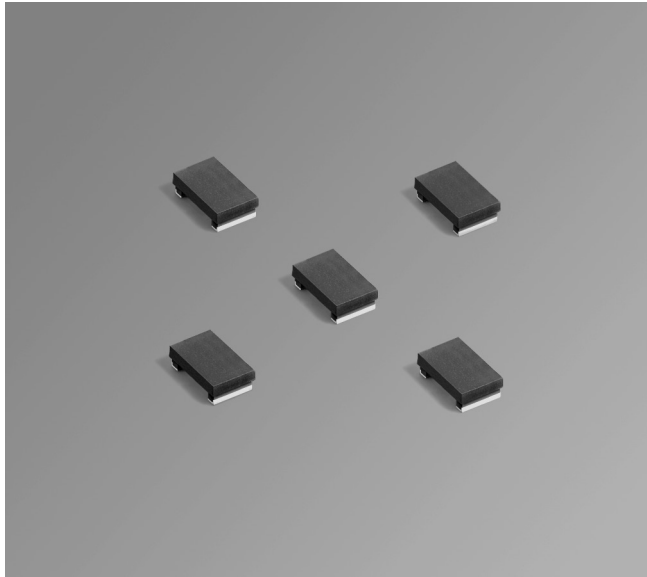


Shielded Power Inductors – PFL2510



- Low cost, low profile 1008 size power inductor
- Provides current handling of much larger inductors; up to 4.1 A

Designer's Kit C444 contains 5 of each value and 5 of each PFL2512

Environmental RoHS compliant, halogen free

Core material Composite

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

Weight 17.7 mg

Ambient temperature -40°C to $+85^{\circ}\text{C}$ with $(40^{\circ}\text{C}$ rise) Irms current.

Maximum part temperature $+125^{\circ}\text{C}$ (ambient + temp rise). **Derating**

Storage temperature Component: -40°C to $+125^{\circ}\text{C}$.

Tape and reel packaging: -40°C to $+80^{\circ}\text{C}$

Resistance to soldering heat Max three 40 second reflows at $+260^{\circ}\text{C}$, parts cooled to room temperature between cycles

Moisture Sensitivity Level (MSL) 1 (unlimited floor life at $<30^{\circ}\text{C}$ / 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](#).

| Part number ¹ | Inductance ² $\pm 20\%$ (μH) | DCR (mOhms) ³ | | SRF typ ⁴ (MHz) | Isat (mA) ⁵ | | | Irms (mA) ⁶ | |
|--------------------------|---|--------------------------|-----|-------------------------------|------------------------|----------|----------|------------------------|-----------|
| | | typ | max | | 10% drop | 20% drop | 30% drop | 20°C rise | 40°C rise |
| PFL2510-151ME_ | 0.15 | 27 | 36 | 970 | 3400 | 3900 | 4100 | 2200 | 2900 |
| PFL2510-221ME_ | 0.22 | 37 | 47 | 815 | 2900 | 3300 | 3400 | 1800 | 2500 |
| PFL2510-681ME_ | 0.68 | 60 | 70 | 500 | 1300 | 1900 | 2300 | 1400 | 1800 |
| PFL2510-102ME_ | 1.0 | 72 | 83 | 375 | 1300 | 1600 | 1800 | 1400 | 1900 |
| PFL2510-222ME_ | 2.2 | 195 | 240 | 310 | 850 | 1100 | 1300 | 830 | 1100 |
| PFL2510-332ME_ | 3.3 | 490 | 590 | 245 | 700 | 890 | 990 | 530 | 710 |
| PFL2510-472ME_ | 4.7 | 760 | 900 | 175 | 660 | 830 | 890 | 430 | 580 |

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

PFL2510-472ME**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 an inductance drop of 30% (typ) 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.



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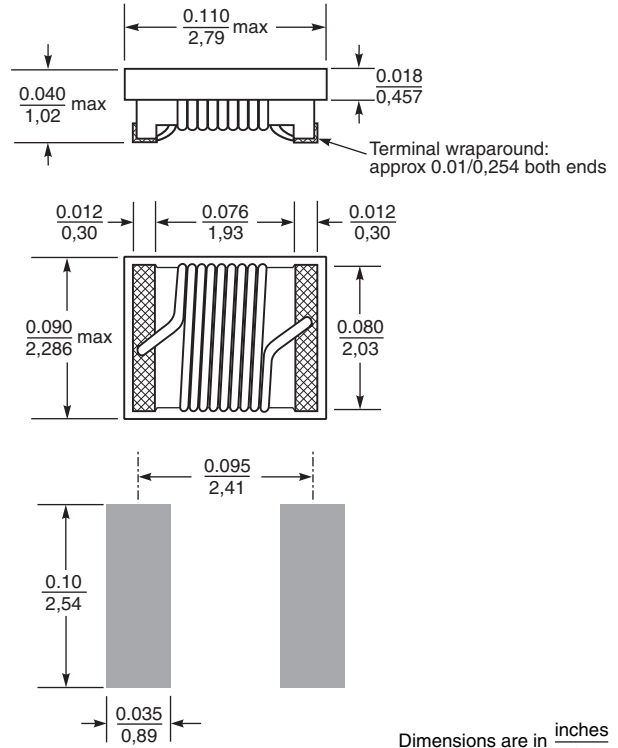
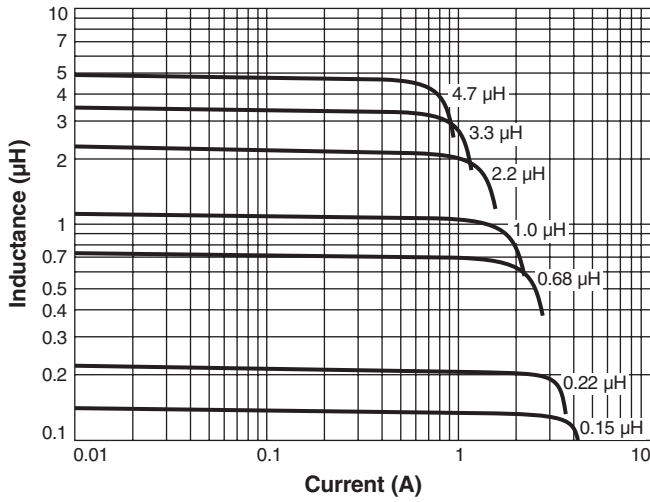
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PFL2510 Series

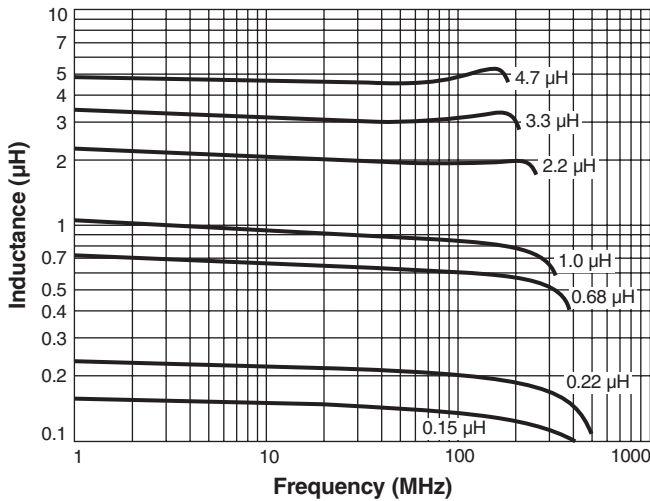
Typical L vs Current



Dimensions are in $\frac{\text{inches}}{\text{mm}}$

Recommended Land Pattern

Typical L vs Frequency



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