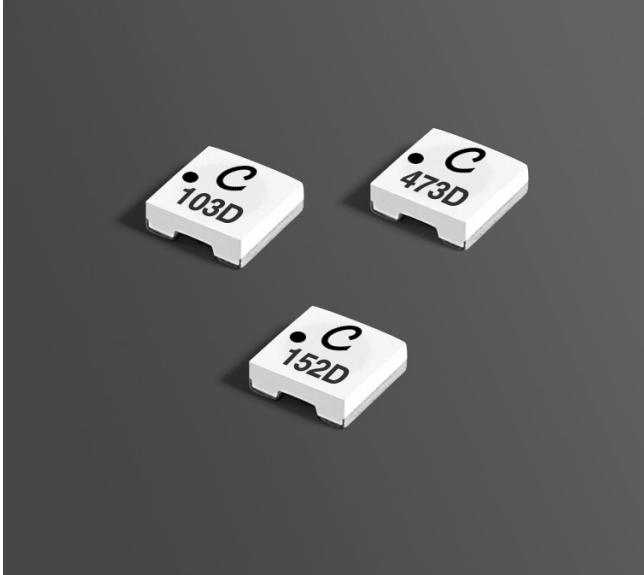




SMT Power Inductors - LPO3010



- 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 Irms current,

Maximum part temperature +125°C (ambient + temp rise)

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)

Failures in Time (FIT) / Mean Time Between Failures (MTBF)

38 per billion hours / 26,315,789 hours, calculated per Telcordia SR-332

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 Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See [Doc787_PCB_Washing.pdf](#).

Part number ¹	Inductance ² (μH)	DCR max ³ (Ohms)	SRF typ ⁴ (MHz)	Isat ⁵ (A)	Irms 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:

LPO3010-473MLC

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. Electrical specifications at 25°C.

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

SPICE models ON OUR WEB SITE



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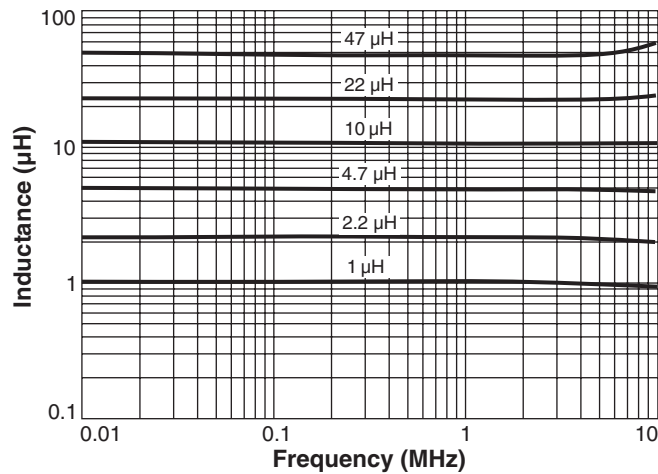
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This product may not be used in medical or high risk applications without prior Coilcraft approval. Specification subject to change without notice. Please check web site for latest information.

