Shielded Power Inductors – PFL2010

- Only 1 mm high; requires a mere 3.2 mm² of board space
- Provides the current handling of much larger inductors; up to 1800 mA

Core material Composite  
Core and winding loss See www.coilcraft.com/coreloss  
Environmental RoHS compliant, halogen free

<table>
<thead>
<tr>
<th>Part number</th>
<th>Inductance² (±20% (µH))</th>
<th>DCR (mOhms)³</th>
<th>SRF typ⁴ (MHz)</th>
<th>10% drop</th>
<th>20% drop</th>
<th>30% drop</th>
<th>20°C rise</th>
<th>40°C rise</th>
</tr>
</thead>
<tbody>
<tr>
<td>PFL2010-471ME</td>
<td>0.47</td>
<td>60</td>
<td>69</td>
<td>630</td>
<td>1200</td>
<td>1600</td>
<td>1800</td>
<td>1500</td>
</tr>
<tr>
<td>PFL2010-681ME</td>
<td>0.68</td>
<td>87</td>
<td>95</td>
<td>560</td>
<td>950</td>
<td>1300</td>
<td>1500</td>
<td>1400</td>
</tr>
<tr>
<td>PFL2010-102ME</td>
<td>1.0</td>
<td>189</td>
<td>208</td>
<td>347</td>
<td>850</td>
<td>1100</td>
<td>1200</td>
<td>640</td>
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<tr>
<td>PFL2010-222ME</td>
<td>2.2</td>
<td>423</td>
<td>465</td>
<td>129</td>
<td>510</td>
<td>680</td>
<td>790</td>
<td>480</td>
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<tr>
<td>PFL2010-472ME</td>
<td>4.7</td>
<td>618</td>
<td>680</td>
<td>66</td>
<td>330</td>
<td>490</td>
<td>570</td>
<td>420</td>
</tr>
</tbody>
</table>

1. When ordering, please specify termination and packaging codes:

- PFL2010-472ME  
- Termination: E = RoHS compliant matte tin over nickel over silver. Special order, added cost:
  - Q = RoHS tin-silver-copper (95.5/4/0.5) or P = non-RoHS tin-lead (63/37).  
- Packaging: C = 7” machine-ready reel. EIA-481 embossed plastic tape (2000 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 C instead.
  - D = 13” machine-ready reel. EIA-481 embossed plastic tape. Factory order only, not stocked (7500 parts per full reel).

2. Inductance tested at 7.9 MHz, 0.1 Vrms using a Coilcraft SMD-F test fixture with an Agilent/HP 4286 impedance analyzer and Coilcraft-provided correlation pieces.
3. DCR measured using a micro-ohmmeter.
4. SRF measured using an Agilent/HP 8753D network analyzer and a Coilcraft SMD-D test fixture.
5. DC current at 25°C that causes the specified inductance drop from its value without current. Click for temperature derating information.
6. Current that causes the specified temperature rise from 25°C ambient. This information is for reference only and does not represent absolute maximum ratings. Click for temperature derating information.
7. Electrical specifications at 25°C. Refer to Doc 362 “Soldering Surface Mount Components” before soldering.
PFL2010 Series

Typical L vs Current

Graph showing the relationship between Inductance (µH) and Current (A) for different values of L.

Typical L vs Frequency

Graph showing the relationship between Inductance (µH) and Frequency (MHz) for different values of L.

Terminal wraparound: approx 0.01/0.254 both ends

Recommended Land Pattern

Dimensions are in inches/mm