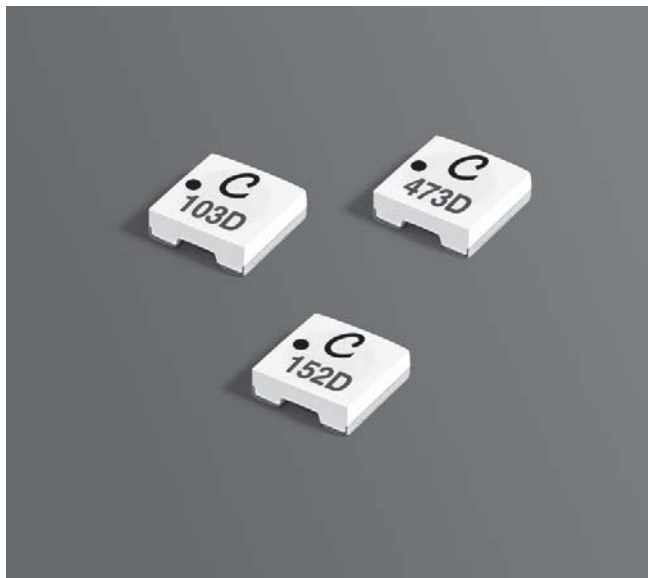




SMT Power Inductors - LPO3010 Series



- 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: –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 Only pure water or alcohol recommended

Part number ¹	Inductance ² (μ H)	DCR ³ max (Ohms)	SRF ⁴ typ (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:

LPO3010-473ML 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).

- Inductance tested at 100 kHz, 0.1 Vrms using an Agilent/HP 4192A.
 - DCR measured on a micro-ohmmeter.
 - SRF measured using an Agilent/HP 8753ES or equivalent.
 - DC current at which the inductance drops 10% (typ) from its value without current.
 - Current that causes a 40°C temperature rise from 25°C ambient.
 - Electrical specifications at 25°C.
- 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.

Document 399-1 Revised 02/25/09

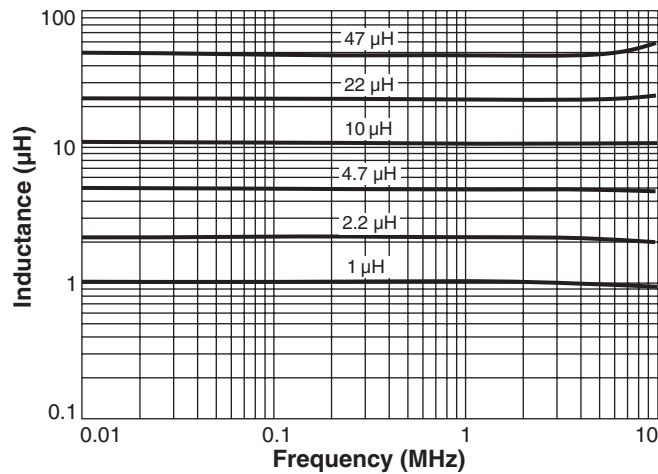
1102 Silver Lake Road Cary, Illinois 60013 Phone 847/639-6400 Fax 847/639-1469

