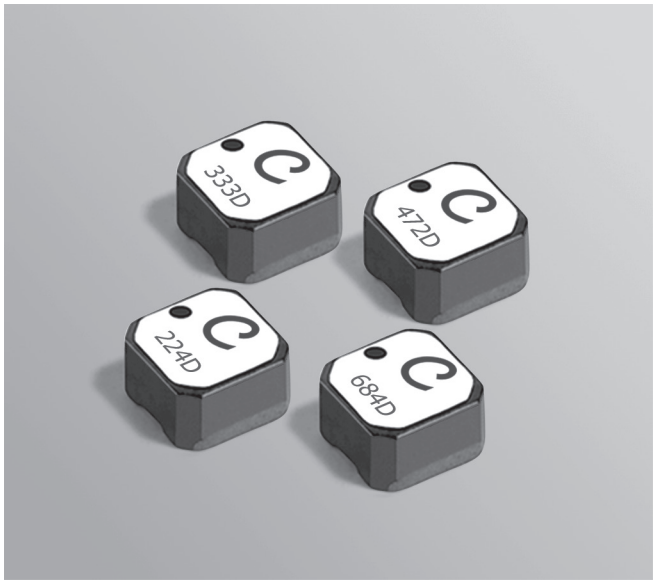
Shielded Power Inductors – LPS5030



- 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). Derating.
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. See Doc787_PCB_Washing.pdf.

Part number[1]	Inductance[2] ±20% (µH)	DCR max[3] (Ohms)	SRF typ[4] (MHz)	Isat (A)[5] 10% drop	Isat (A)[5] 20% drop	Isat (A)[5] 30% drop	Irms (A)[6] 20°C rise	Irms (A)[6] 40°C rise
LPS5030-901MR_	0.90	0.040	250	3.8	4.0	4.1	2.10	2.80
LPS5030-122MR_	1.2	0.043	210	3.5	3.6	3.7	2.00	2.65
LPS5030-172MR_	1.7	0.051	190	3.0	3.2	3.3	1.90	2.50
LPS5030-222MR_	2.2	0.057	168	2.9	3.1	3.2	1.60	2.15
LPS5030-332MR_	3.3	0.066	125	2.3	2.5	2.6	1.40	1.80
LPS5030-472MR_	4.7	0.083	84	1.9	2.0	2.0	1.30	1.75
LPS5030-562MR_	5.6	0.089	70	1.8	1.8	1.9	1.25	1.65
LPS5030-682MR_	6.8	0.099	56	1.6	1.7	1.7	1.20	1.60
LPS5030-822MR_	8.2	0.125	45	1.6	1.7	1.7	1.10	1.55
LPS5030-103MR_	10.0	0.127	30	1.4	1.4	1.4	1.00	1.50
LPS5030-123MR_	12.0	0.155	24	1.3	1.4	1.4	0.95	1.40
LPS5030-153MR_	15.0	0.160	32	0.80	0.90	0.90	0.92	1.40
LPS5030-183MR_	18.0	0.170	27	0.80	0.82	0.87	0.90	1.30
LPS5030-223MR_	22.0	0.190	24	0.70	0.75	0.78	0.88	1.25
LPS5030-333MR_	33.0	0.260	19	0.60	0.63	0.64	0.85	1.20
LPS5030-473MR_	47.0	0.330	16	0.50	0.53	0.55	0.75	1.00
LPS5030-683MR_	68.0	0.440	12	0.40	0.43	0.44	0.65	0.900
LPS5030-823MR_	82.0	0.470	11	0.38	0.40	0.40	0.60	0.830
LPS5030-104MR_	100	0.600	10	0.27	0.31	0.32	0.55	0.750
LPS5030-124MR_	120	0.800	9	0.26	0.29	0.30	0.45	0.660
LPS5030-154MR_	150	0.860	7.5	0.22	0.25	0.263	0.42	0.570
LPS5030-224MR_	220	1.35	6.0	0.21	0.235	0.245	0.36	0.500
LPS5030-334MR_	330	1.80	5.0	0.155	0.155	0.200	0.32	0.420
LPS5030-474MR_	470	2.80	4.0	0.117	0.134	0.146	0.28	0.370
LPS5030-564MR_	560	3.20	3.6	0.110	0.130	0.140	0.23	0.320
LPS5030-684MR_	680	3.80	3.0	0.100	0.120	0.126	0.20	0.290
LPS5030-105MR_	1000	5.10	2.5	0.100	0.110	0.110	0.18	0.250
LPS5030-155MR_	1500	7.60	2.0	0.068	0.080	0.089	0.15	0.210
LPS5030-185MR_	1800	10.0	1.8	0.069	0.081	0.086	0.13	0.170
LPS5030-225MR_	2200	11.0	1.6	0.063	0.074	0.080	0.10	0.150
LPS5030-335MR_	3300	19.5	1.3	0.056	0.063	0.067	0.090	0.125
LPS5030-475MR_	4700	26.0	1.1	0.049	0.056	0.059	0.080	0.110

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

LPS5030-105MRC

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.
Click for temperature derating information.
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.
Click for temperature derating information.
7. Electrical specifications at 25°C.

