

**NEW!**

# Shielded Power Inductors—LPS5015 Series



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

**Designer's Kit C350** contains 3 each of all values

**Core material** Ferrite

**Core and winding loss** See [www.coilcraft.com/coreloss](http://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  $I_{rms}$  current, +85°C to +125°C with derated current

**Storage temperature** Component: –40°C to +125°C.

Packaging: –55°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)

**Mean Time Between Failures (MTBF)** 26,315,789 hours

**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

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

**PCB washing** Only pure water or alcohol recommended

Part number <sup>1</sup>	Inductance <sup>2</sup> ±20% (µH)	DCR max <sup>3</sup> (Ohms)	SRF typ <sup>4</sup> (MHz)	Isat (A) <sup>5</sup>			Irms (A) <sup>6</sup>	
				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	0.080	0.120
LPS5015-335ML_	3300	55.0	1.7	0.064	0.072	0.076	0.075	0.115
LPS5015-475ML_	4700	80.0	1.4	0.062	0.069	0.072	0.070	0.110

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).

2. Inductance tested at 100 kHz, 0.1 Vrms using an Agilent/HP 4192A.
3. DCR measured on a micro-ohmmeter.
4. SRF measured using Agilent/HP 8753ES or equivalent.
5. DC current that causes the specified inductance drop from its value without current.
6. Current that causes the specified temperature rise from 25°C ambient.
7. Electrical specifications at 25°C.  
See Qualification Standards section for environmental and test data.  
Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

## Coilcraft®

Specifications subject to change without notice.  
Please check our website for latest information.

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1102 Silver Lake Road Cary, Illinois 60013 Phone 847/639-6400 Fax 847/639-1469

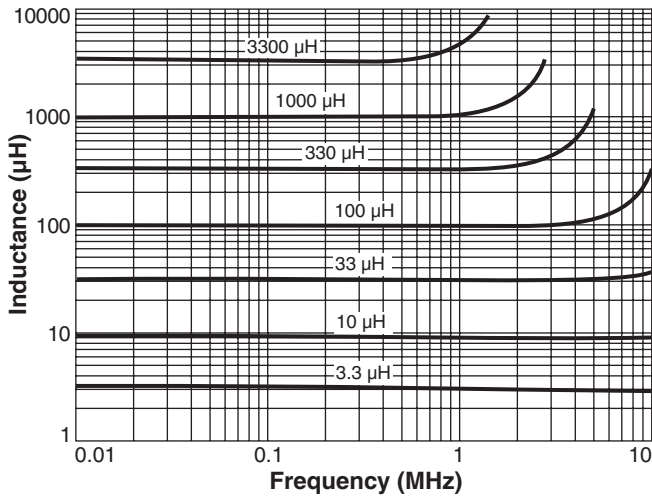
E-mail [info@coilcraft.com](mailto:info@coilcraft.com) Web <http://www.coilcraft.com>



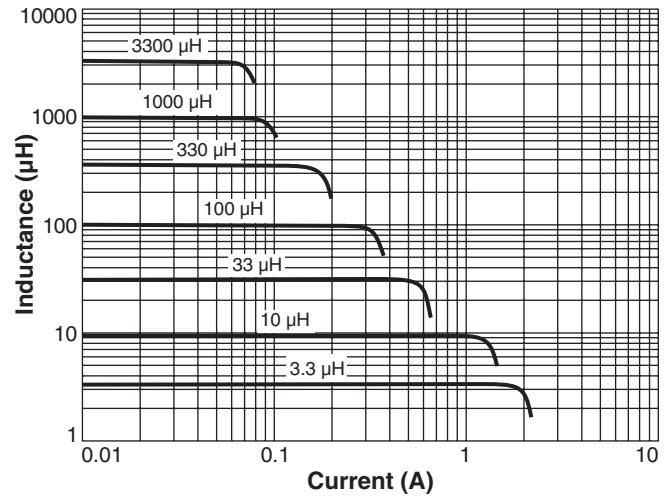
**NEW!**

# Shielded SMT Power Inductors – LPS5015 Series

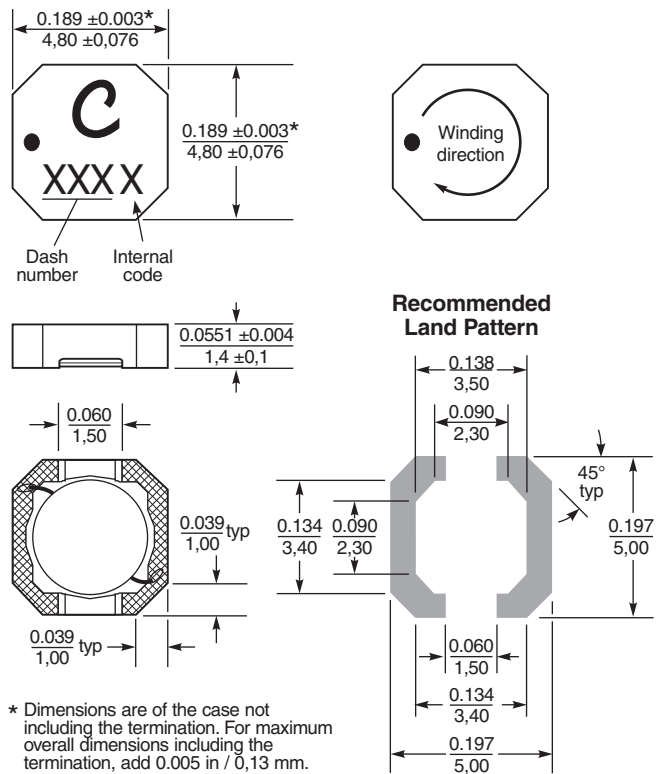
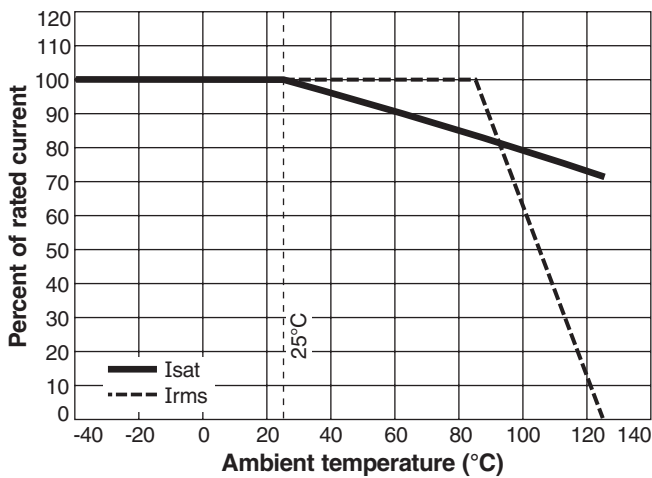
## Typical L vs Frequency



## 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.

Dimensions are in  $\frac{\text{inches}}{\text{mm}}$



Specifications subject to change without notice. Please check our website for latest information.

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1102 Silver Lake Road Cary, Illinois 60013 Phone 847/639-6400 Fax 847/639-1469

E-mail [info@coilcraft.com](mailto:info@coilcraft.com) Web <http://www.coilcraft.com>