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

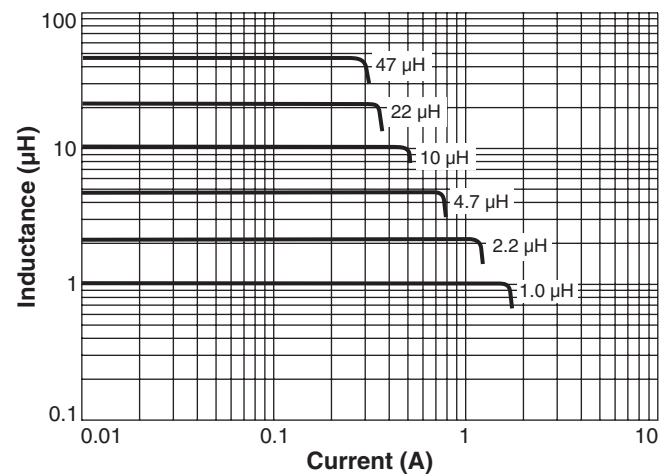


SMT Power Inductors - LPO3010 Series

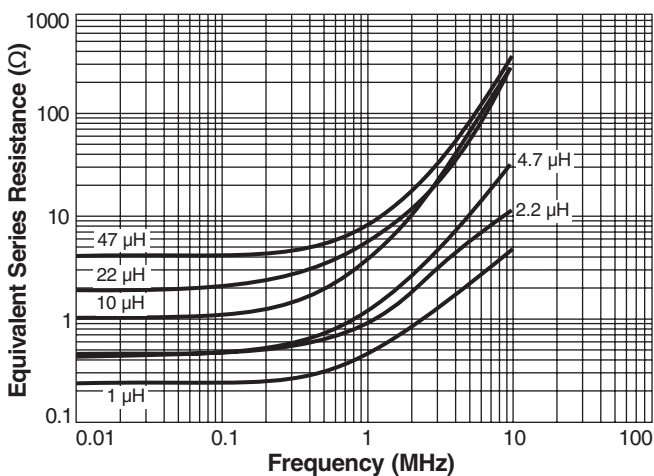
Typical L vs Frequency



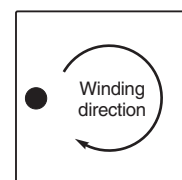
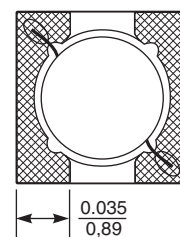
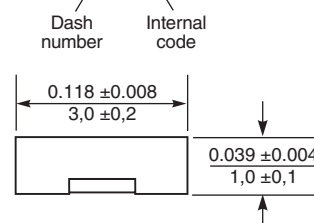
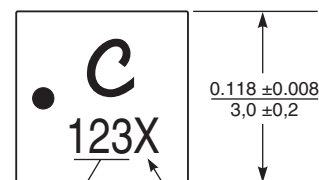
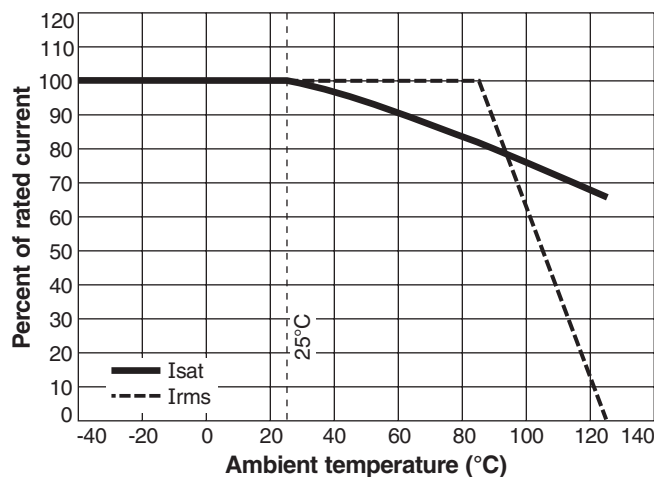
Typical L vs Current



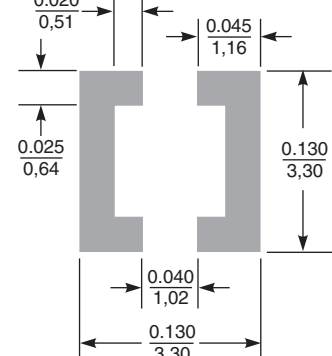
Typical ESR vs Frequency



Current Derating



Recommended Land Pattern



Coilcraft®

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

Document 399-2 Revised 02/25/09

1102 Silver Lake Road Cary, Illinois 60013 Phone 847/639-6400 Fax 847/639-1469

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