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 phosph 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 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: 200 per 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.

1. When ordering, please specify a packaging code:
   - FCT1-50L2SL
   - FCT1-90L2SL
   - FCT1-120L2SL
   - FCT1-150L2SL

   Packaging: D = 13″ machine ready reel. EIA-481 embossed plastic tape (200 parts per full reel).

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.

7. Electrical specifications at 25°C. Refer to Doc 362 “Soldering Surface Mount Components” before soldering.

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### Electrical Specifications

<table>
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<tr>
<th>Part number</th>
<th>Inductance (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>
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<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>
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<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>
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<tr>
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<td>65</td>
<td>105</td>
<td>490</td>
<td>0.570</td>
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<tr>
<td>FCT1-120L2SL</td>
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<td>65</td>
<td>150</td>
<td>535</td>
<td>0.525</td>
<td>18 – 36</td>
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<tr>
<td>FCT1-150L2SL</td>
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<td>65</td>
<td>223</td>
<td>470</td>
<td>0.600</td>
<td>18 – 36</td>
</tr>
</tbody>
</table>

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1. Recommended Land Pattern

Dimensions are in inches

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