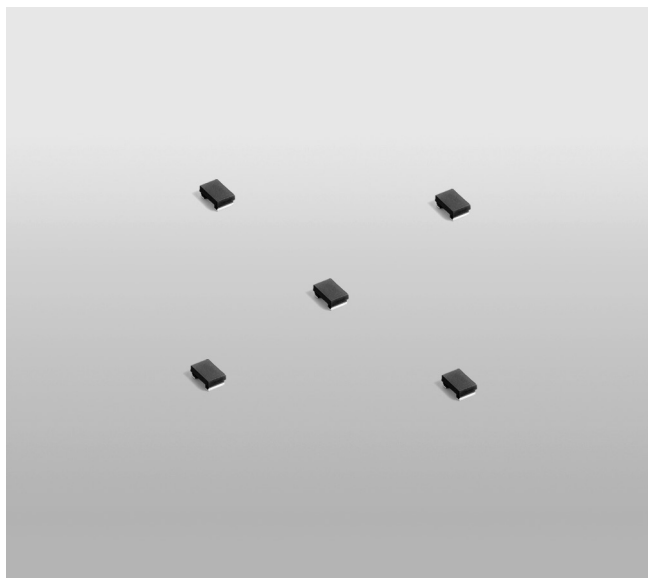


Shielded Power Inductors – PFL1005



- Smallest power inductor – only 0.71 mm high, 1.14 x 0.635 mm footprint
- Handles current up to 2800 mAmps
- AEC-Q200 Grade 1 (–40°C to +125°C ambient)

Core material Composite

Core and winding loss See www.coilcraft.com/coreloss

Weight 1.3 – 1.8 mg

Environmental RoHS compliant, halogen free

Terminations RoHS compliant matte tin over nickel over silver-palladium-glass frit.

Ambient temperature –40°C to +125°C.

Maximum part temperature +140°C (ambient + temp rise). [Derating](#).

Storage temperature Component: –40°C to +140°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

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% (nH)	DCR (Ohms) 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
PFL1005-18NMR_	18	0.032	0.042	3400	2000	2500	2600	1400	2000
PFL1005-36NMR_	36	0.034	0.043	2500	1500	2400	2800	1400	2000
PFL1005-60NMR_	60	0.042	0.050	2100	1300	1900	2100	1200	1600
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 Vrms 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 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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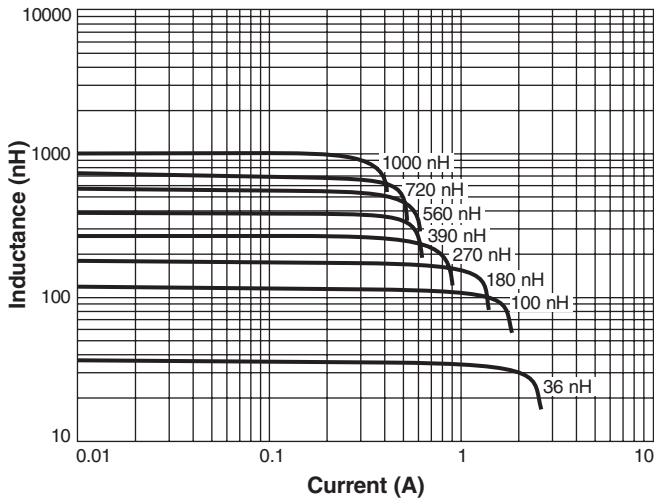
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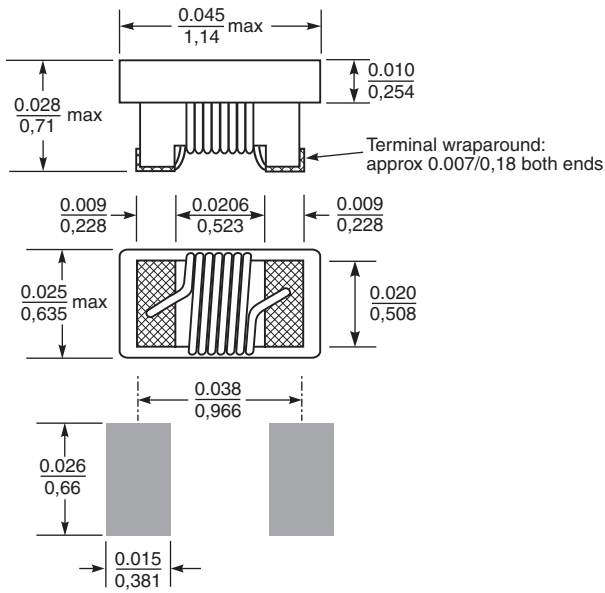
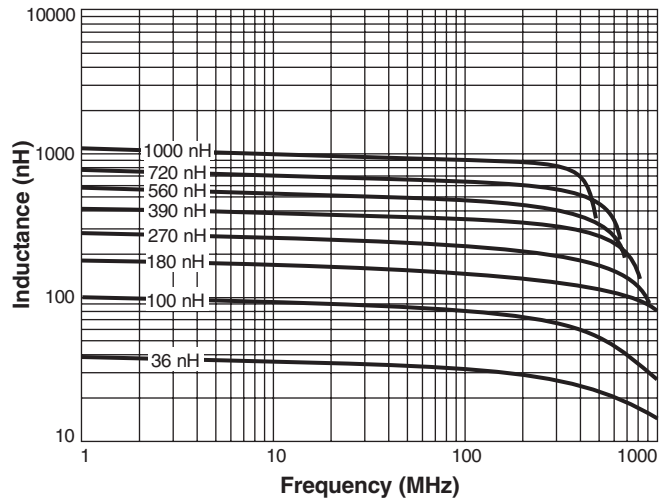


PFL1005 Series (0402)

Typical L vs Current



Typical L vs Frequency



Recommended Land Pattern

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

Packaging 2000 per 7" reel Paper tape: 8 mm wide, 0.68 mm thick, 2 mm pocket spacing



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