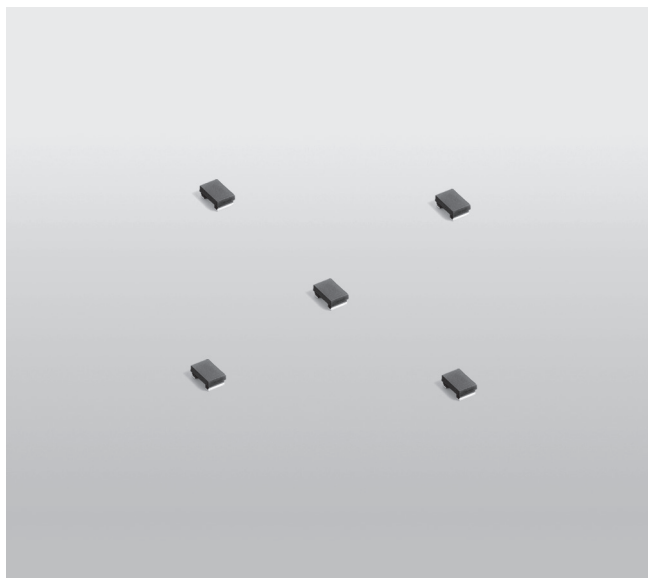


**NEW!**

# Shielded Power Inductors – PFL1005



Continuing in our long tradition of innovation and leadership, Coilcraft introduces the industry's first true 0402 size shielded power inductor.

**Core material** Composite

**Weight** 0.63 – 0.70 mg

**Environmental** RoHS compliant, halogen free

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

**Ambient temperature** –40°C to +85°C with I<sub>rms</sub> current, +85°C to +125°C with derated current

**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 per 7" reel Paper tape: 8 mm wide, 0.68 mm thick, 2 mm pocket spacing

**PCB washing** Only pure water or alcohol recommended

Part number <sup>1</sup>	Inductance <sup>2</sup> ±20% (nH)	DCR (Ohms) <sup>3</sup>		SRF typ <sup>4</sup> (MHz)	Isat (mA) <sup>5</sup>			I <sub>rms</sub> (mA) <sup>6</sup>	
		typ	max		10% drop	20% drop	30% drop	20°C rise	40°C rise
PFL1005-36NMR_	36	0.034	0.043	2500	1500	2400	2800	1400	2000
PFL1005-101MR_	100	0.059	0.075	2200	1000	1500	1900	1100	1500
PFL1005-181MR_	180	0.19	0.21	1250	700	880	1100	900	1200
PFL1005-271MR_	270	0.22	0.24	920	450	650	740	700	910
PFL1005-391MR_	390	0.45	0.51	770	380	510	550	450	570
PFL1005-561MR_	560	0.48	0.54	620	300	440	490	410	530
PFL1005-721MR_	720	0.62	0.68	560	280	400	450	370	470
PFL1005-102MR_	1000	0.97	1.08	460	270	350	380	310	400

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

**PFL1005-102MRW**

**Packaging:** **W** = 7" machine-ready reel. EIA-481 punched paper tape (2000 parts per full reel).

**U** = Less than full reel. In tape, but not machine ready. To have a leader and trailer added (\$25 charge), use code letter W instead.

2. Inductance tested at 7.9 MHz, 0.1 V<sub>rms</sub> using a Coilcraft SMD-F test fixture and Coilcraft-provided correlation pieces with an Agilent/HP 4286 impedance analyzer.

