



# SMT Power Inductors - LPO6013 Series



- Very low profile – only 1.3 mm high!
- Handles saturating current up to 1.9 Amps

**Designer's Kit C352** contains 3 each of all values

**Core material** Ferrite

**Core and winding loss** See [www.coilcraft.com/coreloss](http://www.coilcraft.com/coreloss)

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

**Weight** 111 – 122 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, 1.4 mm pocket depth

**Recommended pick and place nozzle** OD: 5.6 mm; ID: ≤ 2.8 mm

**PCB washing** Only pure water or alcohol recommended

Part number <sup>1</sup>	L <sup>2</sup> ( $\mu$ H)	DCR max (Ohms)	SRF typ (MHz)	Isat <sup>3</sup> (A)	Irms <sup>4</sup> (A)
LPO6013-102ML_	1.0 ±20%	0.06	200	1.9	1.5
LPO6013-152ML_	1.5 ±20%	0.07	200	1.6	1.4
LPO6013-222ML_	2.2 ±20%	0.08	150	1.3	1.3
LPO6013-332ML_	3.3 ±20%	0.11	110	1.1	1.3
LPO6013-392ML_	3.9 ±20%	0.13	100	1.0	1.2
LPO6013-472ML_	4.7 ±20%	0.15	90	0.90	1.2
LPO6013-682ML_	6.8 ±20%	0.20	70	0.70	1.2
LPO6013-822ML_	8.2 ±20%	0.22	65	0.70	1.0
LPO6013-103KL_	10 ±10%	0.30	60	0.60	1.0
LPO6013-153KL_	15 ±10%	0.38	47	0.55	0.85
LPO6013-223KL_	22 ±10%	0.52	37	0.45	0.80
LPO6013-333KL_	33 ±10%	0.73	30	0.40	0.74
LPO6013-393KL_	39 ±10%	0.96	28	0.35	0.67
LPO6013-473KL_	47 ±10%	1.0	25	0.30	0.60
LPO6013-683KL_	68 ±10%	1.7	21	0.28	0.49
LPO6013-104KL_	100 ±10%	3.2	17	0.22	0.35
LPO6013-154KL_	150 ±10%	4.3	14	0.19	0.30
LPO6013-224KL_	220 ±10%	5.8	10	0.15	0.26
LPO6013-334KL_	330 ±10%	7	8	0.13	0.23
LPO6013-474KL_	470 ±10%	10	7	0.10	0.20
LPO6013-684KL_	680 ±10%	14	5.6	0.09	0.18
LPO6013-105KL_	1000 ±10%	21	4.7	0.07	0.13

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

LPO6013-473K L 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, 0 Adc.
  3. DC current at which the inductance drops 10% (typ) from its value without current.
  4. Current that causes a 40°C temperature rise from 25°C ambient.
  5. 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**<sup>®</sup>

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

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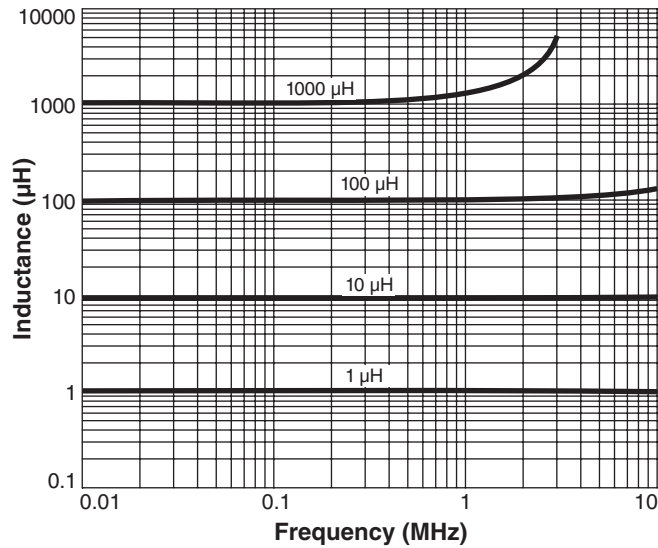
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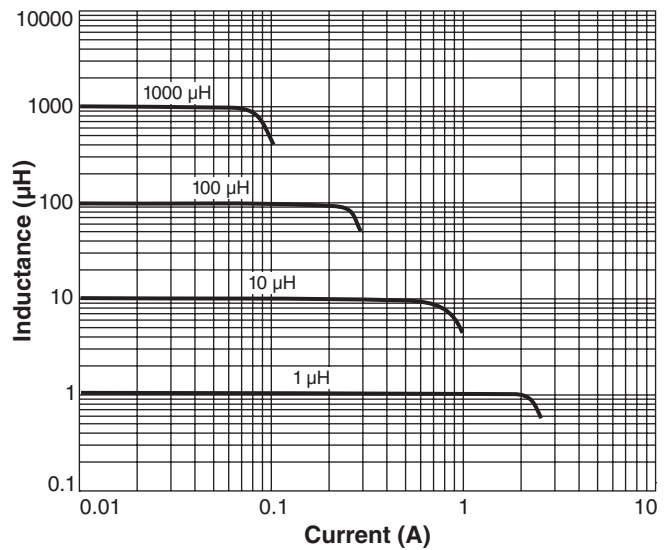


