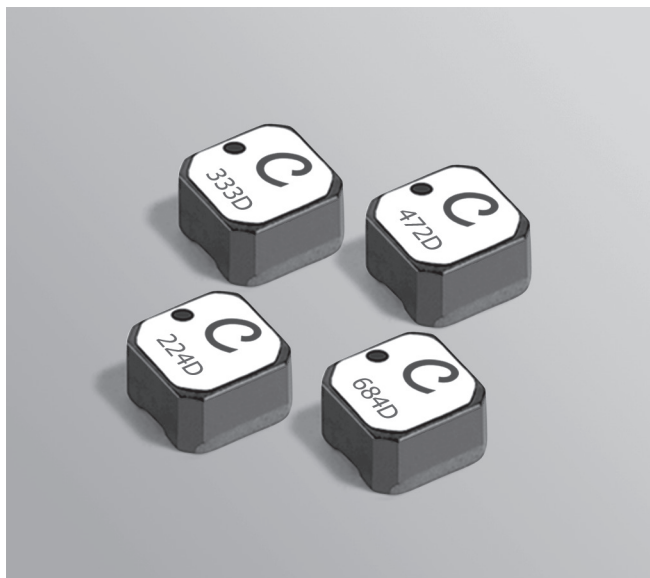




Shielded Power Inductors – LPS5030



- 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

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

Weight 226 – 244 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 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 Only pure water or alcohol recommended

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

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

LPS5030-105MLC

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 (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).

- Inductance tested at 100 kHz, 0.1 Vrms, 0 Adc using an Agilent/HP 4263B LCR meter or equivalent.
- DCR measured on a micro-ohmmeter.
- SRF measured using Agilent/HP 8753ES or equivalent.
- DC current at which the inductance drops the specified amount from its value without current.
- Current that causes the specified temperature rise from 25°C ambient.
- Electrical specifications at 25°C.
- Refer to Doc 362 "Soldering Surface Mount Components" before soldering.



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Document 581-1 Revised 01/23/12

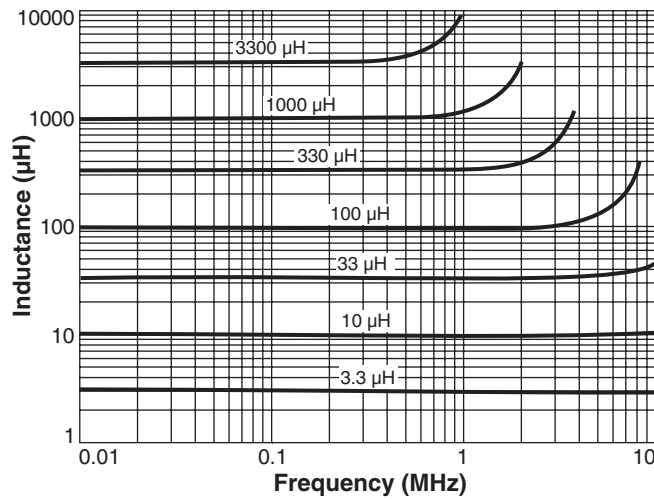
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This product may not be used in medical of high risk applications without prior Coilcraft approval. Specification subject to change without notice. Please check out web site for latest information.

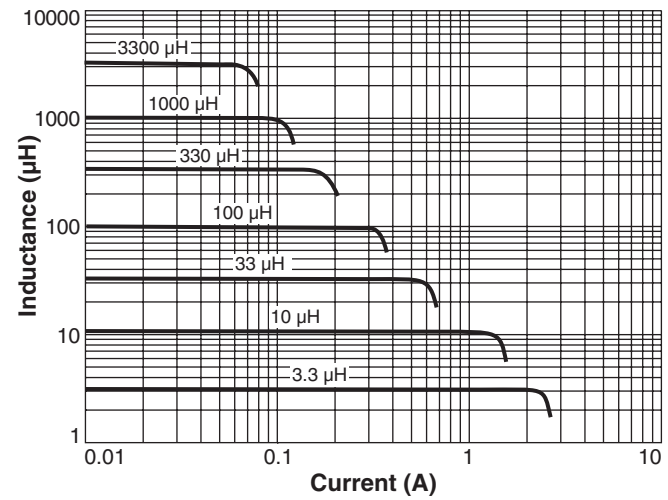


Shielded Power Inductors – LPS5030 Series

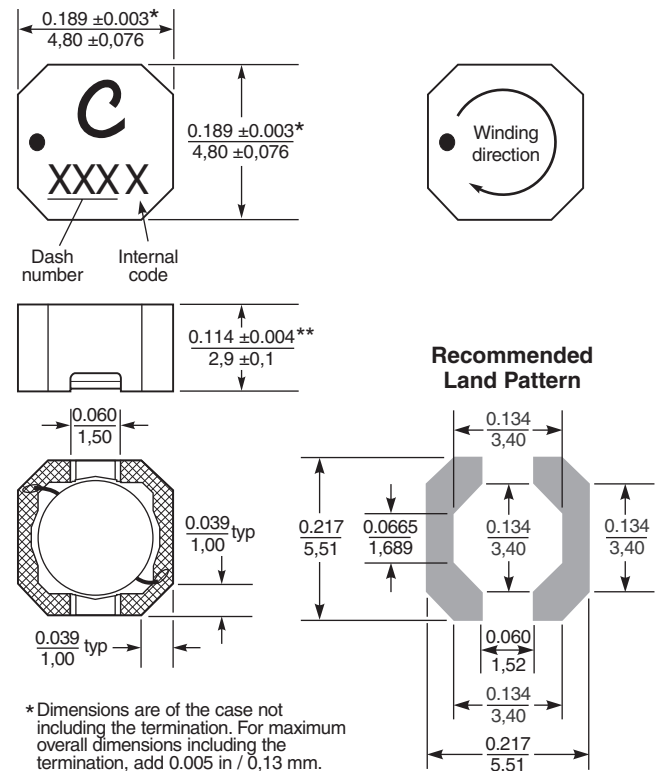
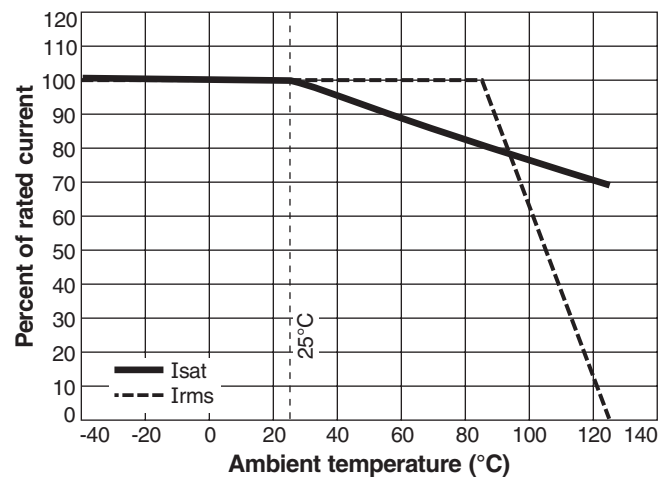
Typical L vs Frequency



Typical L vs Current



Typical Current Derating



* 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 $\frac{\text{inches}}{\text{mm}}$