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

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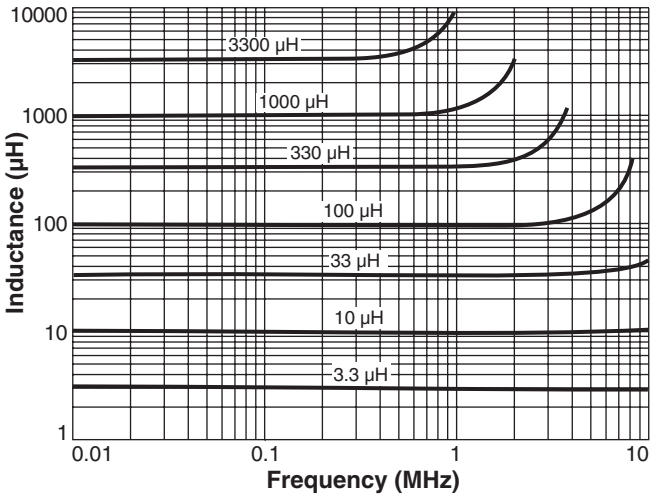
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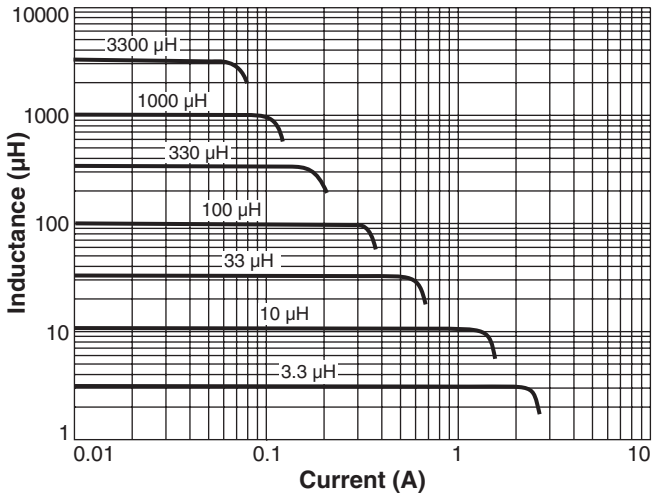
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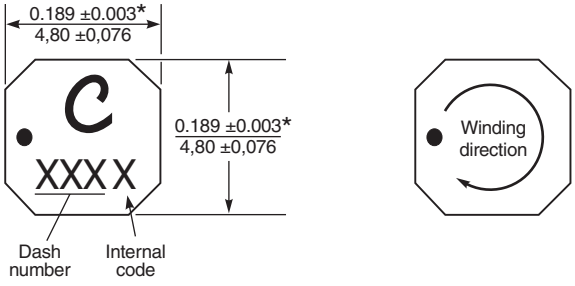
Shielded Power Inductors – LPS5030 Series

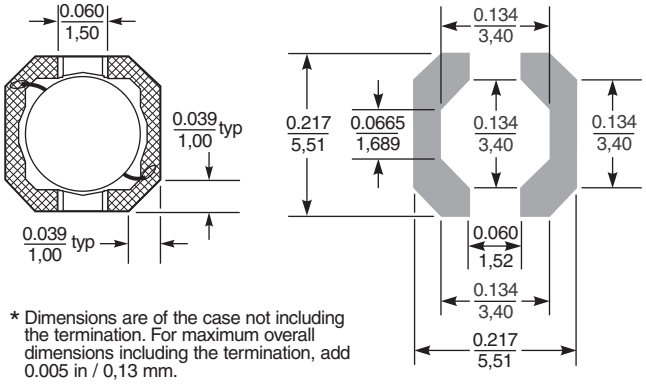
Typical L vs Frequency



Typical L vs Current





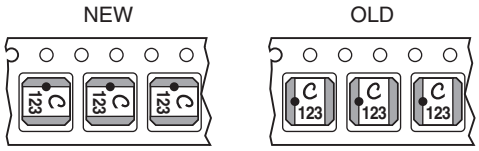


* Dimensions are of the case not including the termination. For maximum overall dimensions including the termination, add 0.005 in / 0,13 mm.
For optional tin-lead and tin-silver-copper terminations, dimensions are for the mounted part. Dimensions before mounting can be an additional 0.005 inch / 0,13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



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