8 W Forward-Mode Transformers

- Designed for forward topology operating at 250 kHz
- Five outputs from 3.3 V to 15 V; 18 – 36 V input
- 1500 Vrms isolation from primary and aux to the secondary
- Specified by Texas Instruments for its LM5015 Two-Switch Forward Regulator

Core material: Ferrite
Terminations: RoHS tin-silver over tin over nickel over phos bronze. Other terminations available at additional cost.

Weight: 4.0 – 4.3 g
Ambient temperature: –40°C to +85°C
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 refows 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: 32 mm wide, 0.5 mm thick, 24 mm pocket spacing, 11.2 mm pocket depth

PCB Washing: Tested with pure water or alcohol only. For other solvents, see Doc787_PCB_Washing.pdf.

### Electrical Specifications

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Inductance Nom (µH)</th>
<th>DCR max (mOhms)</th>
<th>Leakage Inductance max (µH)</th>
<th>Input Voltage Range (V)</th>
<th>Turns Ratio</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>pri</td>
<td>sec</td>
<td>aux</td>
<td>pri : sec</td>
<td>pri : aux</td>
<td>pri</td>
</tr>
<tr>
<td>FCT1-33L2SL</td>
<td>324</td>
<td>65</td>
<td>22.5</td>
<td>460</td>
<td>0.530</td>
<td>18 – 36</td>
</tr>
<tr>
<td>FCT1-50L2SL</td>
<td>324</td>
<td>65</td>
<td>31</td>
<td>490</td>
<td>0.585</td>
<td>18 – 36</td>
</tr>
<tr>
<td>FCT1-90L2SL</td>
<td>324</td>
<td>65</td>
<td>105</td>
<td>490</td>
<td>0.570</td>
<td>18 – 36</td>
</tr>
<tr>
<td>FCT1-120L2SL</td>
<td>324</td>
<td>65</td>
<td>150</td>
<td>535</td>
<td>0.525</td>
<td>18 – 36</td>
</tr>
<tr>
<td>FCT1-150L2SL</td>
<td>324</td>
<td>65</td>
<td>223</td>
<td>470</td>
<td>0.600</td>
<td>18 – 36</td>
</tr>
</tbody>
</table>

1. When ordering, please specify a **packaging** code:
   - **FCT1-50L2SL**
     - **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 measured at 250 kHz, 0.3 Vrms, 0 Adc.
3. DCR for the secondary is measured with the windings connected in parallel.
4. Leakage inductance is for the primary and is measured with the secondary shorted.
5. Turns ratio is with the secondary windings connected in parallel.
6. Output is with the secondary windings connected in parallel. Auxiliary winding output is 10 V, 20 mA.

### Secondary windings to be connected in parallel on PC board.

![Secondary windings to be connected in parallel on PC board.](image)

### Recommended Land Pattern

- **Dimensions are in inches**: mm
  - 0.080
  - 1
  - 0.50
  - 0.098
  - 2.50

- **Recommended Land Pattern**: 0.04/0.10
  - 0.433
  - 11.00
  - 0.041
  - 1.05

- **Secondary windings to be connected in parallel on PC board.**

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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. Please check web site for latest information.