### 60 W PoE Transformers

#### For Active Clamp

Forward Topology

- Designed for active clamp forward topology
- Operates at 200 kHz, with 36 – 72 Volt input
- Includes a 12-Volt auxiliary winding
- Isolation: 1500 Vrms, one minute primary and aux to secondary; 500 Vrms primary to auxiliary

**Core material** Ferrite  
**Terminations** RoHS tin-silver over tin over nickel over phos bronze. Other terminations available at additional cost.  
**Weight** 12.7 g  
**Ambient temperature** –40°C to +125°C  
**Storage temperature** Component: –40°C to +125°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** 175 per 13” reel Plastic tape: 44 mm wide, 0.4 mm thick, 32 mm pocket spacing, 11.9 mm pocket depth  
**PCB washing** Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See Doc787_PCB_Washing.pdf.

<table>
<thead>
<tr>
<th>Part number</th>
<th>Inductance</th>
<th>DCR max</th>
<th>Leakage inductance</th>
<th>Turns ratio</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>+20% (µH)</td>
<td>(mOhms)</td>
<td>max (µH)</td>
<td>pri : sec : aux</td>
<td>pri : sec : aux</td>
</tr>
<tr>
<td>POE600F-33L</td>
<td>100</td>
<td>35 : 2.30 : 185</td>
<td>0.55</td>
<td>6 : 1 : 3.5</td>
<td>3.3 V, 18.18 A</td>
</tr>
<tr>
<td>POE600F-50L</td>
<td>100</td>
<td>35 : 2.70 : 185</td>
<td>0.30</td>
<td>4 : 1 : 2.3</td>
<td>5.0 V, 12 A</td>
</tr>
<tr>
<td>POE600F-12L</td>
<td>100</td>
<td>35 : 8.00 : 156</td>
<td>0.17</td>
<td>2 : 1 : 1</td>
<td>12 V, 5.0 A</td>
</tr>
<tr>
<td>POE600F-24L</td>
<td>100</td>
<td>35 : 30 : 156</td>
<td>0.14</td>
<td>1 : 1 : 0.5</td>
<td>24 V, 2.5 A</td>
</tr>
</tbody>
</table>

1. When ordering, please specify **packaging** code:  
   
   POE600F-50LD  
   **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 for the primary, measured at 200 kHz, 0.1 Vrms, 0 Adc.
3. DCR for the primary and the secondary is measured with the windings connected in parallel.
4. Leakage inductance is for the primary and is measured with all secondary windings shorted.
5. Turns ratio is with the primary windings and the secondary windings connected in parallel.
6. Output is with the secondary windings connected in parallel.
7. Electrical specifications at 25°C.  
   Refer to Doc 362 “Soldering Surface Mount Components” before soldering.
60 W PoE Transformers — POE600F

Parts shown are preproduction products available for evaluation only.

Dimensions are in inches / mm.

Recommended Land Pattern

Dot indicates pin 1

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