25 W Forward Mode Transformers

- Designed for forward topology operating at 250 kHz
- Three different outputs: 3.3 V, 5.0 V and 12 V
- 33 – 57 V input; excellent for PoE applications
- 1500 Vrms, one minute isolation primary and bias to secondary

Core material  Ferrite
Terminations  RoHS tin-silver over tin over nickel over phos bronze. Other terminations available at additional cost.
Weight  6.5 – 6.7 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 ref lows 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 to MIL-STD-202 Method 215 plus an additional aqueous wash. See Doc787_PCB_Washing.pdf.

1. When ordering, please specify a packaging code:
   
   FCT1-50M22SL
   
   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, 0.1 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. Bias winding output is 12 V, 20 mA.
7. Electrical specifications at 25°C.
   Refer to Doc 362 “Soldering Surface Mount Components” before soldering.

<table>
<thead>
<tr>
<th>Part number1</th>
<th>Inductance2 nom (µH)</th>
<th>DCR max (mOhms)3 pri sec bias</th>
<th>Leakage inductance4 max (µH)</th>
<th>Input voltage range (V)</th>
<th>Turns ratio5 pri : sec pri : bias</th>
<th>Output6</th>
</tr>
</thead>
<tbody>
<tr>
<td>FCT1-33M22SL_</td>
<td>95</td>
<td>115</td>
<td>8.0</td>
<td>347</td>
<td>1.44</td>
<td>33 – 57</td>
</tr>
<tr>
<td>FCT1-50M22SL_</td>
<td>95</td>
<td>144</td>
<td>18.0</td>
<td>298</td>
<td>0.880</td>
<td>33 – 57</td>
</tr>
<tr>
<td>FCT1-120M22SL_</td>
<td>95</td>
<td>150</td>
<td>62.5</td>
<td>352</td>
<td>0.725</td>
<td>33 – 57</td>
</tr>
</tbody>
</table>

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Dimensions are in inches

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