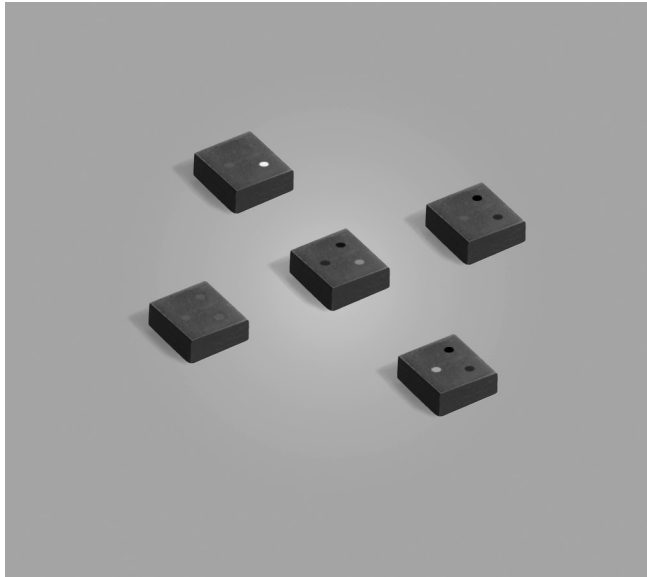


# Shielded Power Inductors – EPL3010



- Low profile shielded power inductors, 3 × 3 × 1 mm
- Extremely low DCR, high SRF ratings, Isat ratings up to 2.2 A

**Designer's Kit C431** contains 5 each of all values

**Core material** Ferrite

**Core and winding loss** See [www.coilcraft.com/coreloss](http://www.coilcraft.com/coreloss)

**Environmental** RoHS compliant, halogen free

**Terminations** RoHS compliant tin-silver-copper (96.5/3/0.5) over tin over nickel over silver-platinum. Other terminations available at additional cost.

**Weight** 32 – 38 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)

**Packaging** 2000/7" reel; 7500/13" reel; Plastic tape: 8 mm wide, 0.20 mm thick, 4 mm pocket spacing, 1.14 mm pocket depth

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

Part number <sup>1</sup>	Inductance <sup>2</sup> ±20% (µH)	DCR nom <sup>3</sup> (Ohms)	DCR max <sup>3</sup> (Ohms)	SRF typ <sup>4</sup> (MHz)	Isat (A) <sup>5</sup>			Irms (A) <sup>6</sup>	
					10% drop	20% drop	30% drop	20°C rise	40°C rise
EPL3010-301ML_	0.30	0.040	0.045	249	1.0	1.6	2.2	1.7	2.2
EPL3010-102ML_	1.0	0.071	0.078	151	0.80	1.3	1.8	1.2	1.7
EPL3010-152ML_	1.5	0.086	0.095	116	0.68	1.1	1.6	1.2	1.6
EPL3010-222ML_	2.2	0.137	0.150	98	0.54	0.92	1.3	0.98	1.3
EPL3010-472ML_	4.7	0.278	0.306	60	0.36	0.61	0.80	0.74	0.99
EPL3010-103ML_	10	0.573	0.631	38	0.20	0.34	0.48	0.52	0.70
EPL3010-223ML_	22	1.25	1.38	27	0.18	0.30	0.42	0.35	0.47

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

**EPL3010-223MLC**

**Packaging:** **C** = 7" machine-ready reel. EIA-481 embossed plastic tape (2000 parts per full reel).

**D** = 13" machine-ready reel. EIA-481 embossed plastic tape. Factory order only, not stocked (7500 parts per full reel). Quantities less than full reel available: in tape (not machine ready) or with leader and trailer (\$25 charge).

**B** = Less than full reel. In an effort to simplify our part numbering system, Coilcraft is eliminating the need for multiple packaging codes. When ordering, simply change the last letter of your part number from B to C.

2. Inductance tested at 1 MHz, 0.1 Vrms, 0 Adc.

3. DCR measured on a micro-ohmmeter.

4. SRF measured using Agilent/HP 4395A network analyzer or equivalent.

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.



