

Shielded Power Inductors – LPS3314



- Very low DCR; excellent current handling
- Miniature 3.3 × 3.3 mm footprint; less than 1.4 mm tall

Designer's Kit C330 contains 3 each of all values

Core material Ferrite

Core and winding loss See www.coilcraft.com/coreloss

Environmental RoHS compliant, halogen free

Terminations RoHS compliant matte tin over nickel over silver. Other terminations available at additional cost.

Weight 44.1 – 46.5 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, 1.52 mm pocket depth

Recommended pick and place nozzle OD: 3.3 mm; ID: ≤ 1.65 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			Irms (A) ⁶	
				10% drop	20% drop	30% drop	20°C rise	40°C rise
LPS3314-102MR_	1.0	0.062	215	1.8	1.9	2.0	1.6	2.10
LPS3314-222MR_	2.2	0.100	140	1.3	1.4	1.5	1.2	1.60
LPS3314-332MR_	3.3	0.145	115	1.1	1.2	1.3	1.0	1.35
LPS3314-472MR_	4.7	0.175	86	0.97	0.99	1.0	0.90	1.25
LPS3314-562MR_	5.6	0.220	74	0.92	0.95	0.98	0.82	1.10
LPS3314-682MR_	6.8	0.240	72	0.87	0.90	0.91	0.82	1.10
LPS3314-822MR_	8.2	0.270	60	0.58	0.75	0.78	0.70	1.00
LPS3314-103MR_	10	0.330	55	0.56	0.66	0.70	0.65	0.87
LPS3314-153MR_	15	0.440	45	0.46	0.56	0.59	0.62	0.82
LPS3314-183MR_	18	0.575	37	0.44	0.51	0.54	0.52	0.68
LPS3314-223MR_	22	0.720	34	0.44	0.48	0.49	0.45	0.60
LPS3314-333MR_	33	0.920	27	0.30	0.38	0.40	0.43	0.58
LPS3314-473MR_	47	1.40	22	0.28	0.33	0.34	0.35	0.47
LPS3314-563MR_	56	1.55	19	0.26	0.30	0.31	0.32	0.42
LPS3314-683MR_	68	1.80	17	0.22	0.26	0.29	0.30	0.40
LPS3314-823MR_	82	2.00	14	0.20	0.24	0.26	0.29	0.39
LPS3314-104MR_	100	2.75	13	0.19	0.23	0.24	0.24	0.32
LPS3314-124MR_	120	3.45	11	0.19	0.21	0.22	0.22	0.30
LPS3314-154MR_	150	4.10	10	0.16	0.19	0.20	0.20	0.27
LPS3314-184MR_	180	4.80	9.0	0.14	0.17	0.18	0.19	0.25
LPS3314-224MR_	220	6.00	7.0	0.14	0.16	0.17	0.16	0.22
LPS3314-334MR_	330	9.30	6.0	0.11	0.12	0.13	0.13	0.18
LPS3314-474MR_	470	12.0	4.5	0.080	0.11	0.11	0.12	0.16
LPS3314-564MR_	560	14.0	4.5	0.095	0.105	0.11	0.11	0.145
LPS3314-684MR_	680	18.5	4.0	0.092	0.100	0.105	0.095	0.125
LPS3314-824MR_	820	24.0	3.7	0.086	0.099	0.100	0.085	0.110

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

LPS3314-824MR_C

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 (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, 0 Adc using an Agilent/HP 4192A impedance analyzer or equivalent. Inductance at 1 MHz is the same for parts with SRF ≥10 MHz.

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.

