POE-FD Series - PoE DC/DC Transformers

Features
- Surface mount
- Power from 25 to 60 W
- Output voltage from 5 to 12 V
- Operating temperature: -40 °C up to +105 °C
- RoHS compliant*

Applications
- VoIP phones
- WLAN APs
- Security IP cameras
- Routers
- Gateways

General Specifications
Hi-Pot
POE-FD20 and POE-FD25 (Pri-Sec).......................... 1500 Vac (60 Hz / 2 sec / 1 mA)
POE060-FD20120S (Pri-Sec).............................. 1875 Vac (60 Hz / 2 sec / 1 mA)

Moisture Sensitivity Level.............................................. 1

Specifications are subject to change without notice.
Users should verify actual device performance in their specific applications.
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WARNING  Cancer and Reproductive Harm - www.P65Warnings.ca.gov

Electrical Specifications @ 25 °C

<table>
<thead>
<tr>
<th>Bourns Part Number</th>
<th>Primary Inductance</th>
<th>Leakage Inductance</th>
<th>DCR</th>
<th>Turns ratio</th>
<th>Input Voltage</th>
<th>Switching Frequency</th>
<th>Main Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>POE025-FD20050S</td>
<td>(1,2-3,4) w/ (1,2 &amp; 3,4 shorted) @ 250 kHz / 0.5 V</td>
<td>70 µH ±10 %</td>
<td>(1,2-3,4) w/ (1,2 &amp; 3,4 &amp; 5,6 &amp; 7,8,9,10,11,12 shorted) @ 250 kHz / 0.5 V</td>
<td>0.62 µH max.</td>
<td>(1,2-3,4) w/ (1,2 &amp; 3,4 shorted)</td>
<td>75 mΩ max.</td>
<td>(1,2-3,4 : 5-6) w/ (1,2 &amp; 3,4 shorted)</td>
</tr>
<tr>
<td>POE028-FD20050S</td>
<td>(1-2) @ 250 kHz / 0.1 V</td>
<td>75 µH ±10 %</td>
<td>(7,8-9,10,11,12 shorted) @ 250 kHz / 0.1 V</td>
<td>3 µH max.</td>
<td>(1-2)</td>
<td>100 mΩ max.</td>
<td>(1-2)</td>
</tr>
<tr>
<td>POE060-FD20120S</td>
<td>(1,2-3,4) w/ (1,2 &amp; 3,4 shorted) @ 100 kHz / 0.1 V</td>
<td>100 µH ±10 %</td>
<td>(1,2-3,4) w/ (1,2 &amp; 3,4 &amp; 5,6 &amp; 7,8,9,10,11,12 shorted) @ 100 kHz / 0.1 V</td>
<td>0.35 µH max.</td>
<td>(1,2-3,4) w/ (1,2 &amp; 3,4 shorted)</td>
<td>39 mΩ max.</td>
<td>(1,2-3,4 : 5-6) w/ (1,2 &amp; 3,4 shorted)</td>
</tr>
<tr>
<td>POE050-FD25120S</td>
<td>(1-3) @ 100 kHz / 0.1 V</td>
<td>65 µH ±10 %</td>
<td>(7,8-9,10,11,12 shorted) @ 100 kHz / 0.1 V</td>
<td>750 mΩ max.</td>
<td>(1-3)</td>
<td>75 mΩ max.</td>
<td>(1-3)</td>
</tr>
</tbody>
</table>

*Model POE-FD20 and POE-FD25: Hi-Pot for PRI-SEC is 1500 Vac (60 Hz / 2 sec / 1 mA);
Model POE060-FD20120S: Hi-Pot for PRI-SEC: 1875 Vac (60 Hz / 2 sec / 1 mA)
**Soldering Profile**

The duration from room temperature (25 °C) to peak temperature is 8 minutes maximum.

**Ramp Up**

- **3 °C/s. max.**
- **60 s. ~ 120 s.**
- **150 ~ 200 °C**

**Lead-free Solder**

- **250 °C/5 °C**
- **10 s. max.**
- **60 s. ~ 150 s.**
- **217 °C**

**Cool Down**

- **6 °C/s. max.**

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**Technical Details**

- **Model:** POE
- **POE Transformer**
- **Power Rating:** 025 = 25 W
- **Core and Size:** FD20 = EFD20
- **Vout:** 050 = 5 V
- **PCB type:** S = SMD

**How To Order**

- POE 025 - FD20 050 S

**Primary windings and secondary windings to be connected in parallel on PC board.**

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Packaging Specifications

Packaging Specifications

POE050-FD25120S: 100 pcs/reel, 2 reels/carton, 200 pcs.

DIMENSIONS: MM (INCHES)

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