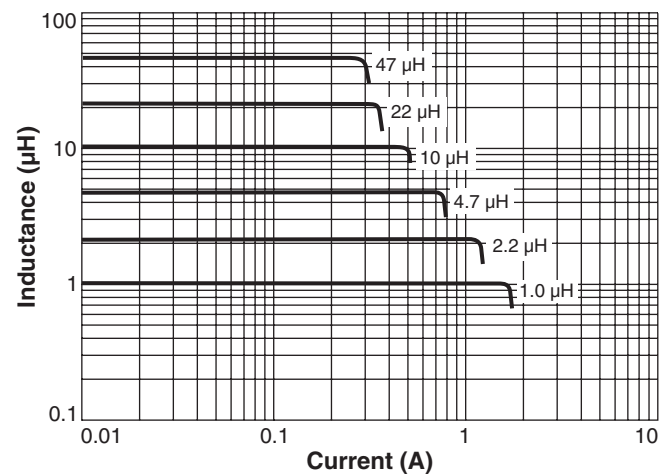


SMT Power Inductors - LPO3010 Series

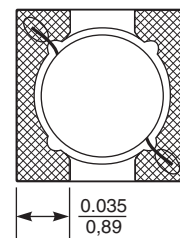
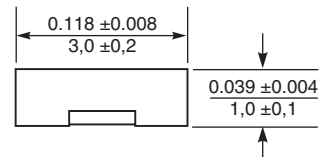
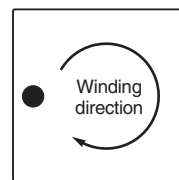
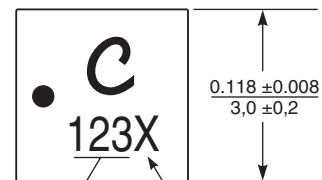
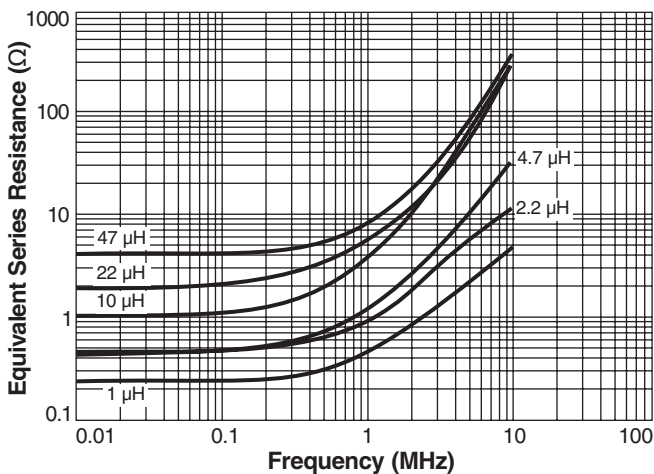
Typical L vs Frequency



Typical L vs Current

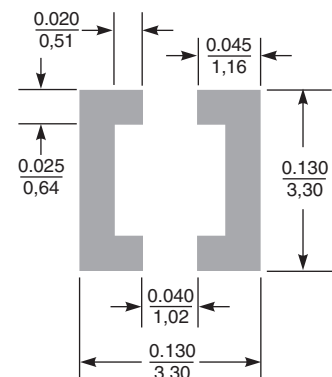


Typical ESR vs Frequency



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

Recommended Land Pattern



Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Coilcraft:

<u>LPO3010-153NLC</u>	<u>LPO3010-473NLB</u>	<u>LPO3010-152NLC</u>	<u>LPO3010-472NLC</u>	<u>LPO3010-122NLB</u>	<u>LPO3010-153NLB</u>
<u>LPO3010-332NLB</u>	<u>LPO3010-472NLB</u>	<u>LPO3010-333NLB</u>	<u>LPO3010-822NLC</u>	<u>LPO3010-102NLB</u>	<u>LPO3010-122NLC</u>
<u>LPO3010-223NLB</u>	<u>LPO3010-333NLC</u>	<u>LPO3010-222NLC</u>	<u>LPO3010-473NLC</u>	<u>LPO3010-332NLC</u>	<u>LPO3010-682NLB</u>
<u>LPO3010-222NLB</u>	<u>LPO3010-822NLB</u>	<u>LPO3010-223NLC</u>	<u>LPO3010-103NLB</u>	<u>LPO3010-152NLB</u>	<u>LPO3010-682NLC</u>
<u>LPO3010-102NLC</u>	<u>LPO3010-103NLC</u>	<u>LPO3010-103MLB</u>	<u>LPO3010-103MLC</u>	<u>LPO3010-153MLB</u>	<u>LPO3010-153MLC</u>
<u>LPO3010-223MLB</u>	<u>LPO3010-223MLC</u>	<u>LPO3010-333MLB</u>	<u>LPO3010-333MLC</u>	<u>LPO3010-473MLB</u>	<u>LPO3010-473MLC</u>