for the primary and for the secondary are with the windings connected in parallel.
5. Leakage inductance is for the primary windings with the secondary windings shorted.
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Refer to Doc 362 “Soldering Surface Mount Components” before soldering.

### Recommended Land Pattern

- Primary and secondary windings to be connected in parallel on PC board.

- Dot indicates pin 1

Parts manufactured prior to December 2011 may be marked differently.

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This product may not be used in medical or high risk applications without prior Coilcraft approval.
Specification subject to change without notice.
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