



SMT Power Inductors - LPO4815 Series



- Very low profile - only 1.5 mm high!
- Handles current up to 1.9 Amps rms

Designer's Kit C376 contains 3 each of all values

Core material Ferrite

Core and winding loss See www.coilcraft.com/coreloss

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

Weight 70.0 – 78.5 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, 0.3 mm thick, 8 mm pocket spacing, 1.6 mm pocket depth

Recommended pick and place nozzle OD: 4.6 mm; ID: ≤ 2.3 mm

PCB washing Only pure water or alcohol recommended

Part number ¹	Inductance ² (μH)	DCR ³ max (Ohms)	SRF ⁴ typ (MHz)	Isat ⁵ (A)	I _{rms} ⁶ (A)
LPO4815-102ML_	1.0±20%	0.036	230	1.6	1.9
LPO4815-152ML_	1.5±20%	0.085	200	1.5	1.7
LPO4815-222ML_	2.2±20%	0.088	150	1.1	1.5
LPO4815-332ML_	3.3±20%	0.12	115	0.90	1.3
LPO4815-392ML_	3.9±20%	0.13	105	0.86	1.2
LPO4815-472ML_	4.7±20%	0.15	95	0.77	1.1
LPO4815-682ML_	6.8±20%	0.18	72	0.65	1.0
LPO4815-822ML_	8.2±20%	0.22	65	0.58	0.90
LPO4815-103KL_	10±10%	0.23	60	0.50	0.85
LPO4815-123KL_	12±10%	0.31	50	0.45	0.80
LPO4815-153KL_	15±10%	0.36	45	0.42	0.75
LPO4815-223KL_	22±10%	0.46	35	0.37	0.70
LPO4815-333KL_	33±10%	0.71	30	0.28	0.65
LPO4815-393KL_	39±10%	0.83	25	0.26	0.60
LPO4815-473KL_	47±10%	1.20	25	0.22	0.55
LPO4815-683KL_	68±10%	1.40	20	0.20	0.45
LPO4815-104KL_	100±10%	2.15	15	0.15	0.36
LPO4815-154KL_	150±10%	3.15	12	0.13	0.30
LPO4815-224KL_	220±10%	4.30	10	0.11	0.27

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

LPO4815-224KL 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 V_{rms}.

3. DCR measured on a micro-ohmmeter.

4. SRF measured using Agilent/HP 4191A 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 OR CD

Coilcraft®

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

Document 354-1 Revised 10/14/08

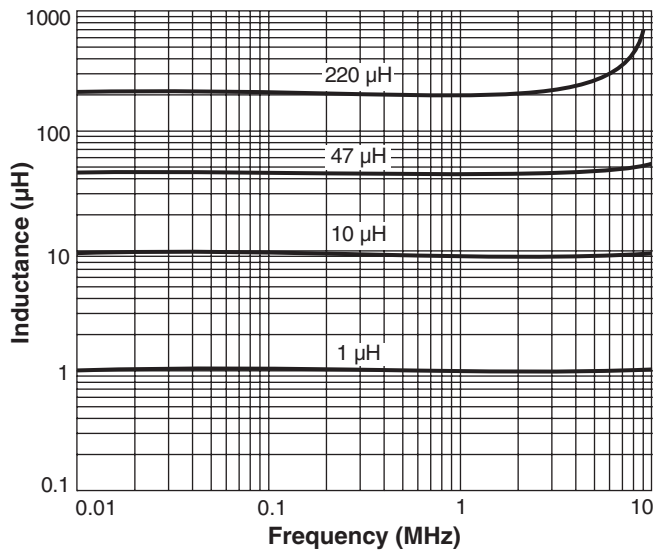
1102 Silver Lake Road Cary, Illinois 60013 Phone 847/639-6400 Fax 847/639-1469

