15 W Forward Mode Transformers

- Designed for two-switch forward topology operating at 250 kHz
- Five different outputs from 3.3 V to 15 V; 36 – 75 V input
- 1500 Vrms, one minute isolation from primary and aux to the secondary

Core material  Ferrite
Terminations  RoHS tin-silver over tin over nickel over phos bronze. Other terminations available at additional cost.
Weight 6.9 – 7.1 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)
Packaging 175 per 13” reel  Plastic tape: 32 mm wide, 0.5 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 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>
</tr>
</thead>
<tbody>
<tr>
<td>FCT1-33M2SL_ 705</td>
<td>55 6.0 320</td>
<td>0.510</td>
<td>36 – 75</td>
<td>1 : 0.24</td>
<td>1 : 0.67</td>
<td>3.3 V, 4.6 A</td>
</tr>
<tr>
<td>FCT1-50M2SL_ 705</td>
<td>55 13.5 320</td>
<td>0.425</td>
<td>36 – 75</td>
<td>1 : 0.33</td>
<td>1 : 0.67</td>
<td>5.0 V, 3.0 A</td>
</tr>
<tr>
<td>FCT1-90M2SL_ 705</td>
<td>55 33.5 320</td>
<td>0.340</td>
<td>36 – 75</td>
<td>1 : 0.57</td>
<td>1 : 0.67</td>
<td>9.0 V, 1.67 A</td>
</tr>
<tr>
<td>FCT1-120M2SL_ 705</td>
<td>55 46.5 320</td>
<td>0.340</td>
<td>36 – 75</td>
<td>1 : 0.71</td>
<td>1 : 0.67</td>
<td>12 V, 1.25 A</td>
</tr>
<tr>
<td>FCT1-150M2SL_ 705</td>
<td>55 72.5 320</td>
<td>0.310</td>
<td>36 – 75</td>
<td>1 : 0.90</td>
<td>1 : 0.67</td>
<td>15 V, 1.0 A</td>
</tr>
</tbody>
</table>

1. When ordering, please specify a packaging code:

**FCT1-50M2SLD**

Packaging:  
D = 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 measured at 250 kHz, 0.5 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.