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 refractions at +260°C, parts cooled to room temperature between cycles
Moisture Sensitivity Level (MSL)  1 (unlimited floor life at <30°C / 85% relative humidity)
Packaging  200 per 13” reel. Plastic tape: 44 mm wide, 0.4 mm thick, 28 mm pocket spacing, 6.6 mm pocket depth
PCB washing  Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See Doc787_PCB_Washing.pdf.

<table>
<thead>
<tr>
<th>Part number 1</th>
<th>Power (W)</th>
<th>Inductance at 0 A 2±10% (µH)</th>
<th>Inductance at Ipk 3</th>
<th>DCR max (Ohms) 4</th>
<th>Leakage inductance 5</th>
<th>Turns ratios 6</th>
<th>Ipk 3 (A)</th>
<th>Output 7</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>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1:0.571</td>
<td>1.0</td>
<td>12 V, 1.0 A</td>
</tr>
</tbody>
</table>

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

   - Termination: 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), Quantities less than full reel available: in tape (not machine ready) or with leader and trailer ($25 charge).
   - B = Less than full reel. In an effort to simplify our part numbering system, Coilcraft is eliminating the need for multiple packaging codes. When ordering, simply change the last letter of your part number from B to D.

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.

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

Recommended Land Pattern

Parts manufactured prior to December 2011 may be marked differently.

+1-847-639-6400   sales@coilcraft.com
+44-1236-730595   sales@coilcraft-europe.com
+886-2-2264 8074   sales@coilcraft.com.tw
+86-21-6218 8074   sales@coilcraft.com.cn
+65-6484 8412   sales@coilcraft.com.sg

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