

**NEW!**

SMT Power Inductors - LPO3010 Series



- Miniature power inductors – 3 × 3 mm, only 1.0 mm tall
- Low DCR; excellent current handling

Designer's Kit C388 contains 3 of each part

Core material Ferrite

Terminations RoHS compliant silver-palladium-platinum-glass frit. Other terminations available at additional cost.

Weight 20 – 22 mg

Ambient temperature –40°C to +85°C with I_{rms} 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 1000/7" reel; 3500/13" reel Plastic tape: 12 mm wide, 0.23 mm thick, 8 mm pocket spacing, 1.14 mm pocket depth

Recommended pick and place nozzle OD: 3 mm; ID: ≤1.5 mm

PCB washing Only pure water or alcohol recommended

Part number ¹	Inductance ² (μH)	DCR ³ max (Ohms)	SRF ⁴ typ (MHz)	I _{sat} ⁵ (A)	I _{rms} ⁶ (A)
LPO3010-102NL	1.0±30%	0.140	200	1.7	1.4
LPO3010-122NL	1.2±30%	0.160	190	1.6	1.4
LPO3010-152NL	1.5±30%	0.200	150	1.3	1.0
LPO3010-222NL	2.2±30%	0.265	140	1.2	0.90
LPO3010-332NL	3.3±30%	0.335	100	0.96	0.60
LPO3010-472NL	4.7±30%	0.570	80	0.76	0.50
LPO3010-682NL	6.8±30%	0.650	68	0.68	0.47
LPO3010-822NL	8.2±30%	1.00	60	0.64	0.45
LPO3010-103ML	10±20%	1.15	50	0.50	0.45
LPO3010-153ML	15±20%	1.57	35	0.42	0.40
LPO3010-223ML	22±20%	2.20	30	0.37	0.35
LPO3010-333ML	33±20%	2.80	14	0.31	0.29
LPO3010-473ML	47±20%	4.60	12	0.30	0.28

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

LPO3010-473ML C

Termination: L = RoHS compliant silver-palladium-platinum-glass frit
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 (1000 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 (3500 parts per full reel).

2. Inductance tested at 100 kHz, 0.1 Vrms using an Agilent/HP 4192A.

3. DCR measured on a micro-ohmmeter.

4. SRF measured using an Agilent/HP 8753ES or equivalent.

5. DC current at which the inductance drops 10% (typ) from its value without current.

6. Current that causes a 40°C temperature rise from 25°C ambient.

7. **Ambient temperature range:** –40°C to +85°C with I_{rms} current
+85°C to +125°C with derated current

8. **Storage temperature range:** Component: –55°C to +125°C
Packaging: –55°C to +80°C

9. **Resistance to soldering heat:** Three reflows at >217°C for 90 seconds (+260°C ±5°C for 20 – 40 seconds), allowing parts to cool to room temperature between.

10. 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®

Specifications subject to change without notice.

Please check our website for latest information.

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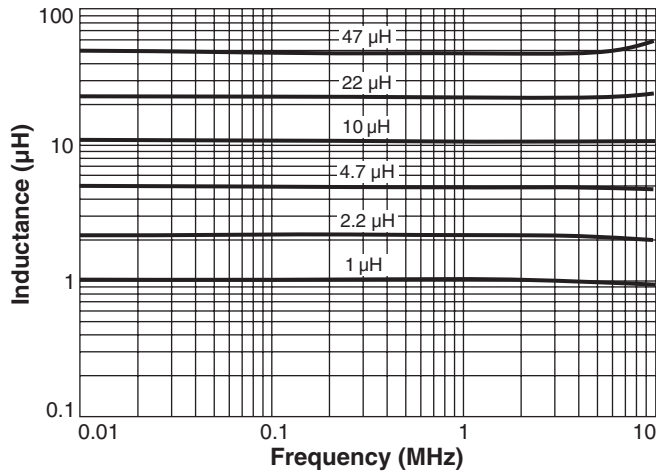
E-mail info@coilcraft.com Web <http://www.coilcraft.com>



