

**NEW!**

# SMT Power Inductors – EPL2014 Series



- Miniature shielded power inductors; 2.0 × 2.0 mm footprint
- Extremely low DCR and very high SRF ratings
- Isat ratings as high as 2.8 A

**Designer's Kit C413** contains 5 each of all values

**Core material** Ferrite

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

**Weight** 20 – 25 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: –55°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)

**Mean Time Between Failures (MTBF)** 26,315,789 hours

**Packaging** 2000/7" reel; 7500/13" reel Plastic tape: 8 mm wide, 0.28 mm thick, 4 mm pocket spacing, 1.65 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
EPL2014-301ML_	0.30	0.030	0.036	570	1.50	2.30	2.80	1.80	2.30
EPL2014-471ML_	0.47	0.037	0.044	438	1.40	2.00	2.40	1.74	2.25
EPL2014-601ML_	0.60	0.043	0.052	290	1.20	1.80	2.25	1.69	2.20
EPL2014-821ML_	0.82	0.051	0.061	163	0.950	1.40	1.75	1.64	2.15
EPL2014-102ML_	1.0	0.059	0.071	153	0.900	1.30	1.68	1.58	2.09
EPL2014-152ML_	1.5	0.075	0.086	109	0.720	1.20	1.60	1.50	2.00
EPL2014-222ML_	2.2	0.120	0.132	80	0.600	0.980	1.30	1.32	1.81
EPL2014-332ML_	3.3	0.152	0.167	62	0.540	0.800	1.10	1.23	1.69
EPL2014-472ML_	4.7	0.231	0.254	46	0.380	0.650	0.880	1.02	1.37
EPL2014-682ML_	6.8	0.287	0.316	44	0.350	0.590	0.800	0.741	1.00
EPL2014-822ML_	8.2	0.378	0.416	39	0.290	0.500	0.680	0.700	0.947
EPL2014-103ML_	10	0.440	0.459	33	0.250	0.450	0.600	0.631	0.909

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

EPL2014-103M L C

**Termination:** L = RoHS compliant tin-silver over gold over nickel over silver.

Special order: T = RoHS tin-silver-copper (95.5/4/0.5) or 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.

See Qualification Standards section for environmental and test data.

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

**SPICE models**

ON OUR WEB SITE OR CD

**Coilcraft**<sup>®</sup>

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

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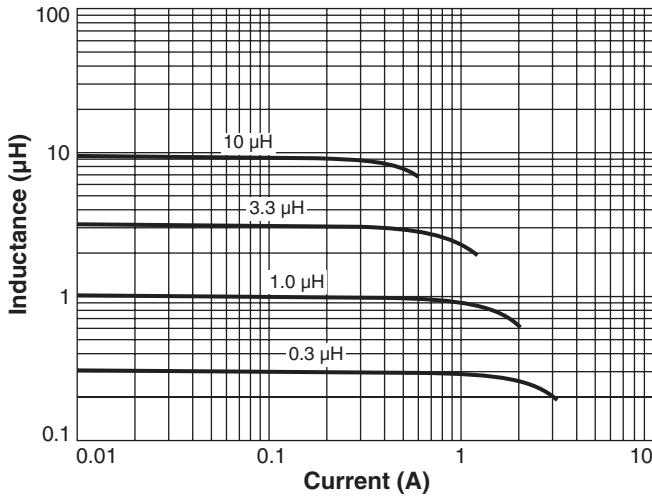
E-mail [info@coilcraft.com](mailto:info@coilcraft.com) Web <http://www.coilcraft.com>



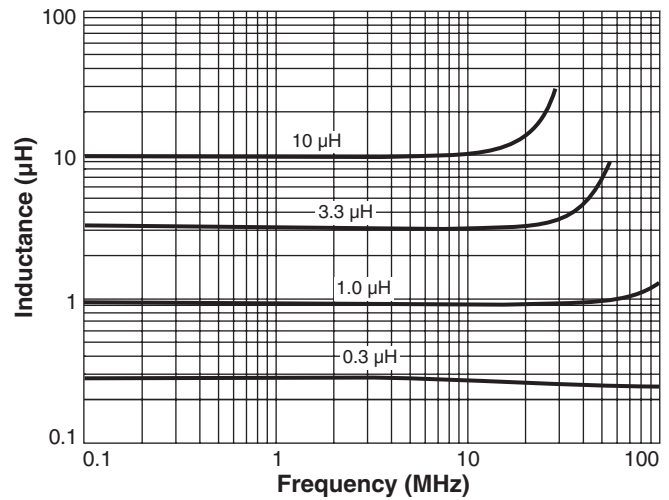
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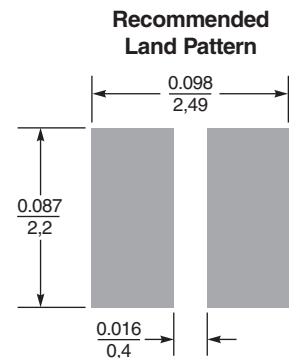
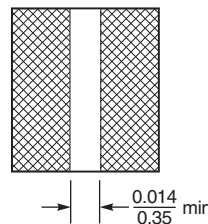
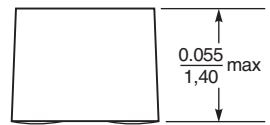
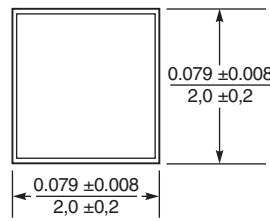
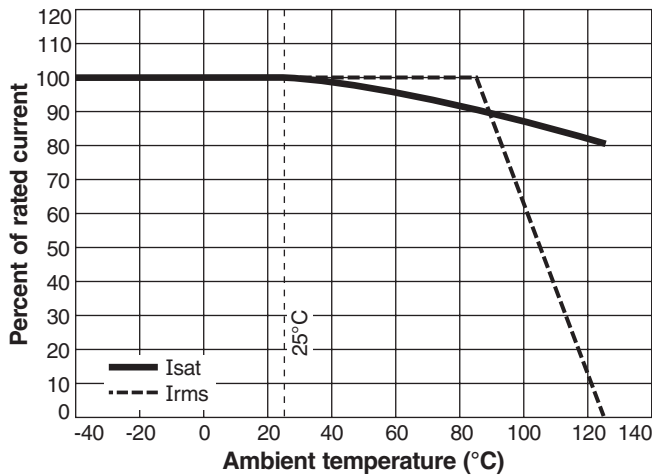
## Typical L vs Current



## Typical L vs Frequency



## Current Derating



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



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