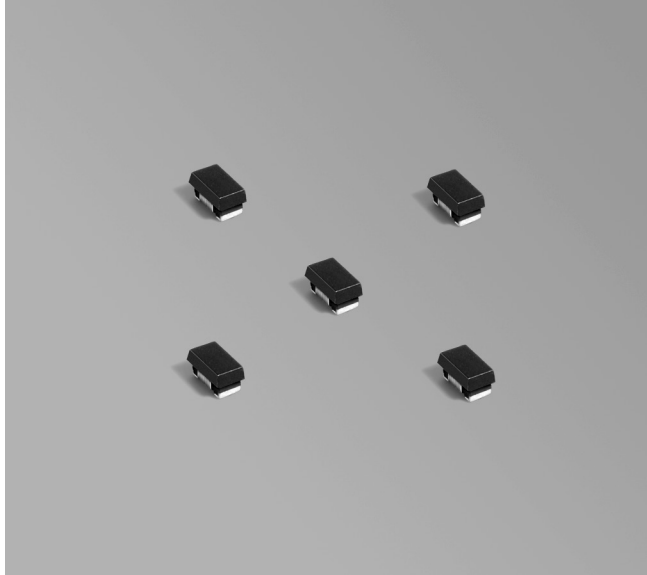


Shielded Power Inductors – PFL1609



- Low cost, low profile 0603 size power inductor
- Less than 1 mm high; requires less than 2 mm² of board space
- Lower DCR than other parts this size
- AEC-Q200 Grade 1 qualified (–40°C to +125°C ambient)

Designer's Kit C433 contains 20 of each PFL1609 and PFL2010 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 7.9 – 8.3 mg

Ambient temperature –40°C to +125°C.

Maximum part temperature +140°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

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
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.



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Document 875-1 Revised 07/26/19

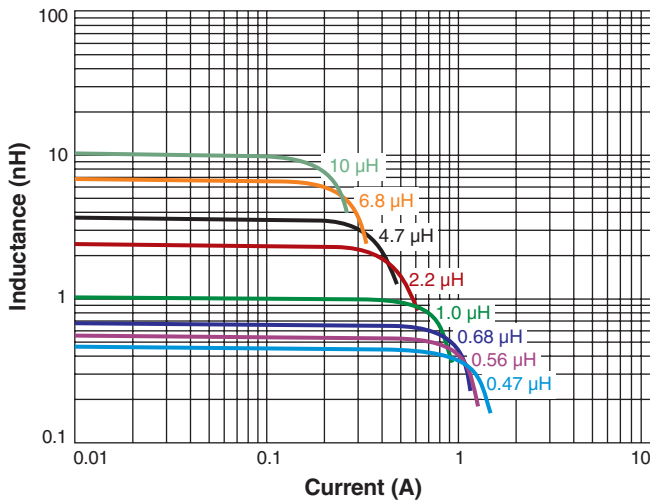
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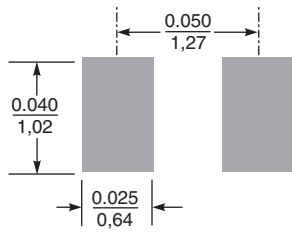
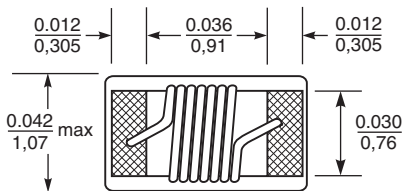
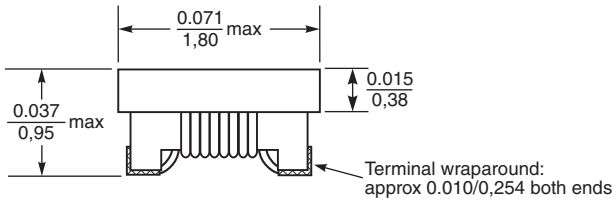
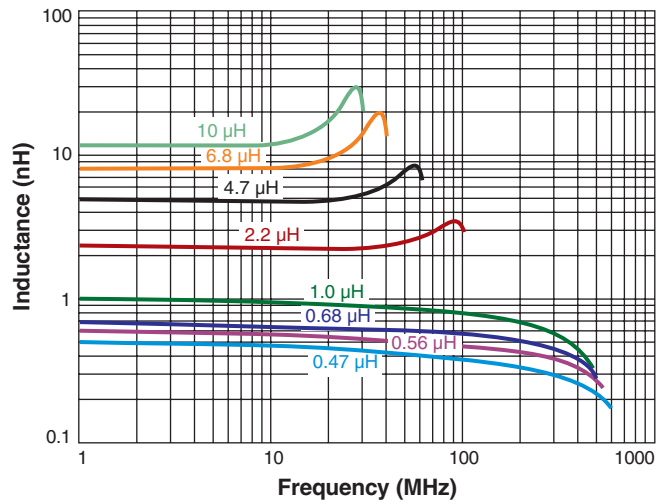


PFL1609 Series

L vs Current



L vs Frequency



Dimensions are in inches
mm

Recommended Land Pattern

Packaging 2000 per 7" reel Paper tape: 8 mm wide, 1.0 mm thick, 2 mm pocket spacing



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