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

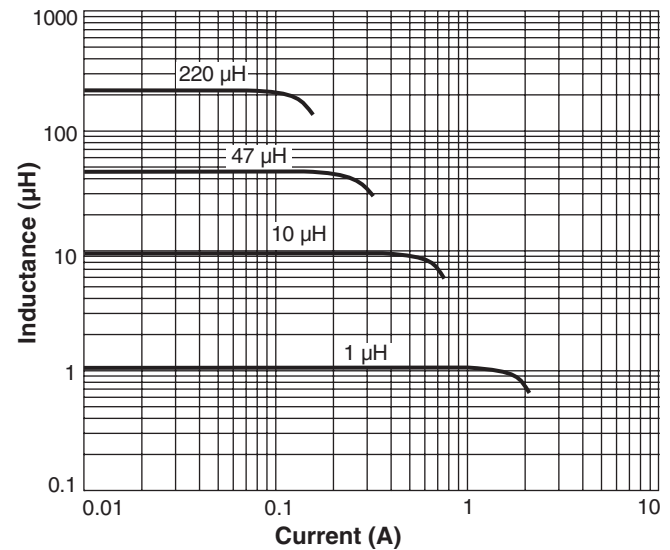


SMT Power Inductors - LPO4815 Series

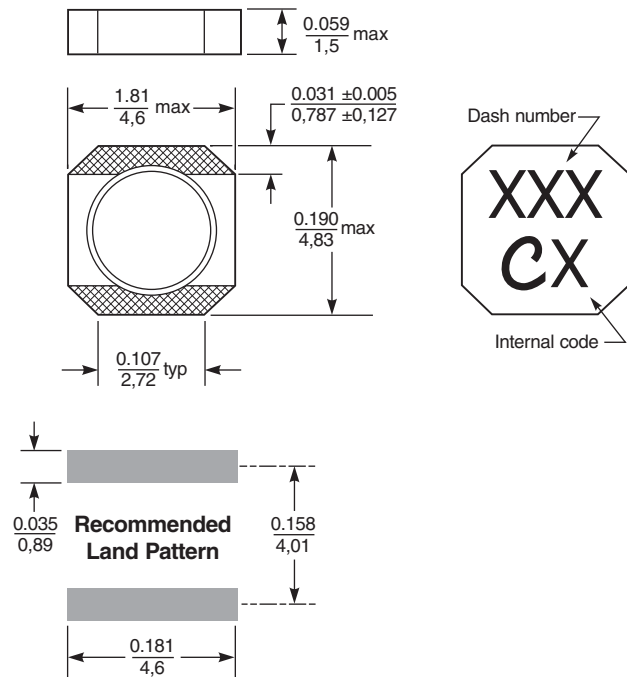
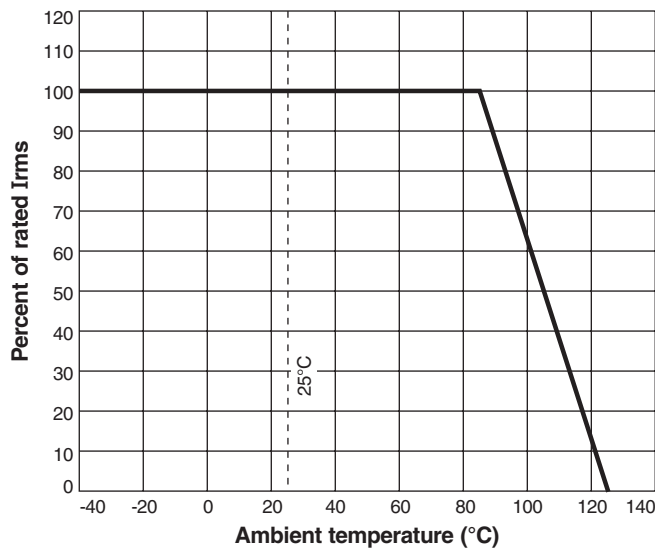
Typical L vs Frequency



Typical L vs Current



Irms Derating



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

Coilcraft®

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

Document 354-2 Revised 10/14/08

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>