Shielded Power Inductors – PFL2512

• Low cost, low profile 1008 size power inductor
• Provides current handling of much larger inductors; up to 3.5 A

**Designer’s Kit C444** contains 5 of each PFL2512 and PFL2510 value

**Core material**  Composite
**Core and winding loss**  See [www.coilcraft.com/coreloss](http://www.coilcraft.com/coreloss)
**Environmental**  RoHS compliant, halogen free

**Terminations**  RoHS compliant matte tin over nickel over silver-platinum-glass frit. Other terminations available at additional cost.

**Weight**  21.2 mg

**Ambient temperature**  –40°C to +85°C with (40°C rise) 
**Maximum part temperature**  +125°C (ambient + temp rise).  [Derating](#)
**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**  2000/7” reel; 7500/13 ” reel. Plastic tape: 8 mm wide, 0.23 mm thick, 4 mm pocket spacing, 1.32 mm pocket depth

**PCB washing**  Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See [Doc787_PCB_Washing.pdf](http://www.coilcraft.com/coreloss).

<table>
<thead>
<tr>
<th>Part number</th>
<th>Inductance(^2) ≤20% (µH)</th>
<th>DCR (mOhms)(^3) typ max</th>
<th>SRF typ(^4) (MHz)</th>
<th>Isat (mA)(^5) 10% drop 20% drop 30% drop</th>
<th>I rms (mA)(^6) 20°C rise 40°C rise</th>
</tr>
</thead>
<tbody>
<tr>
<td>PFL2512-681ME</td>
<td>0.68</td>
<td>64</td>
<td>80</td>
<td>550</td>
<td>1700 2200</td>
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<tr>
<td>PFL2512-102ME</td>
<td>1.0</td>
<td>80</td>
<td>92</td>
<td>375</td>
<td>1300 1700</td>
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<tr>
<td>PFL2512-152ME</td>
<td>1.5</td>
<td>160</td>
<td>185</td>
<td>300</td>
<td>900 1200</td>
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<tr>
<td>PFL2512-222ME</td>
<td>2.2</td>
<td>240</td>
<td>270</td>
<td>225</td>
<td>760 1000</td>
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<tr>
<td>PFL2512-332ME</td>
<td>3.3</td>
<td>480</td>
<td>540</td>
<td>200</td>
<td>430 570</td>
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<tr>
<td>PFL2512-472ME</td>
<td>4.7</td>
<td>770</td>
<td>850</td>
<td>185</td>
<td></td>
</tr>
</tbody>
</table>

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

PFL2512-472ME\(^C\)

**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-A 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.
PFL2512 Series

L vs Current

L vs Frequency

Terminal wraparound: approx 0.01/0.254 both ends

Recommended Land Pattern

Dimensions are in inches/mm

RoHS Compliant
Halogen Free

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This product may not be used in medical or high risk applications without prior Coilcraft approval.
Specification subject to change without notice.
Please check web site for latest information.

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