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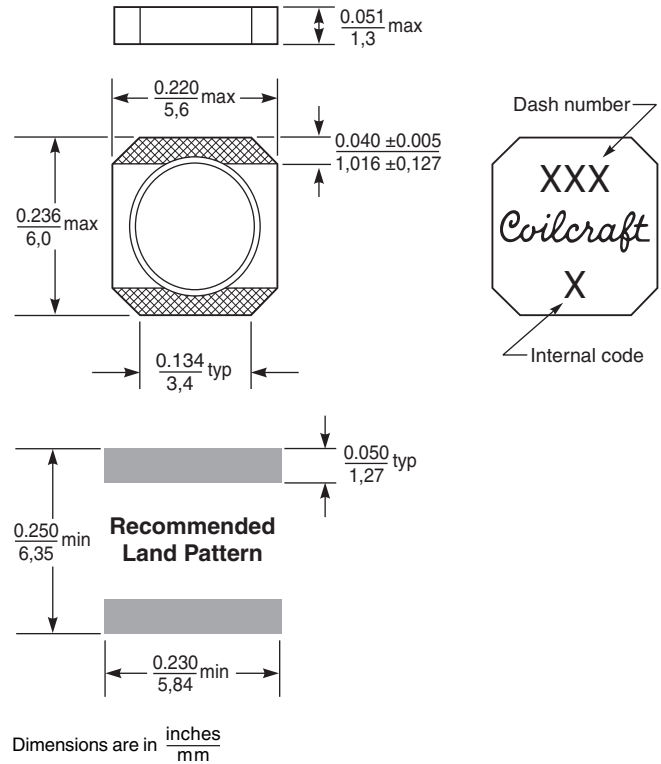
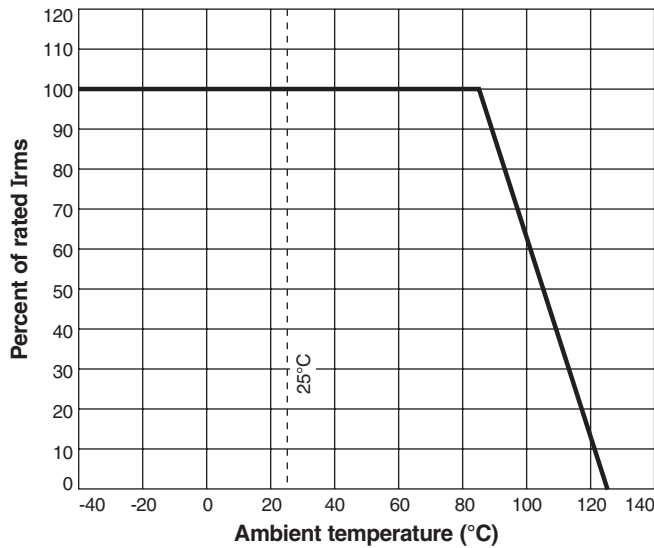
## Typical L vs Frequency



## Typical L vs Current



## Irms Derating



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

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