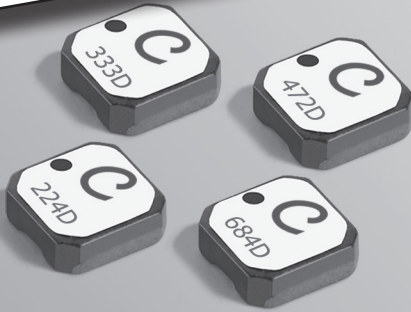




Shielded Power Inductors - LPS5015

Improved version now available.

These parts are not recommended for new designs. They are replaced by new lead free and halogen free versions which are identical in form, fit and function. See www.coilcraft.com/lps5015.cfm.



- Very low DCR; excellent current handling
- 5.0 × 5.0 mm footprint; less than 1.5 mm tall

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 102 – 107 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, 0.3 mm thick, 8 mm pocket spacing, 1.57 mm pocket depth (Refer to dimensional drawing for part orientation in tape.)

Recommended pick and place nozzle OD: 5 mm; ID: ≤ 2.5 mm

PCB washing Tested with pure water or alcohol only. For other solvents, see Doc787_PCB_Washing.pdf.

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
LPS5015-102ML_	1.0	0.050	183	3.6	3.8	3.9	1.90	2.65
LPS5015-132ML_	1.3	0.065	150	2.5	2.6	2.8	1.70	2.35
LPS5015-182ML_	1.8	0.075	128	2.6	2.8	2.9	1.50	2.15
LPS5015-222ML_	2.2	0.090	116	2.4	2.6	2.7	1.40	2.00
LPS5015-332ML_	3.3	0.125	88	1.9	2.0	2.0	1.30	1.80
LPS5015-472ML_	4.7	0.150	73	1.6	1.7	1.8	1.20	1.62
LPS5015-562ML_	5.6	0.175	67	1.6	1.6	1.6	1.10	1.45
LPS5015-682ML_	6.8	0.225	57	1.3	1.4	1.5	0.90	1.25
LPS5015-822ML_	8.2	0.280	49	1.3	1.3	1.4	0.85	1.05
LPS5015-103ML_	10	0.300	44	1.2	1.3	1.3	0.80	0.95
LPS5015-123ML_	12	0.350	40	1.0	1.1	1.2	0.75	0.84
LPS5015-153ML_	15	0.360	38	0.80	0.84	0.86	0.73	0.84
LPS5015-183ML_	18	0.550	35	0.75	0.77	0.80	0.70	0.83
LPS5015-223ML_	22	0.675	31	0.70	0.73	0.75	0.60	0.82
LPS5015-333ML_	33	0.750	24	0.55	0.59	0.60	0.50	0.70
LPS5015-473ML_	47	1.00	18	0.46	0.48	0.49	0.45	0.57
LPS5015-563ML_	56	1.13	17	0.40	0.43	0.45	0.40	0.52
LPS5015-683ML_	68	1.45	15	0.33	0.38	0.39	0.35	0.47
LPS5015-104ML_	100	1.95	12	0.30	0.33	0.34	0.30	0.42
LPS5015-124ML_	120	2.50	10	0.25	0.28	0.30	0.27	0.37
LPS5015-154ML_	150	3.40	9.3	0.23	0.25	0.26	0.25	0.33
LPS5015-224ML_	220	4.50	7.3	0.20	0.21	0.22	0.22	0.29
LPS5015-334ML_	330	7.40	5.7	0.15	0.17	0.18	0.17	0.22
LPS5015-474ML_	470	7.50	4.9	0.12	0.12	0.13	0.16	0.21
LPS5015-564ML_	560	8.50	4.3	0.10	0.11	0.12	0.14	0.190
LPS5015-684ML_	680	10.6	4.0	0.10	0.11	0.11	0.13	0.175
LPS5015-105ML_	1000	15.0	3.2	0.080	0.090	0.093	0.10	0.150
LPS5015-155ML_	1500	25.0	2.5	0.080	0.086	0.088	0.090	0.140
LPS5015-185ML_	1800	28.0	2.2	0.078	0.083	0.086	0.085	0.130
LPS5015-225ML_	2200	36.0	2.1	0.072	0.078	0.080	0.065	0.090
LPS5015-335ML_	3300	55.0	1.7	0.064	0.072	0.076	0.055	0.075
LPS5015-475ML_	4700	80.0	1.4	0.062	0.069	0.072	0.045	0.065

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

LPS5015-335MLC

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. Factory order only, not stocked (3500 parts per full reel).

