25 W Forward Mode Transformers

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).
   - **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.

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.

### Specifications

- **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.
- **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)
- **Mean Time Between Failures (MTBF) / Failures in Time (FIT)** Calculated per Telcordia SR-322 26,315,789 hours / 38 per billion hours
- **PCB washing** Tested with pure water or alcohol only. For other solvents, see Doc787_PCB_Washing.pdf.

### Part Specifications

<table>
<thead>
<tr>
<th>Part number1</th>
<th>Inductance2 nom (µH)</th>
<th>DCR max (mOhms)3</th>
<th>Leakage inductance4 max (µH)</th>
<th>Input voltage range (V)</th>
<th>Turns ratio5</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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### Recommended Land Pattern

- Dimensions are in **inches**

1. **Primary**
   - **6**
   - **7**
2. **Secondary**
   - **10**
   - **9**
3. **Bias**
   - **5**

Second winding to be connected in parallel on PC board.