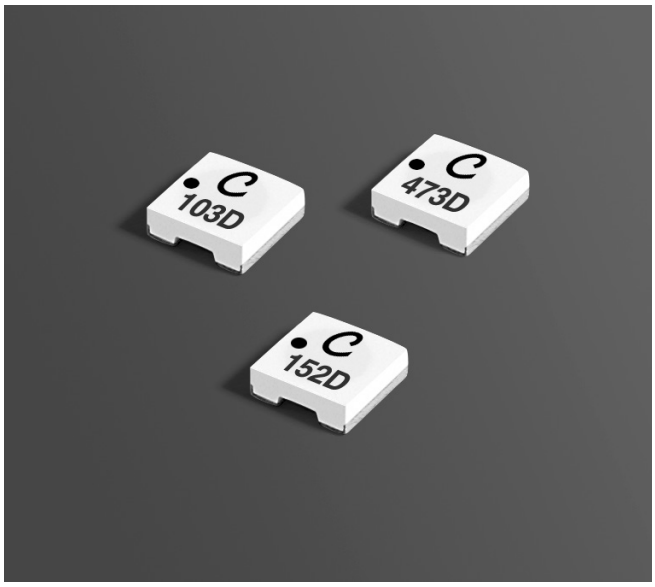
SMT Power Inductors - LPO3010



- 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, +85°C to +125°C with derated current
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 with pure water or alcohol only. For other solvents, 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.

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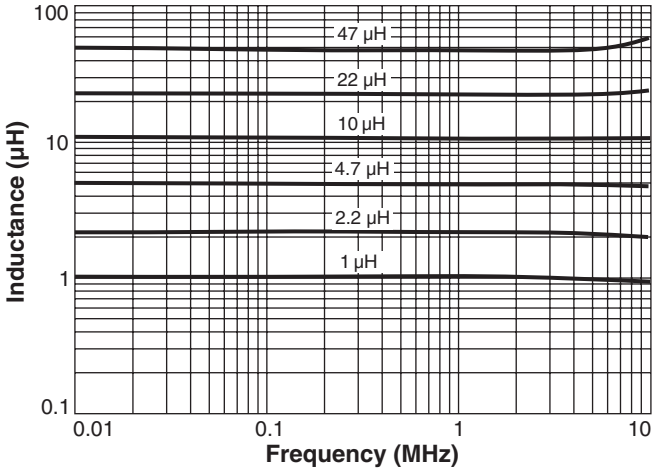
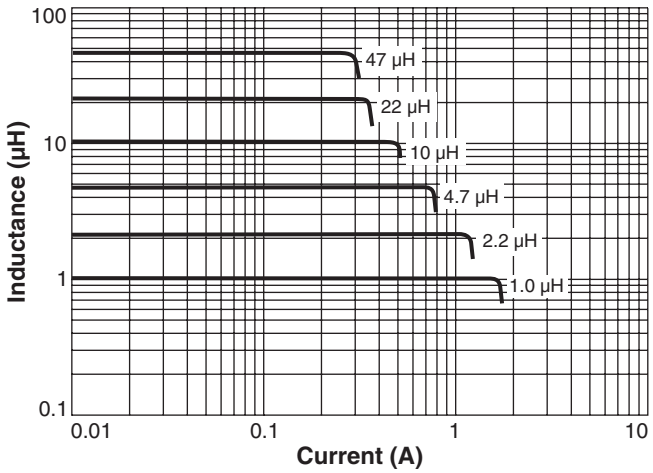
SMT Power Inductors - LPO3010 Series

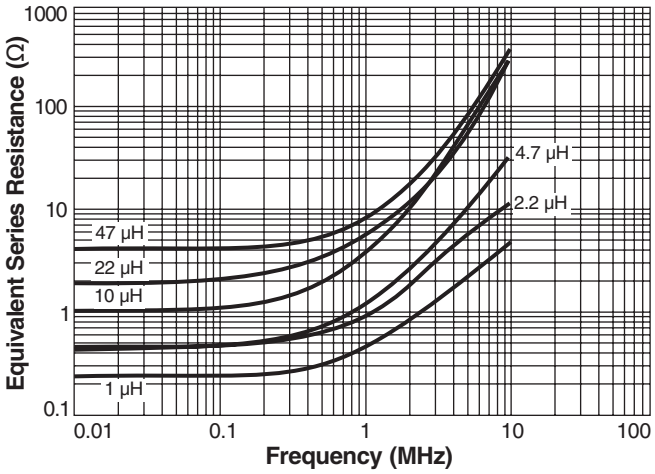
Typical L vs Frequency



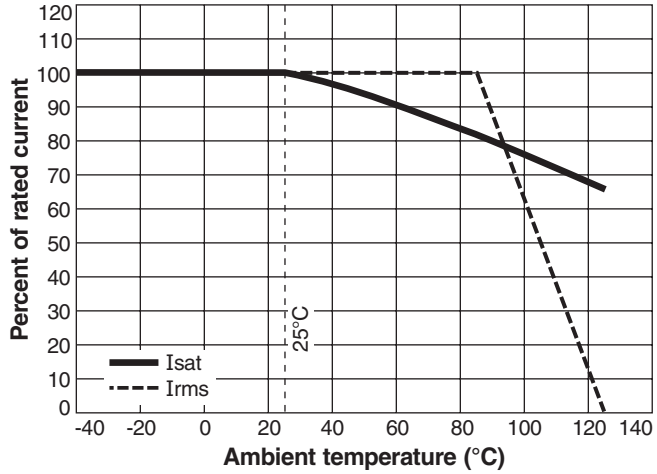
Typical L vs Current

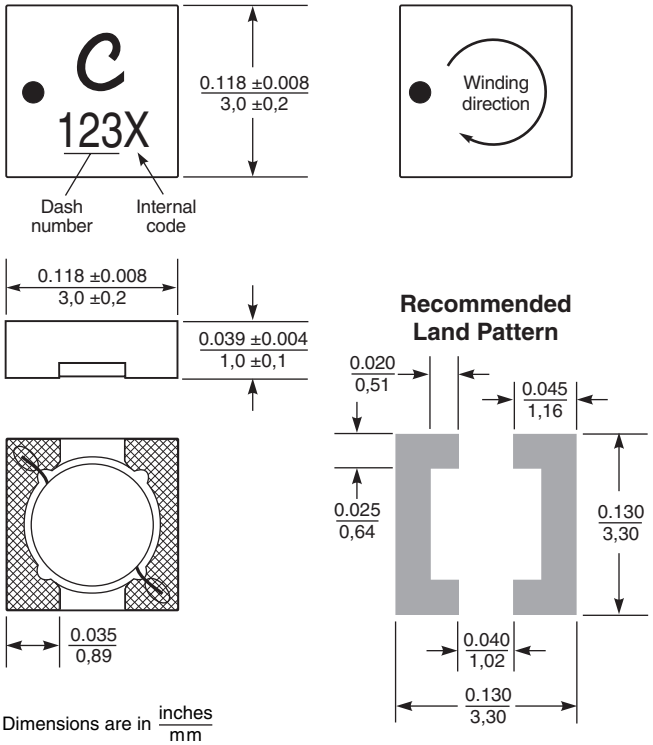


Typical ESR vs Frequency



Current Derating





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