- Inductance tested at 100 kHz, 0.1 Vrms using an Agilent/HP 4192A.
- DCR measured on a micro-ohmmeter.
- SRF measured using Agilent/HP 8753ES or equivalent.
- DC current that causes the specified inductance drop 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 585NR-1 Revised 12/08/11

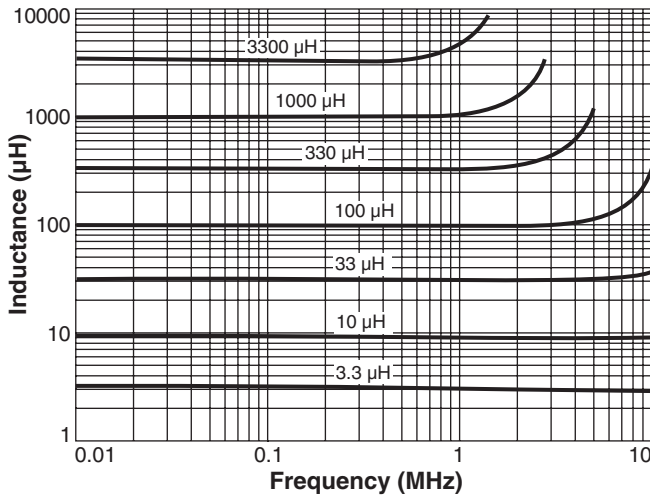
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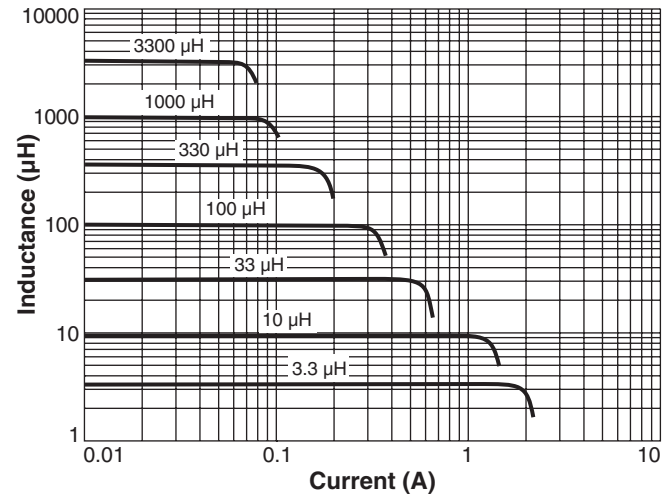


Shielded Power Inductors - LPS5015 Series

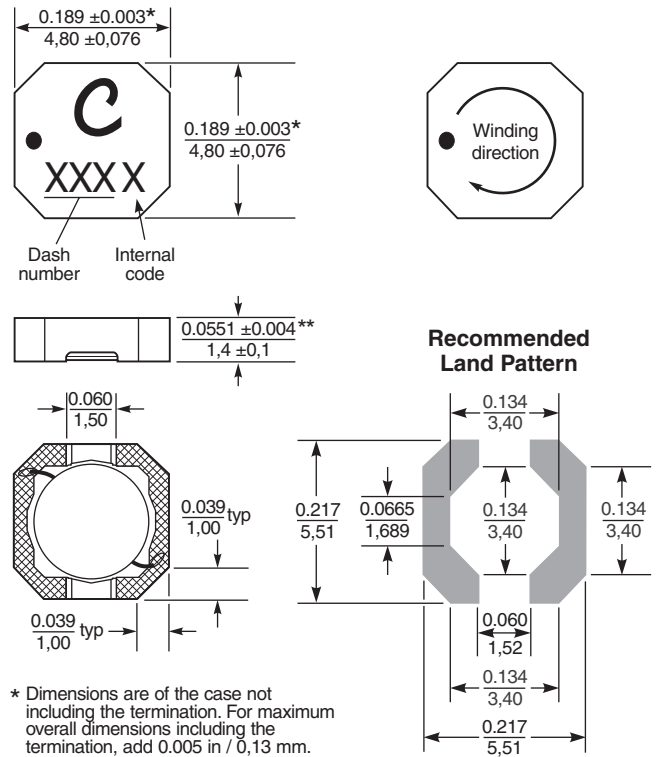
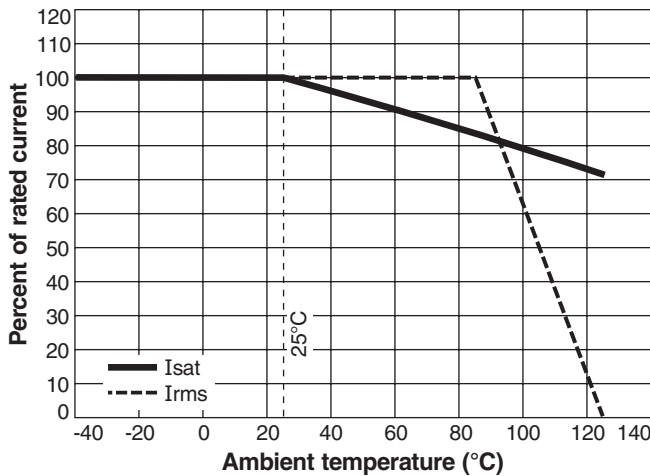
Typical L vs Frequency



Typical L vs Current



Typical Current Derating



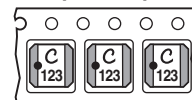
* Dimensions are of the case not including the termination. For maximum overall dimensions including the termination, add 0.005 in / 0.13 mm.

**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 inches/mm

Packaging 1000/7" reel; 3500/13" reel Plastic tape: 12 mm wide, 0.3 mm thick, 8 mm pocket spacing, 1.57 mm pocket depth

Orientation of parts in packaging tape



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