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

**US** +1-847-639-6400 [sales@coilcraft.com](mailto:sales@coilcraft.com)

**UK** +44-1236-730595 [sales@coilcraft-europe.com](mailto:sales@coilcraft-europe.com)

**Taiwan** +886-2-2264 3646 [sales@coilcraft.com.tw](mailto:sales@coilcraft.com.tw)

**China** +86-21-6218 8074 [sales@coilcraft.com.cn](mailto:sales@coilcraft.com.cn)

**Singapore** + 65-6484 8412 [sales@coilcraft.com.sg](mailto:sales@coilcraft.com.sg)

Document 615-1 Revised 12/29/21

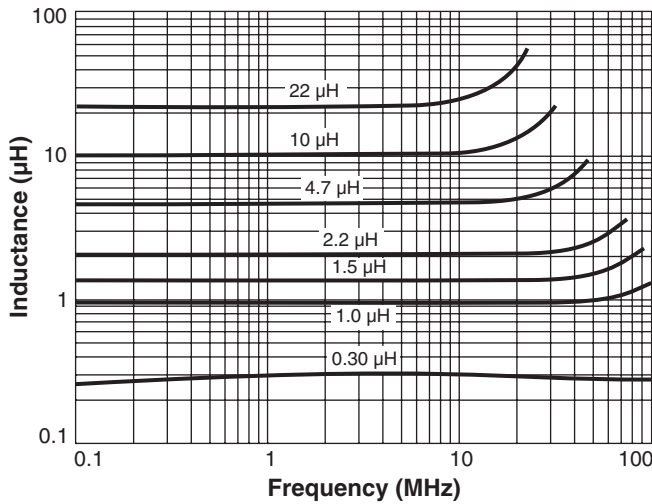
© Coilcraft Inc. 2021

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

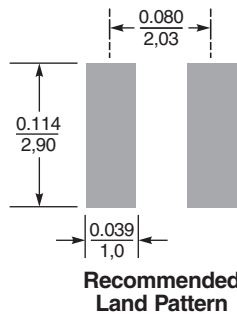
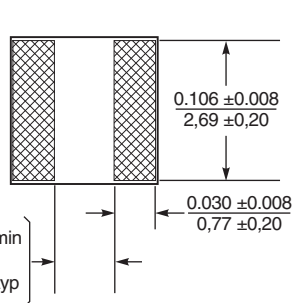
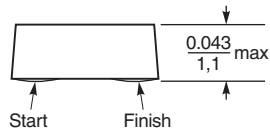
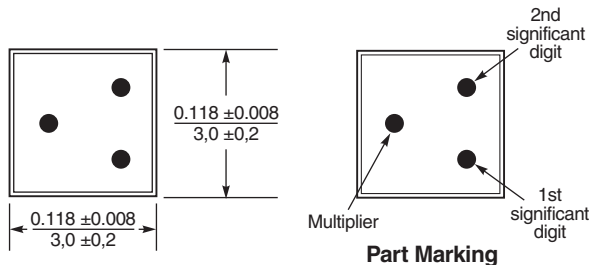
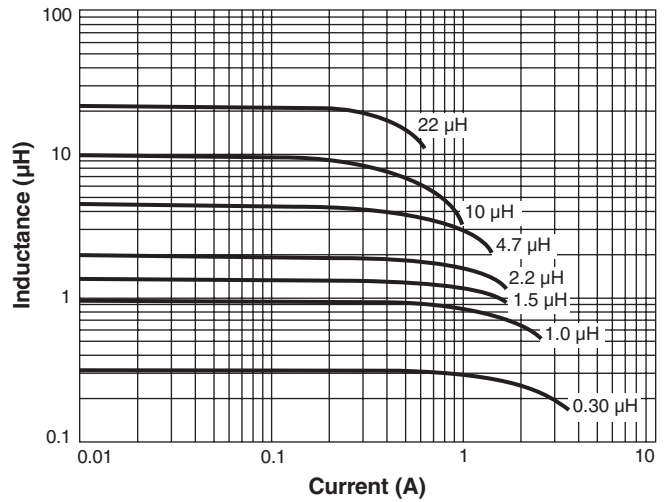


# SMT Power Inductors – EPL3010 Series

## L vs Frequency



## L vs Current



## Part Marking (Parts manufactured prior to Oct. 20, 2009 may not be marked.)

Part number	Value	1st digit	2nd digit	Multiplier
EPL3010-301	0.27 µH	Orange	Black	Brown
EPL3010-102	1.0 µH	Brown	Black	Red
EPL3010-152	1.5 µH	Brown	Green	Red
EPL3010-222	2.2 µH	Red	Red	Red
EPL3010-472	4.7 µH	Yellow	Violet	Red
EPL3010-103	10 µH	Brown	Black	Orange
EPL3010-223	22 µH	Red	Red	Orange

Note: All marked parts have three dots. Black dot, used only on -301, -102 and -103 as second significant digit, may be very difficult to see.

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

Small surface blemishes are not unusual and do not adversely affect performance. Wire may be visible inside the voids.

Acceptable void sizes:  
 Top: 0.01 in / 0,254 mm × 0.01 in / 0,254 mm  
 Sides: 0.02 in / 0,5 mm × 0.047 in / 1,2 mm

For optional tin-lead and tin-silver-copper terminations, dimensions are for the mounted part. Dimensions before mounting can be an additional 0.005 inch / 0.13 mm.



**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

## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [Fixed Inductors](#) category:*

*Click to view products by [Coilcraft](#) manufacturer:*

Other Similar products are found below :

[CR43NP-680KC](#) [CR54NP-820KC](#) [CR54NP-8R5MC](#) [CTX32CT-100](#) [70F224AI](#) [MGDQ4-00004-P](#) [MHL1ECTTP18NJ](#) [MHL1JCTTD12NJ](#)  
[PE-51506NL](#) [PE-53601NL](#) [PE-53602NL](#) [PE-53630NL](#) [PE-53824SNLT](#) [PE-92100NL](#) [PG0434.801NLT](#) [PG0936.113NLT](#) [9310-16](#) [PM06-2N7](#) [PM06-39NJ](#) [A01TK](#) [1206CS-471XJ](#) [HC2-2R2TR](#) [HC2LP-R47-R](#) [HC3-2R2-R](#) [1206CS-151XG](#) [RCH664NP-140L](#) [RCH664NP-4R7M](#)  
[RCH8011NP-221L](#) [RCP1317NP-332L](#) [RCP1317NP-391L](#) [RCR1010NP-470M](#) [RCR110DNP-331L](#) [DH2280-4R7M](#) [DS1608C-106](#) [ASPI-4020HI-R10M-T](#) [B10TJ](#) [B82477P4333M](#) [B82498B3101J000](#) [B82498B3680J000](#) [ELJ-RE27NJF2](#) [1812CS-153XJ](#) [1812CS-183XJ](#) [1812CS-223XJ](#) [1812LS-104XJ](#) [1812LS-105XJ](#) [1812LS-124XJ](#) [1812LS-154XJ](#) [1812LS-223XJ](#) [1812LS-224XJ](#) [1812LS-563XJ](#)