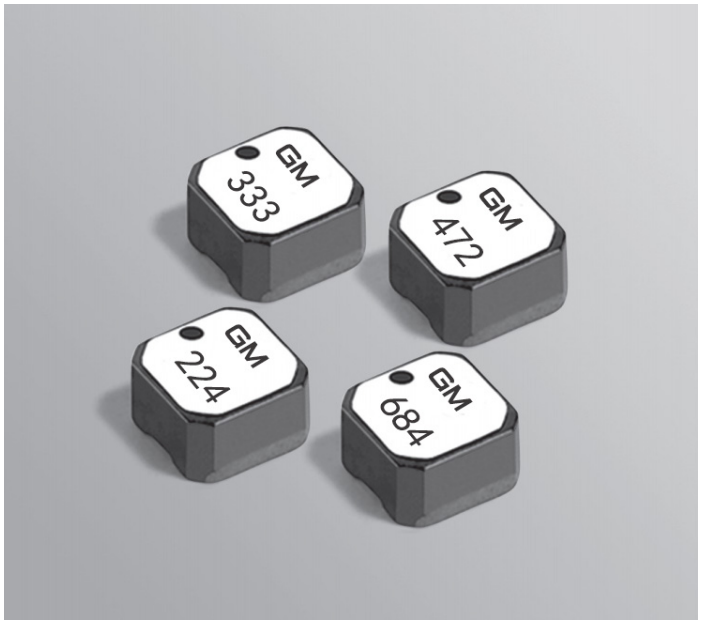
Shielded Power Inductors – LP5030



- Very low DCR; excellent current handling
- 4.9 × 4.9 mm footprint; less than 3 mm tall

Designer's Kit C420 contains 3 each of all values
Core material Ferrite
Environmental RoHS compliant, halogen free
Terminations RoHS compliant matte tin over nickel over silver. Other terminations available at additional cost.
Weight 226 – 244 mg
Ambient temperature –40°C to +85°C with (40°C rise) Irms current.
Maximum part temperature +125°C (ambient + temp rise).
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 750/7″ reel; 2500/13″ reel Plastic tape: 12 mm wide, 0.32 mm thick, 8 mm pocket spacing, 3.1 mm pocket depth
Recommended pick and place nozzle OD: 5 mm; ID: ≤ 2.5 mm
PCB washing Tested to MIL-STD-202 Method 215 plus an additional aqueous wash.

