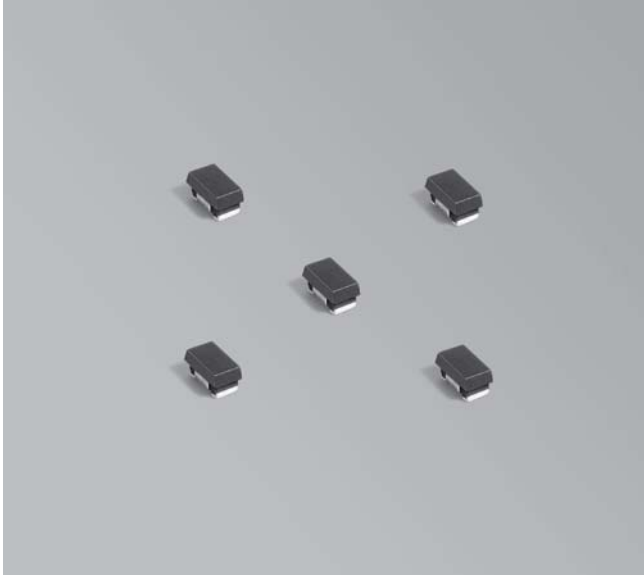


**NEW!**

# Shielded Power Inductors – PFL1610



- Low cost, low profile 0603 size power inductor
- Only 1 mm high, and requires less than 2 mm<sup>2</sup> of board space
- Provides the current handling of much larger inductors; up to 2350 mA.

**Designer's Kit C433** contains 20 each of all values

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

**Weight** 5.4 – 5.7 mg

**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.  
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, 1.68 mm thick, 2 mm pocket spacing

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

Part number <sup>1</sup>	Inductance <sup>2</sup> ±20% (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
PFL1610-331ME_	0.33	85	98	644	1140	1860	2350	1100	1500
PFL1610-471ME_	0.47	183	205	540	1000	1700	1820	770	1000
PFL1610-681ME_	0.68	203	223	423	800	1500	1630	720	970
PFL1610-102ME_	1.0	331	365	351	650	1000	1260	570	750

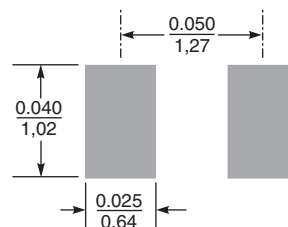
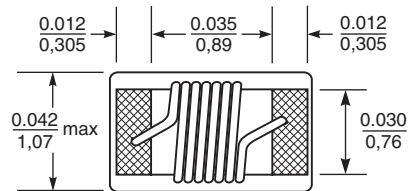
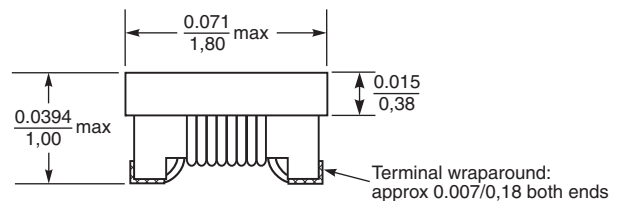
1. When ordering, please specify **packaging** codes:

**PFL1610-102ME W**

**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 V<sub>rms</sub> using a Coilcraft SMD-F test fixture with an Agilent/HP 4286 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 which the inductance drops the specified amount from its value without current.
  - Current that causes the specified temperature rise from 25°C ambient.
  - Electrical specifications at 25°C.
- Refer to Doc 362 "Soldering Surface Mount Components" before soldering.



**Recommended  
Land Pattern**

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

# Coilcraft®

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Please check our website for latest information.

Document 753-1 Revised 12/14/09

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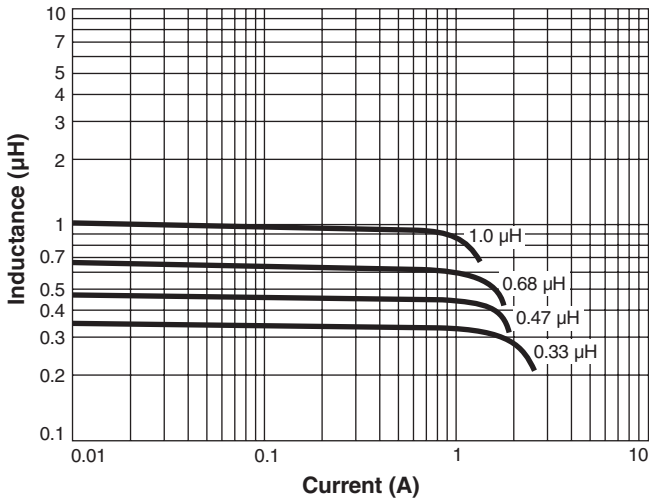
E-mail [info@coilcraft.com](mailto:info@coilcraft.com) Web <http://www.coilcraft.com>



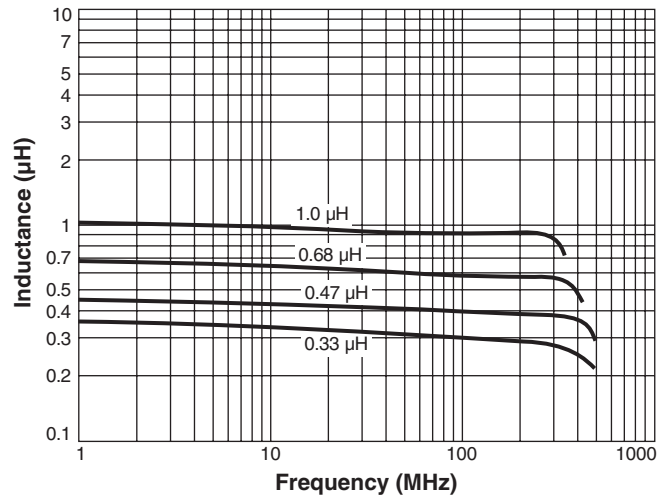
**NEW!**

# PFL1610 Series

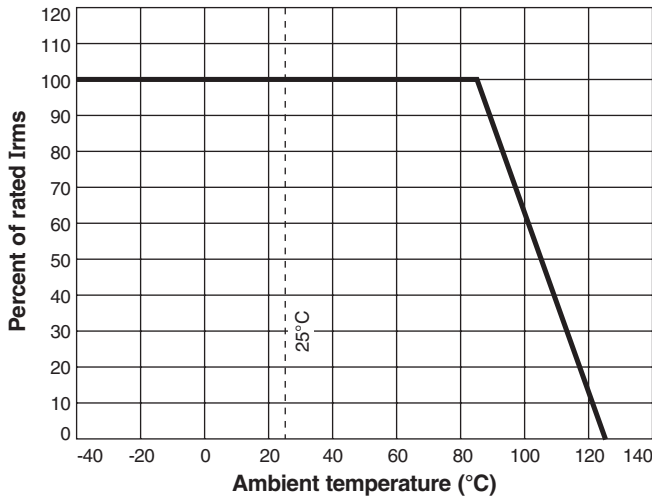
## L vs Current



## L vs Frequency



## Irms Derating



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Document 753-2 Revised 12/14/09

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**PRECISION** REPEATABLE  
MEASUREMENTS  
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