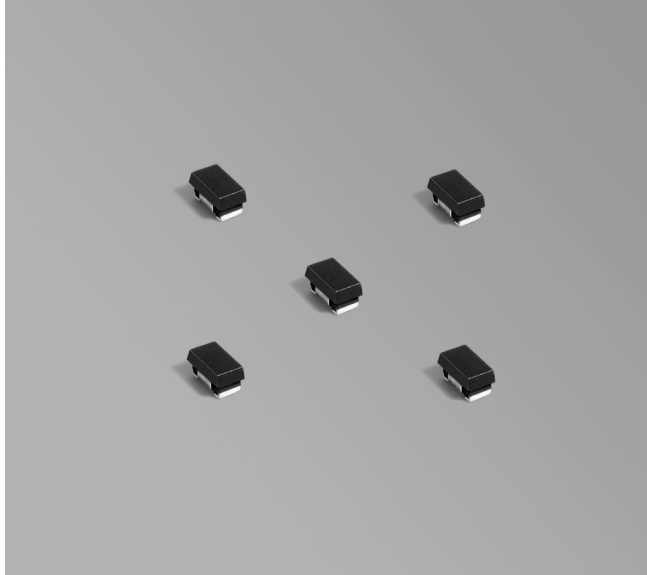


# Shielded Power Inductors – PFL1609



- Low cost, low profile 0603 size power inductor
- Less than 1 mm high; requires less than 2 mm<sup>2</sup> of board space
- Lower DCR than other parts this size

**Designer's Kit C433** contains 20 of each PFL1609 and PFL2010 value  
**Core material** Composite

**Core and winding loss** See [www.coilcraft.com/coreloss](http://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** 7.9 – 8.3 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 per 7" reel Paper tape: 8 mm wide, 1.0 mm thick, 2 mm pocket spacing

**PCB washing** Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See [Doc787\\_PCB\\_Washing.pdf](http://Doc787_PCB_Washing.pdf).

Part number <sup>1</sup>	Inductance <sup>2</sup> ±20% (µH)	DCR (mOhms) <sup>3</sup>		SRF typ <sup>4</sup> (MHz)	Isat (mA) <sup>5</sup>			Irms (mA) <sup>6</sup>	
		typ	max		10% drop	20% drop	30% drop	20°C rise	40°C rise
PFL1609-471ME_	0.47	83	100	650	760	990	1200	1000	1300
PFL1609-561ME_	0.56	110	130	600	710	920	1100	1100	1400
PFL1609-681ME_	0.68	145	170	520	610	780	900	1100	1400
PFL1609-102ME_	1.0	200	230	445	480	690	760	650	850
PFL1609-222ME_	2.2	410	470	130	300	390	470	480	630
PFL1609-472ME_	4.7	620	700	60	240	300	370	380	500
PFL1609-682ME_	6.8	1000	1200	40	170	230	260	330	440
PFL1609-103ME_	10	1200	1400	35	130	185	215	320	420

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

**PFL1609-472MEW**

**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.

- Inductance tested at 7.9 MHz, 0.1 Vrms using a Coilcraft SMD-F test fixture with an Agilent/HP 4286A impedance analyzer and Coilcraft-provided correlation pieces.
- DCR measured using a micro-ohmmeter.
- SRF measured using an Agilent/HP 8753D network analyzer and a Coilcraft SMD-D test fixture.
- DC current at 25°C that causes the specified inductance drop from its value without current. [Click for temperature derating information.](#)
- 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.](#)
- Electrical specifications at 25°C.

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



[www.coilcraft.com](http://www.coilcraft.com)

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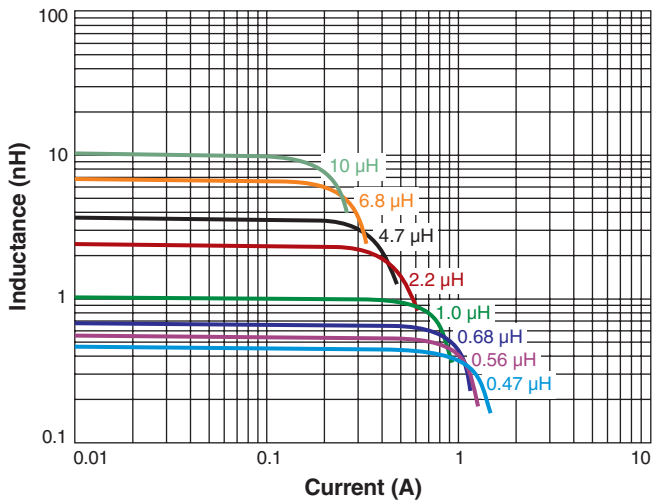
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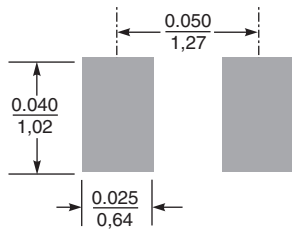
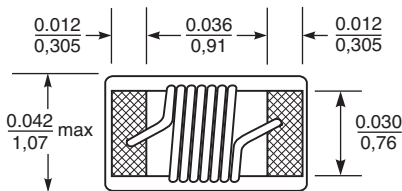
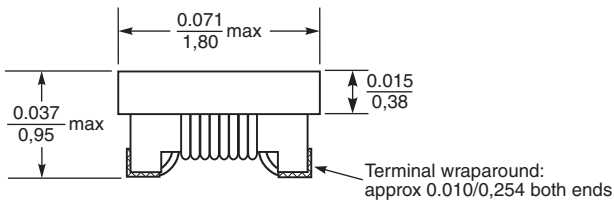
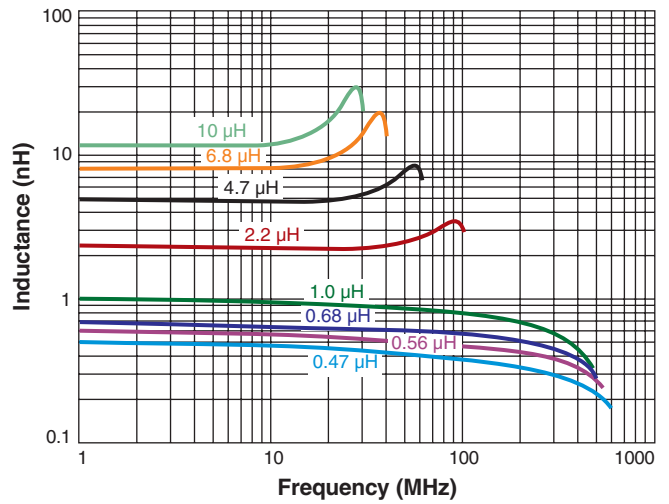


# PFL1609 Series

## L vs Current



## L vs Frequency



**Recommended Land Pattern**

Dimensions are in inches/mm



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

Document 875-2 Revised 10/09/17

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[MLZ1608M150WTD25](#) [MLZ1608M3R3WTD25](#) [MLZ1608M3R3WT000](#) [MLZ1608M150WT000](#) [MLZ1608A1R5WT000](#)

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[62892NL](#) [PE-92100NL](#) [PG0434.801NLT](#) [PG0936.113NLT](#) [PM06-2N7](#) [PM06-39NJ](#) [HC2LP-R47-R](#) [HC2-R47-R](#) [HC3-2R2-R](#) [HC8-1R2-R](#)