Part number	Inductance ±20% (µH)	DCR max (Ohms)	SRF typ (MHz)	Isat (A) 10% drop	Isat (A) 20% drop	Isat (A) 30% drop	Irms (A) 20°C rise	Irms (A) 40°C rise
LP5030-901MR_	0.90	0.040	250	3.8	4.0	4.1	2.10	2.80
LP5030-122MR_	1.2	0.043	210	3.5	3.6	3.7	2.00	2.65
LP5030-172MR_	1.7	0.051	190	3.0	3.2	3.3	1.90	2.50
LP5030-222MR_	2.2	0.057	168	2.9	3.1	3.2	1.60	2.15
LP5030-332MR_	3.3	0.066	125	2.3	2.5	2.6	1.40	1.80
LP5030-472MR_	4.7	0.083	84	1.9	2.0	2.0	1.30	1.75
LP5030-562MR_	5.6	0.089	70	1.8	1.8	1.9	1.25	1.65
LP5030-682MR_	6.8	0.099	56	1.6	1.7	1.7	1.20	1.60
LP5030-822MR_	8.2	0.125	45	1.6	1.7	1.7	1.10	1.55
LP5030-103MR_	10.0	0.127	30	1.4	1.4	1.4	1.00	1.50
LP5030-123MR_	12.0	0.155	24	1.3	1.4	1.4	0.95	1.40
LP5030-153MR_	15.0	0.160	32	0.80	0.90	0.90	0.92	1.40
LP5030-183MR_	18.0	0.170	27	0.80	0.82	0.87	0.90	1.30
LP5030-223MR_	22.0	0.190	24	0.70	0.75	0.78	0.88	1.25
LP5030-333MR_	33.0	0.260	19	0.60	0.63	0.64	0.85	1.20
LP5030-473MR_	47.0	0.330	16	0.50	0.53	0.55	0.75	1.00
LP5030-683MR_	68.0	0.440	12	0.40	0.43	0.44	0.65	0.900
LP5030-823MR_	82.0	0.470	11	0.38	0.40	0.40	0.60	0.830
LP5030-104MR_	100	0.600	10	0.27	0.31	0.32	0.55	0.750
LP5030-124MR_	120	0.800	9	0.26	0.29	0.30	0.45	0.660
LP5030-154MR_	150	0.860	7.5	0.22	0.25	0.263	0.42	0.570
LP5030-224MR_	220	1.35	6.0	0.21	0.235	0.245	0.36	0.500
LP5030-334MR_	330	1.80	5.0	0.155	0.155	0.200	0.32	0.420
LP5030-474MR_	470	2.80	4.0	0.117	0.134	0.146	0.28	0.370
LP5030-564MR_	560	3.20	3.6	0.110	0.130	0.140	0.23	0.320
LP5030-684MR_	680	3.80	3.0	0.100	0.120	0.126	0.20	0.290
LP5030-105MR_	1000	5.10	2.5	0.100	0.110	0.110	0.18	0.250
LP5030-155MR_	1500	7.60	2.0	0.068	0.080	0.089	0.15	0.210
LP5030-185MR_	1800	10.0	1.8	0.069	0.081	0.086	0.13	0.170
LP5030-225MR_	2200	11.0	1.6	0.063	0.074	0.080	0.10	0.150
LP5030-335MR_	3300	19.5	1.3	0.056	0.063	0.067	0.090	0.125
LP5030-475MR_	4700	26.0	1.1	0.049	0.056	0.059	0.080	0.110

1. Please specify **termination** and **packaging** codes:

LP5030-105MRC

Termination: **R**= RoHS compliant matte tin over nickel over silver. Special order, added cost: **Q** = RoHS tin-silver-copper (95.5/4/0.5) or **P** = non-RoHS tin-lead (63/37).

Packaging: **C**= 7″ machine-ready reel. EIA-481 embossed plastic tape (750 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. Factory order only, not stocked (2500 parts per full reel).

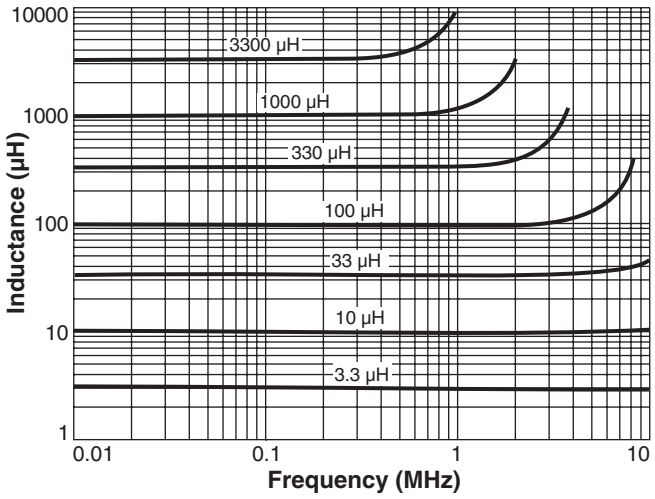
2. Inductance tested at 100 kHz, 0.1 Vrms, 0 Adc using an Agilent/HP 4192A impedance analyzer or equivalent.
3. DCR measured on a micro-ohmmeter.
4. SRF measured using Agilent/HP 8753ES or equivalent.
5. DC current at 25°C that causes the specified inductance drop from its value without current.
6. Current that causes the specified temperature rise from 25°C ambient. This information is for reference only and does not represent absolute maximum ratings.
7. Electrical specifications at 25°C. Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

