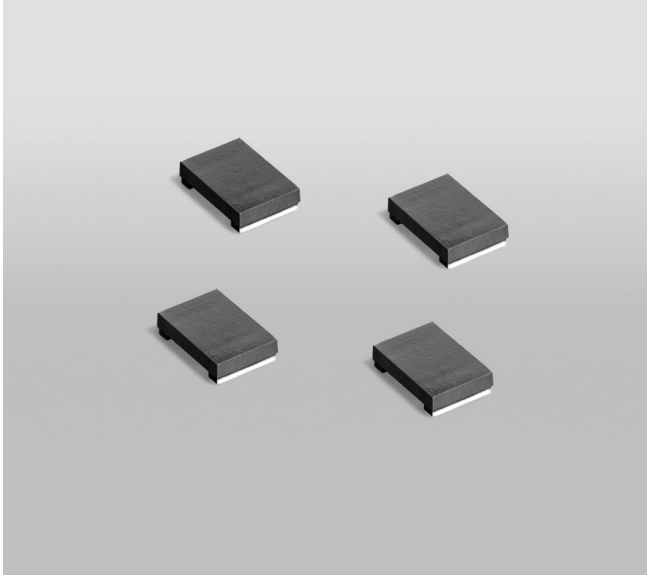


Shielded Power Inductors – PFL4514



- Low cost, low profile miniature power inductor
- Only 1.4 mm high; requires a mere 16 mm² of board space
- Provides current handling of much larger inductors; up to 4.2 A.

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 73.5 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)

Packaging 1000/7" reel; 5000/13" reel. Plastic tape: 12 mm wide, 0.21 mm thick, 8 mm pocket spacing, 1.65 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 (A) ⁵			Irms (A) ⁶	
		typ	max		10% drop	20% drop	30% drop	20°C rise	40°C rise
PFL4514-102ME_	1.0	80	96	300	2.8	3.8	4.2	1.5	2.0
PFL4514-222ME_	2.2	115	135	240	1.8	2.6	3.0	1.2	1.5
PFL4514-472ME_	4.7	220	260	180	1.4	1.9	2.1	0.89	1.2
PFL4514-682ME_	6.8	400	480	170	1.1	1.5	1.7	0.86	1.2
PFL4514-103ME_	10	680	800	140	0.97	1.2	1.4	0.49	0.67
PFL4514-153ME_	15	1140	1350	110	0.77	0.99	1.1	0.44	0.58
PFL4514-223ME_	22	2330	2750	75	0.59	0.74	0.79	0.31	0.41

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

PFL4514-223ME**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 (1000 parts per full reel). Quantities less than full reel available: in tape (not machine ready) or with leader and trailer (\$25 charge).

D = 13" machine-ready reel. EIA-481 embossed plastic tape. Factory order only, not stocked (5000 parts per full reel).

B = Less than full reel. In an effort to simplify our part numbering system, Coilcraft is eliminating the need for multiple packaging codes. When ordering, simply change the last letter of your part number from B to C.

2. Inductance tested at 100 kHz, 0.1 Vrms, 0 Adc.

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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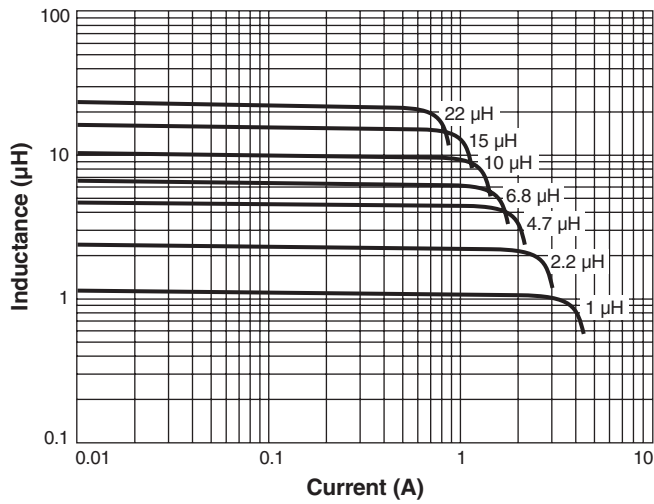
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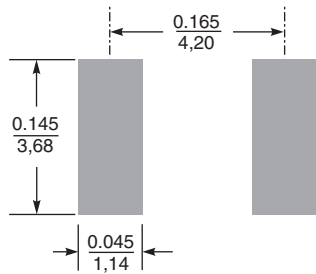
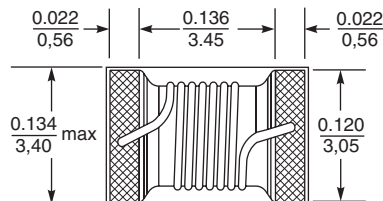
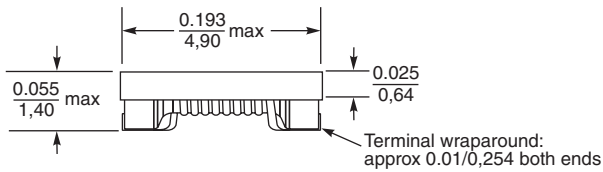
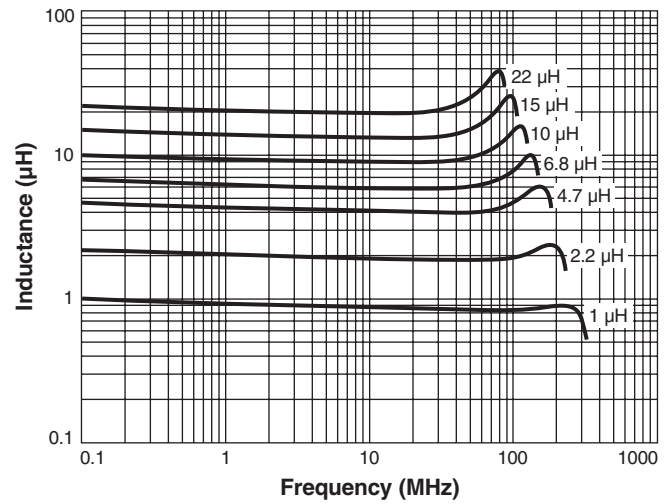


PFL4514 Series

L vs Current



L vs Frequency



Recommended Land Pattern

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



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