3. DCR measured on a micro-ohmmeter.

4. SRF measured using an Agilent/HP 8753D network analyzer and a Coilcraft SMD-D test fixture.

5. DC current that causes the specified inductance drop from its value without current.

6. Current that causes the specified temperature rise from 25°C ambient.

7. Electrical specifications at 25°C.

Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

**COILCRAFT** ACCURATE  
**PRECISION** REPEATABLE  
MEASUREMENTS  
SEE WEB SITE **TEST FIXTURES**



www.coilcraft.com

**US** +1-847-639-6400 sales@coilcraft.com

**UK** +44-1236-730595 sales@coilcraft-europe.com

**Taiwan** +886-2-2264 3646 sales@coilcraft.com.tw

**China** +86-21-6218 8074 sales@coilcraft.com.cn

**Singapore** + 65-6484 8412 sales@coilcraft.com.sg

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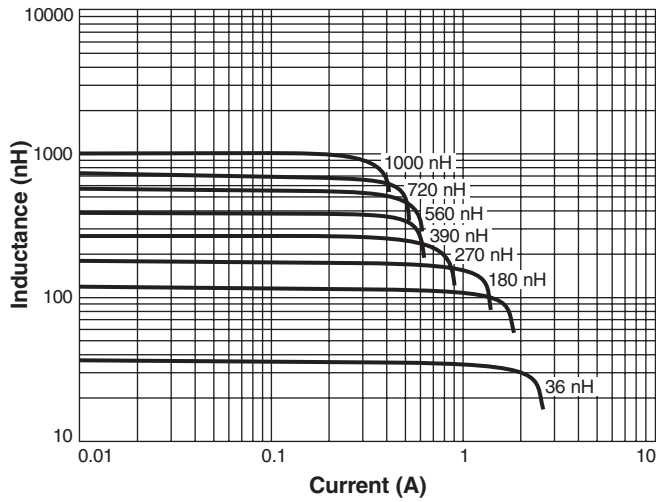
This product may not be used in medical of high risk applications without prior Coilcraft approval. Specification subject to change without notice. Please check out web site for latest information.



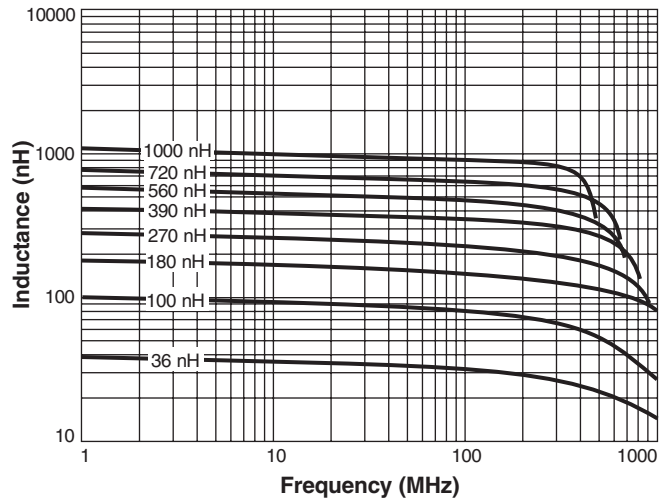
**NEW!**

# PFL1005 Series (0402)

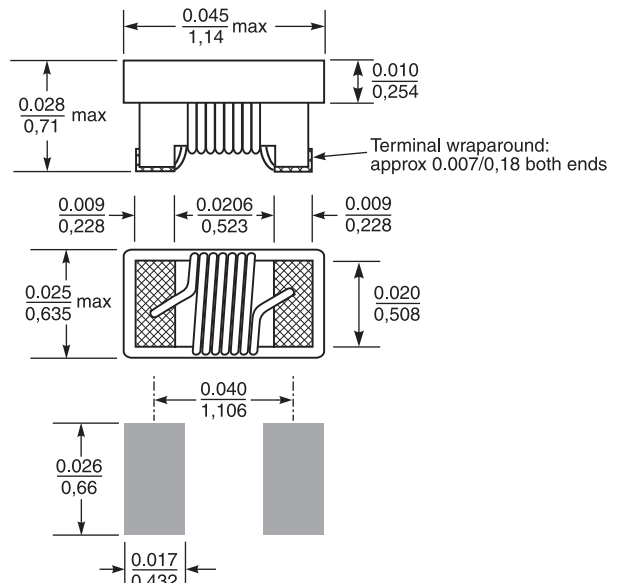
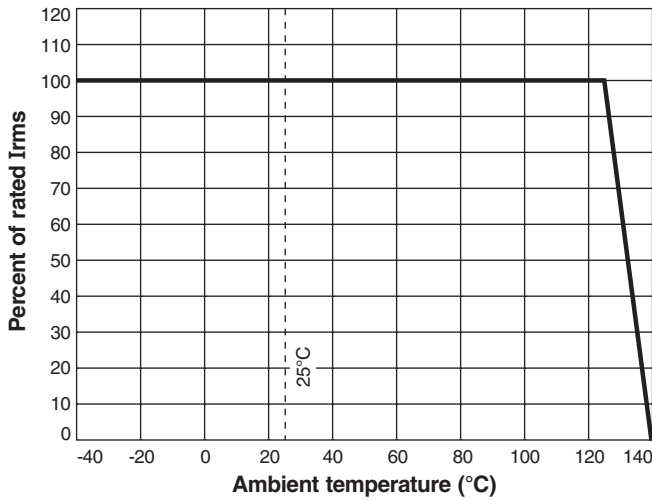
## Typical L vs Current



## Typical L vs Frequency



## Irms Derating



**Recommended Land Pattern**

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



**US** +1-847-639-6400 sales@coilcraft.com  
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**Taiwan** +886-2-2264 3646 sales@coilcraft.com.tw  
**China** +86-21-6218 8074 sales@coilcraft.com.cn  
**Singapore** + 65-6484 8412 sales@coilcraft.com.sg

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