SMT Power Inductors - LPO6013

- 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

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 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, 1.4 mm pocket depth

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

PCB washing Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See Doc787_PCB_Washing.pdf.

Part number[1]	L[2] (µH)	DCR max (Ohms)	SRF typ (MHz)	Isat[3] (A)	Irms[4] (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:

   LPO6013-473KLC

   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.

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

SPICE models ON OUR WEB SITE

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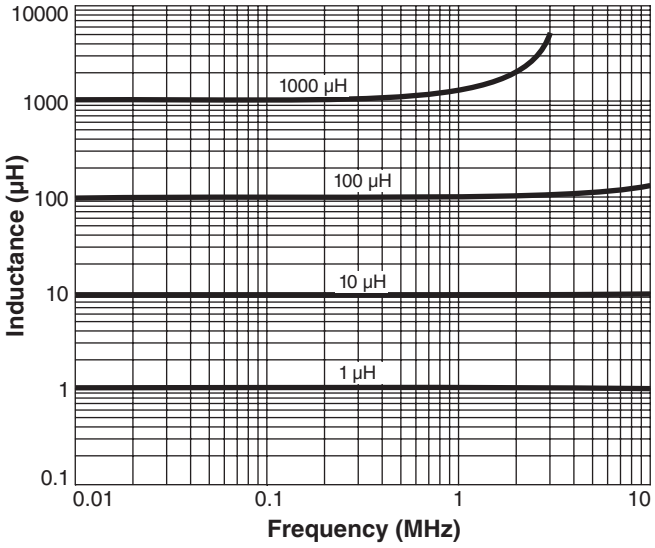
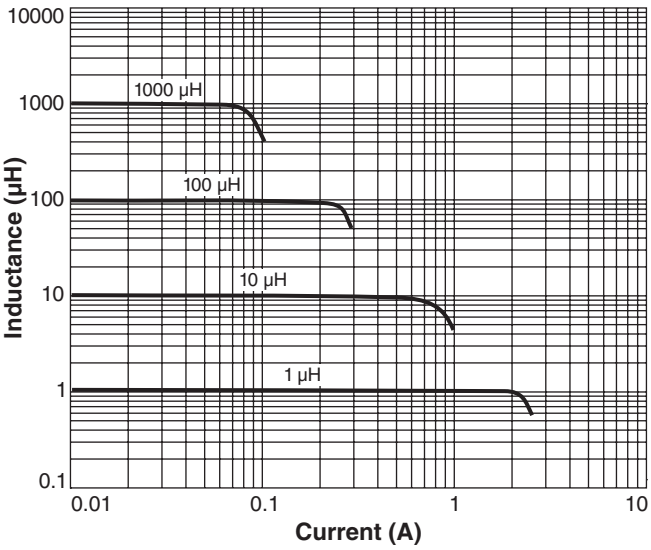
SMT Power Inductors - LPO6013 Series

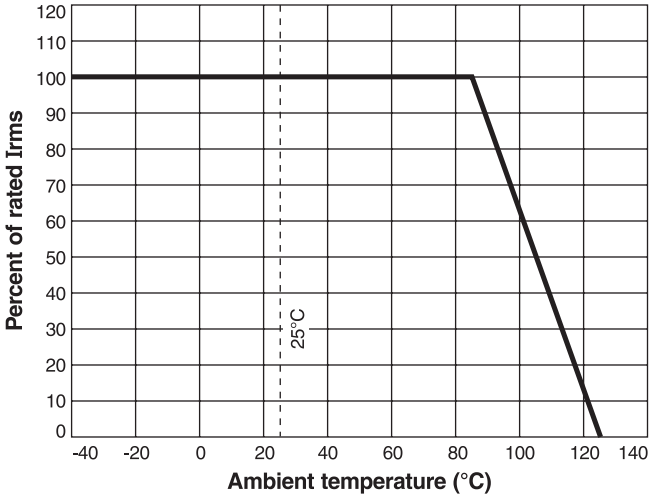
Typical L vs Frequency

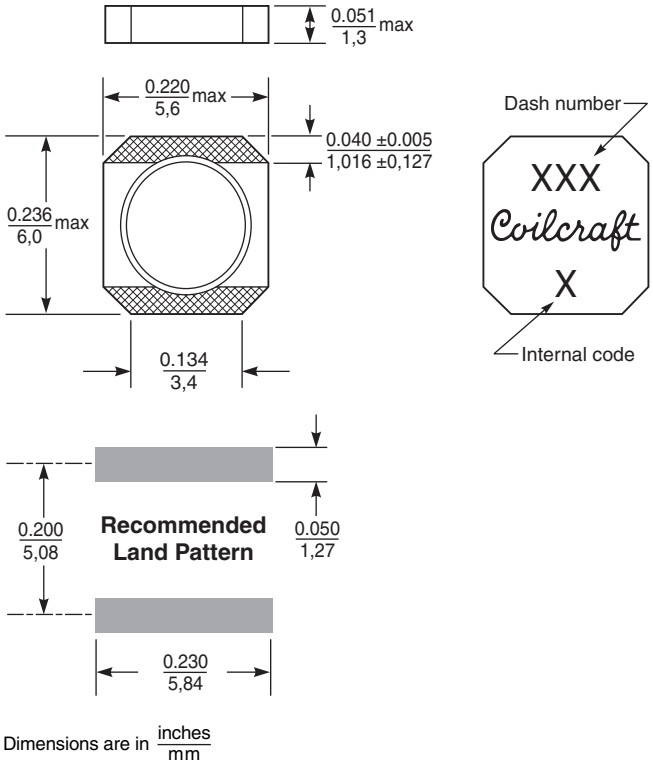


Typical L vs Current



Irms Derating





Dimensions are in inches / mm

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