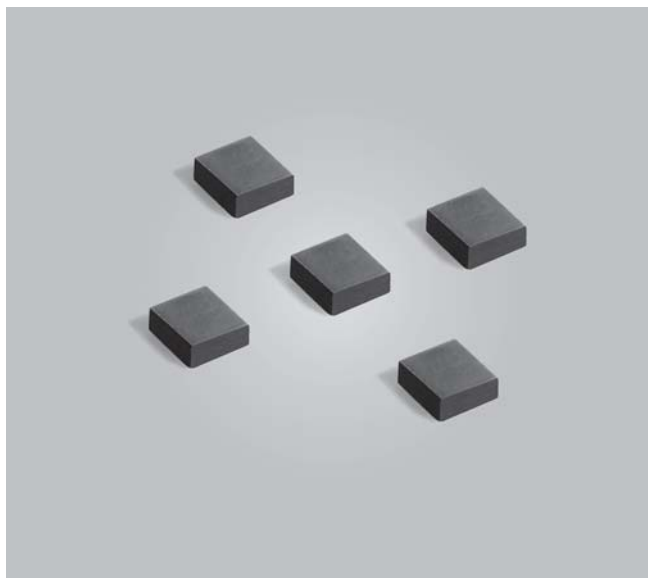


**NEW!**

# SMT Power Inductors – EPL3010 Series



- Low profile shielded power inductors, 3 × 3 × 1 mm
- Extremely low DCR and high SRF ratings
- Isat ratings as high as 2.2 A
- More values will be available soon

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

**Core material** Ferrite

**Terminations** RoHS compliant tin-silver-copper over tin over nickel over silver. Other terminations available at additional cost.

**Weight** 32 – 38 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** 2000/7" reel; 7500/13" reel; Plastic tape: 8 mm wide, 0.20 mm thick, 4 mm pocket spacing, 1.14 mm pocket depth

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

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>			I <sub>rms</sub> (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

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

**EPL3010-103MLC**

**Termination:** L = Tin-silver-copper over tin over nickel  
Special order: S = non-RoHS tin lead (63/37)

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

B = Less than full reel. In tape, but not machine ready.

To have a leader and trailer added (\$25 charge), use code letter C instead.

D = 13" machine-ready reel. EIA-481 embossed plastic tape. Factory order only, not stocked (7500 parts per full reel).

2. Inductance tested at 100 kHz, 0.1 V<sub>rms</sub>, 0 Adc.

3. DCR measured on a micro-ohmmeter.

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

5. DC current at which the inductance drops from its value without current.

6. Current that causes the specified temperature rise from 25°C ambient.

7. Electrical specifications at 25°C.

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

# Coilcraft®

Specifications subject to change without notice.  
Please check our website for latest information.

Document 615-1 Revised 07/20/09

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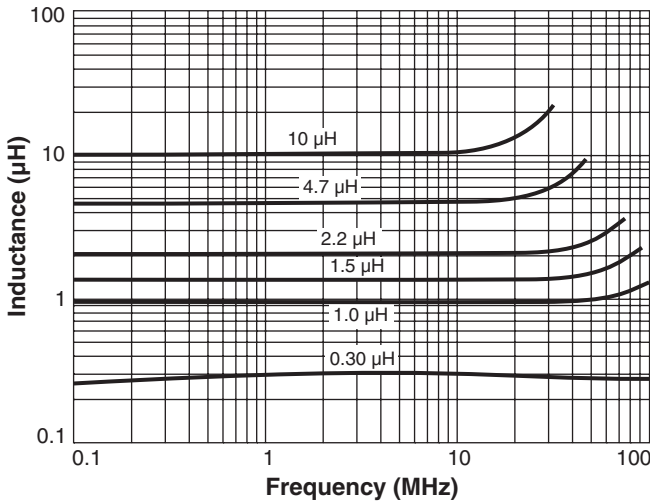
E-mail [info@coilcraft.com](mailto:info@coilcraft.com) Web <http://www.coilcraft.com>



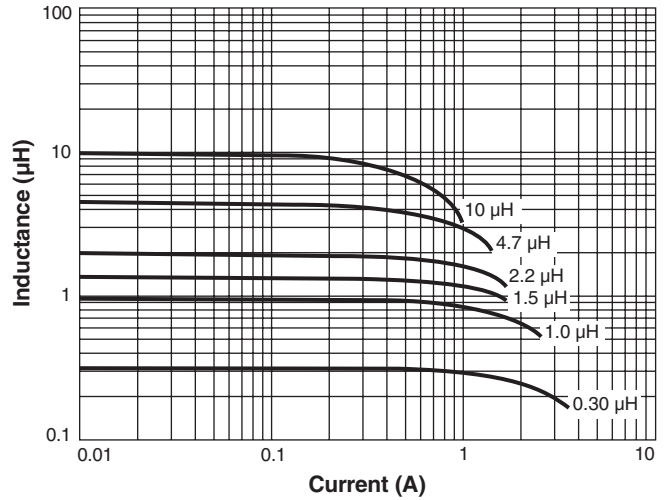
**NEW!**

# SMT Power Inductors – EPL3010 Series

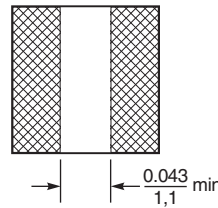
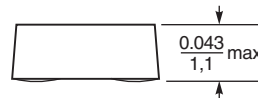
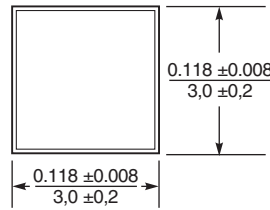
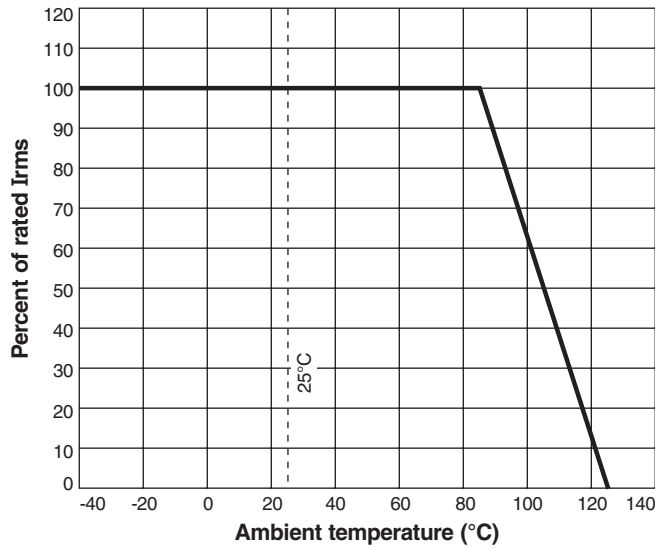
## L vs Frequency



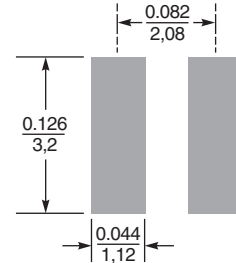
## L vs Current



## Current Derating



### Recommended Land Pattern



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



Specifications subject to change without notice.  
Please check our website for latest information.

Document 615-2 Revised 07/20/09

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