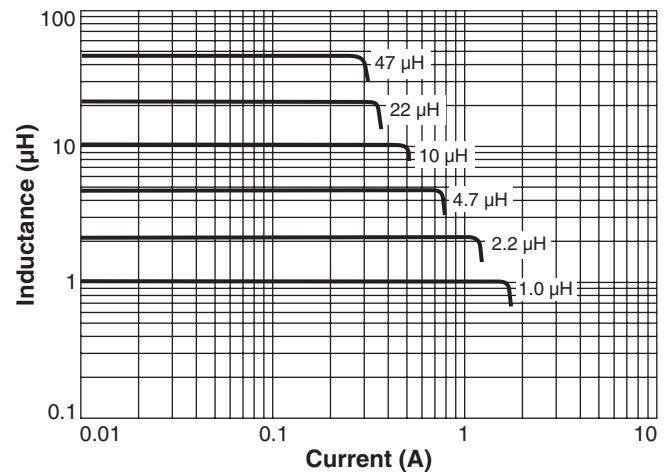
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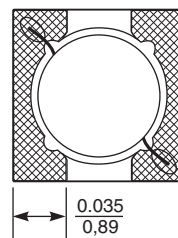
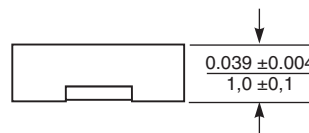
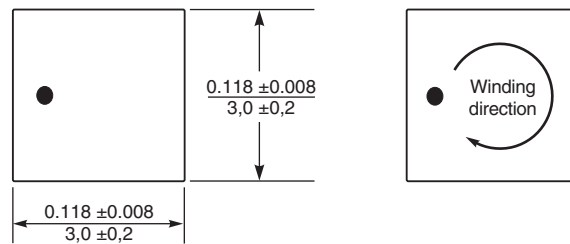
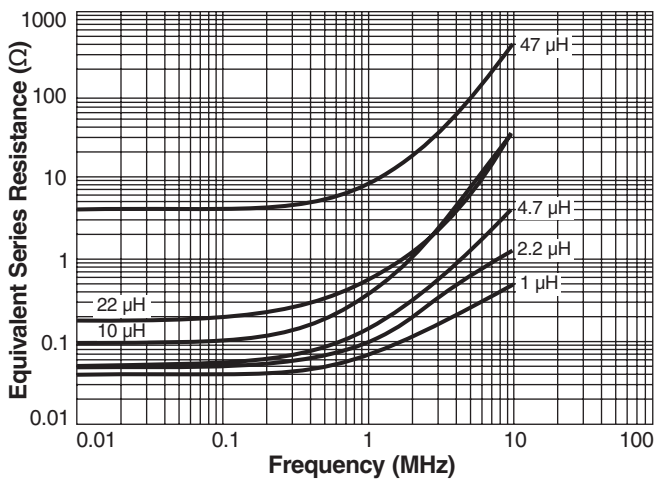
Typical L vs Frequency



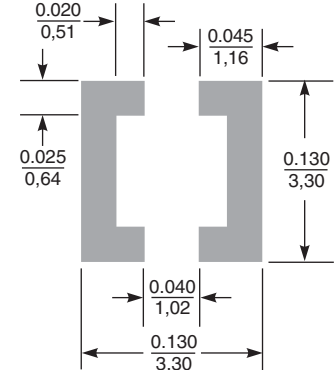
Typical L vs Current



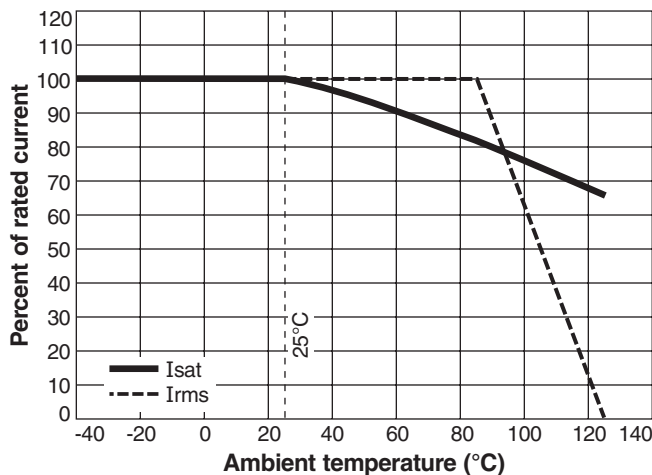
Typical ESR vs Frequency



Recommended Land Pattern



Current Derating



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