PulseGM
www.pulsegm.com
China +86-0755-21055287
Sales@pulsegm.com

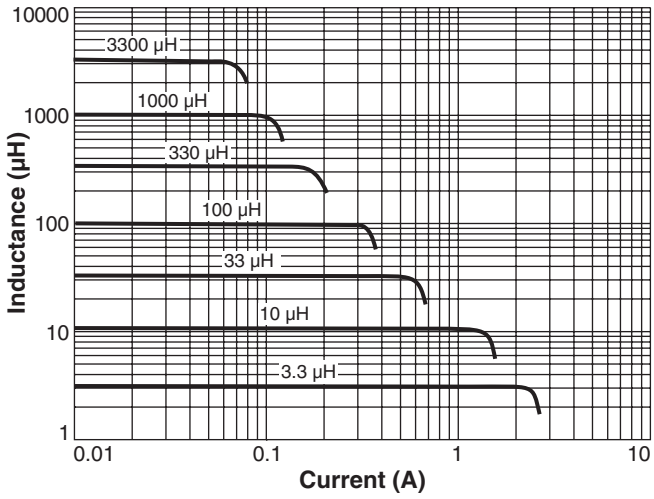
©PulseGM Inc. 2019
This product may not be used in medical or high risk applications without prior PulseGM approval. Specification subject to change without notice. Please check web site for latestinformation.

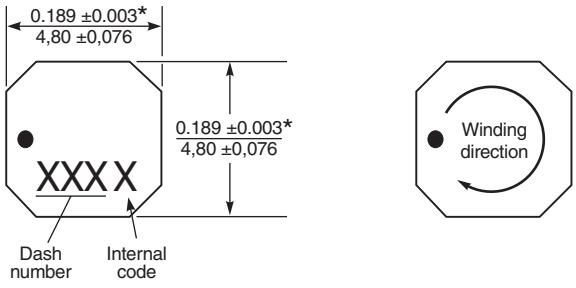
Shielded Power Inductors – LP5030 Series

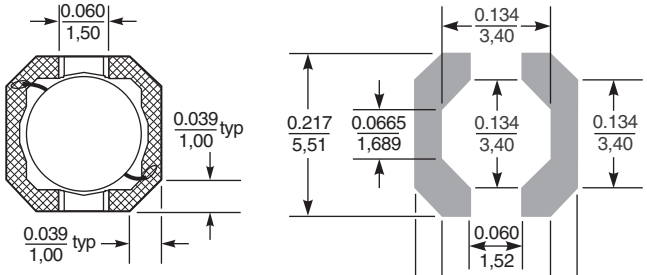
Typical L vs Frequency



Typical L vs Current







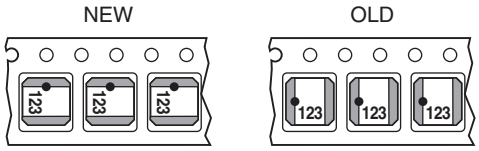
Recommended Land Pattern

* Dimensions are of the case not including the termination. For maximum overall dimensions including the termination, add 0.005 in / 0,13 mm.
For optional tin-lead and tin-silver-copper terminations, dimensions are for the mounted part. Dimensions before mounting can be an additional 0.005 inch / 0,13 mm).

Dimensions are in inches / mm

Packaging 750/7″ reel; 2500/13″ reel Plastic tape: 12 mm wide, 0.32 mm thick, 8 mm pocket spacing, 3.1 mm pocket depth

NOTE NEW PART ORIENTATION Parts are rotated 90° in the packaging tape compared to previous versions of this product.



©PulseGM Inc. 2019
This product may not be used in medical or high risk applications without prior PulseGM approval.
Specification subject to change without notice.
Please check web site for latestinformation.