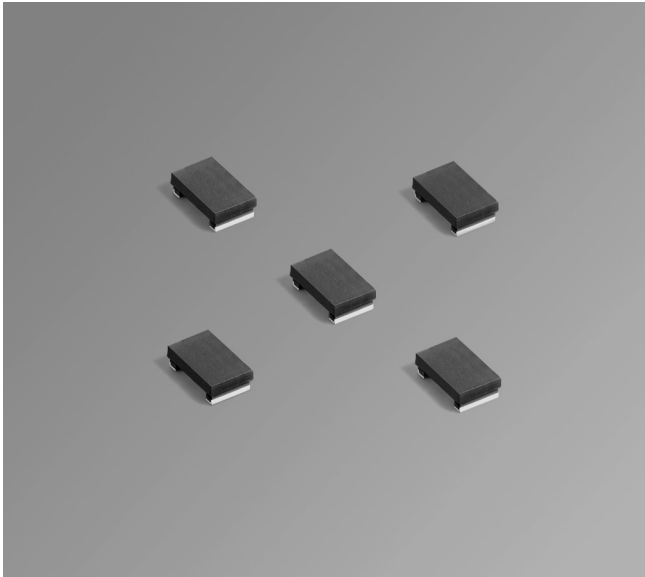


Shielded Power Inductors – PFL2512



- 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

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) Irms current.

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](#).

| Part number ¹ | Inductance ² ±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 |
| PFL2512-681ME_ | 0.68 | 64 | 80 | 550 | 2100 | 3100 | 3500 | 1700 | 2200 |
| PFL2512-102ME_ | 1.0 | 80 | 92 | 375 | 1600 | 2600 | 2900 | 1300 | 1700 |
| PFL2512-152ME_ | 1.5 | 160 | 185 | 300 | 1400 | 1900 | 2000 | 900 | 1200 |
| PFL2512-222ME_ | 2.2 | 240 | 270 | 225 | 870 | 1400 | 1700 | 760 | 1000 |
| PFL2512-332ME_ | 3.3 | 480 | 540 | 200 | 850 | 1200 | 1400 | 600 | 780 |
| PFL2512-472ME_ | 4.7 | 770 | 850 | 185 | 830 | 1100 | 1200 | 430 | 570 |

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.



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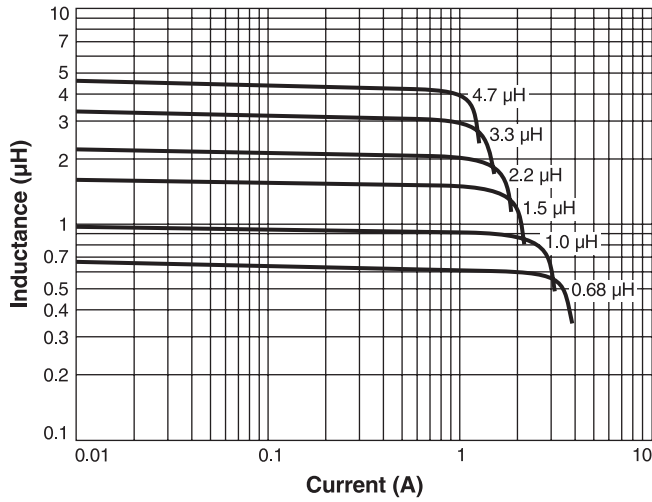
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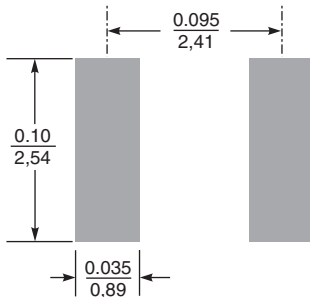
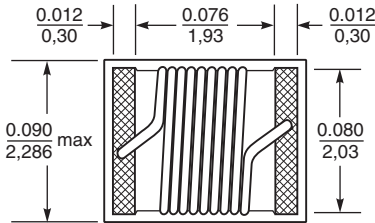
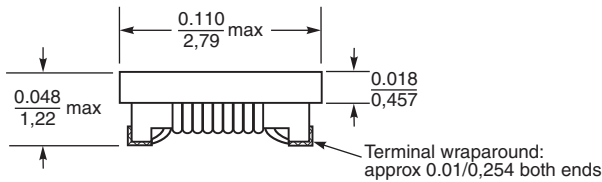
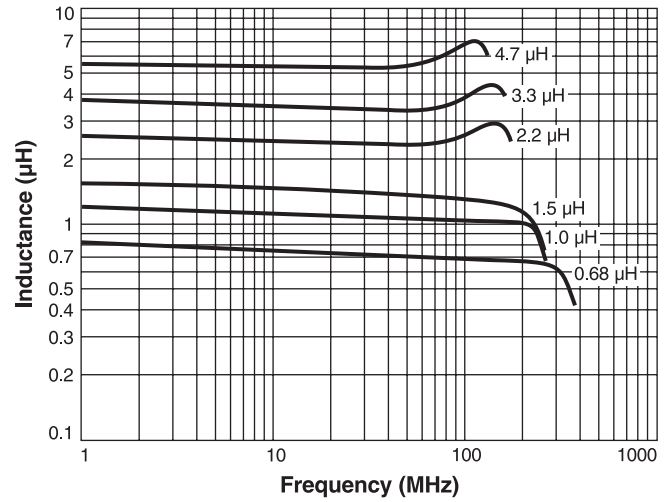


PFL2512 Series

L vs Current



L vs Frequency



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

Recommended Land Pattern



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