Flyback Transformer  For Linear Technology
LTC3300-1 Cell Balancer

• Flyback transformer developed for Linear Technology LTC3300-1 Bidirectional Cell Balancer
• 1500 Vrms primary to secondary isolation; 500 Vrms isolation between windings of the primary and the secondary

Core material  Ferrite
Terminals  RoHS tin-silver (96.5/3.5) over tin over nickel over phos bronze. Other terminations available at additional cost.
Weight  6.0 g
Ambient temperature  –40°C to +85°C with I rms current
Maximum part temperature  +125°C (ambient + temp rise)
Storage temperature  Component: –40°C to +85°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 perTelcordia SR-332
Packaging  175 per 13" reel. Plastic tape: 32 mm wide, 0.6 mm thick, 28 mm pocket spacing, 12.93 mm pocket depth
PCB washing  Tested with pure water or alcohol only. For other solvents, see Doc787_PCB_Washing.pdf

<table>
<thead>
<tr>
<th>Part number1</th>
<th>Inductance at 0 A2/±15% (µH)</th>
<th>Inductance at Ipk3 min (µH)</th>
<th>DCR max (Ohms)4 pri/ sec</th>
<th>Leakage inductance max (µH)5 pri/ sec</th>
<th>Turns ratio6 pri : sec</th>
<th>Ipk3 (A) pri</th>
<th>I rms7 (A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MA5421-AL</td>
<td>3.4</td>
<td>2.8</td>
<td>0.009</td>
<td>0.011</td>
<td>1.5</td>
<td>0.15</td>
<td>10</td>
</tr>
</tbody>
</table>

1. When ordering, please specify packaging code:

MA5421-ALD  = 13" machine-ready reel. EIA-481 embossed plastic tape (175 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 100 kHz, 0.1 Vrms, 0 Adc.
3. Ipk is peak primary current drawn at minimum input voltage.
4. DCR is for the windings connected in parallel.
5. Leakage inductance is for the primary windings connected in parallel and is measured with the secondary windings shortsed.
6. Turns ratio is with the primary windings and the secondary windings connected in parallel.
7. Current that causes a 40°C rise from 25°C ambient, tested with continuous current flowing through all windings. This information is for reference only and does not represent absolute maximum ratings.
8. Electrical specifications at 25°C.
Refer to Doc 362 “Soldering Surface Mount Components” before soldering.

Dimensions are in inches / mm

Primary windings and secondary windings to be connected in parallel on the PCB board

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