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



www.coilcraft.com

US +1-847-639-6400 sales@coilcraft.com

UK +44-1236-730595 sales@coilcraft-europe.com

Taiwan +886-2-2264 3646 sales@coilcraft.com.tw

China +86-21-6218 8074 sales@coilcraft.com.cn

Singapore + 65-6484 8412 sales@coilcraft.com.sg

Document 541-1 Revised 08/02/13

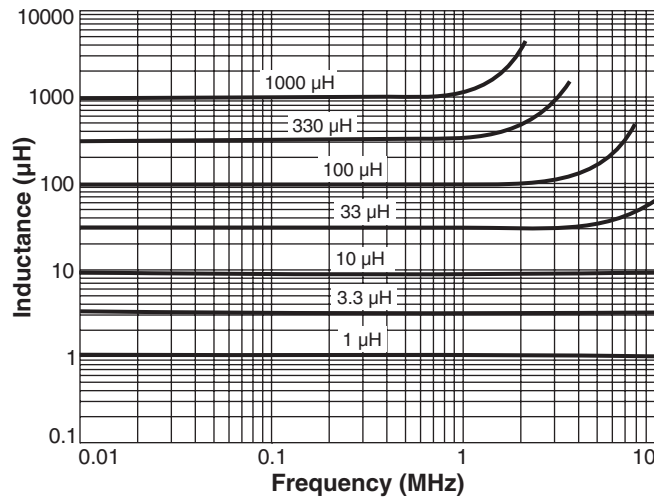
© Coilcraft Inc. 2015

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

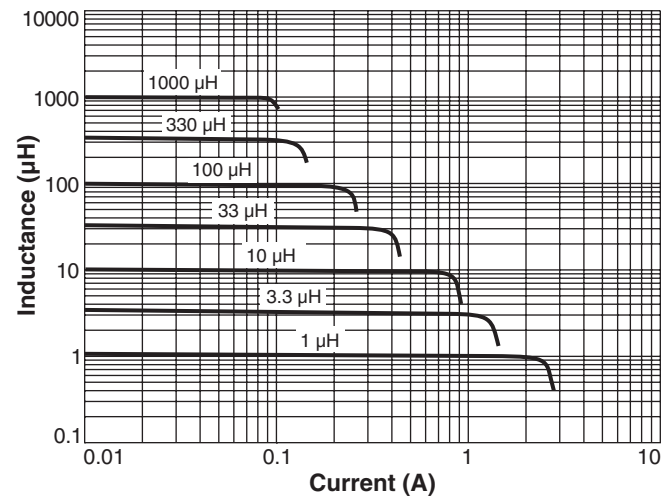


Shielded Power Inductors – LPS3314 Series

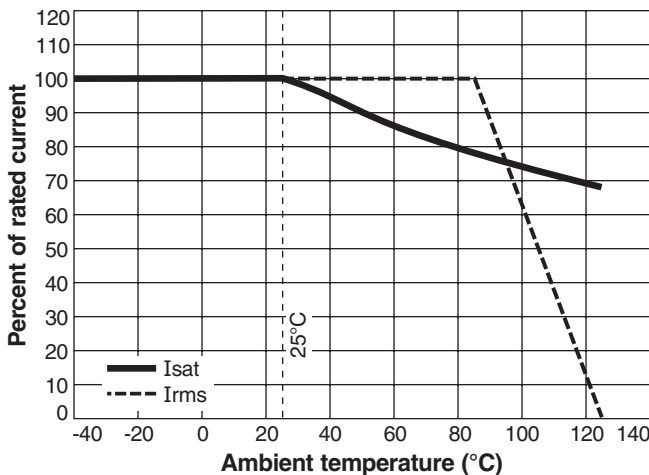
Typical L vs Frequency



Typical L vs Current

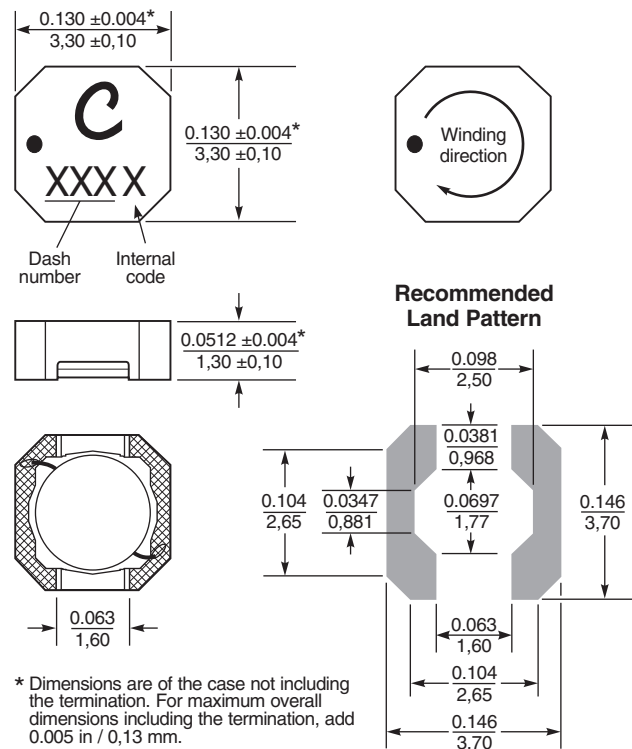
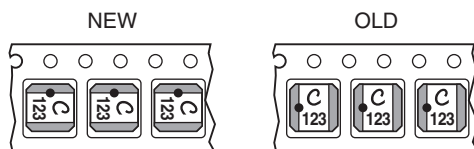


Current Derating



Packaging 1000/7" reel; 3500/13" reel Plastic tape: 12 mm wide, 0.3 mm thick, 8 mm pocket spacing, 1.52 mm pocket depth

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



* 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

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Coilcraft:

[LPS3314-105MLB](#) [LPS3314-222MLC](#) [LPS3314-155MLC](#) [LPS3314-105MLC](#) [LPS3314-102MLC](#) [LPS3314-155MLB](#)
[LPS3314-102MLB](#) [LPS3314-222MLB](#) [LPS3314-102MRB](#) [LPS3314-222MRB](#) [LPS3314-823MRC](#) [LPS3314-682MRB](#)
[LPS3314-184MRC](#) [LPS3314-334MRB](#) [LPS3314-333MRC](#) [LPS3314-473MRB](#) [LPS3314-104MRC](#) [LPS3314-154MRC](#)
[LPS3314-223MRC](#) [LPS3314-332MRB](#) [LPS3314-472MRB](#) [LPS3314-183MRB](#) [LPS3314-684MRB](#) [LPS3314-](#)
[684MRC](#) [LPS3314-822MRC](#) [LPS3314-823MRB](#) [LPS3314-824MRB](#) [LPS3314-824MRC](#) [LPS3314-562MRC](#)
[LPS3314-563MRC](#) [LPS3314-564MRB](#) [LPS3314-564MRC](#) [LPS3314-682MRC](#) [LPS3314-683MRB](#) [LPS3314-332MRC](#)
[LPS3314-333MRB](#) [LPS3314-334MRC](#) [LPS3314-472MRC](#) [LPS3314-473MRC](#) [LPS3314-474MRC](#) [LPS3314-](#)
[154MRB](#) [LPS3314-183MRC](#) [LPS3314-184MRB](#) [LPS3314-223MRB](#) [LPS3314-224MRB](#) [LPS3314-224MRC](#)
[LPS3314-103MRC](#) [LPS3314-104MRB](#) [LPS3314-124MRB](#) [LPS3314-124MRC](#) [LPS3314-153MRB](#) [LPS3314-153MRC](#)
[LPS3314-562MRB](#) [LPS3314-683MRC](#) [LPS3314-563MRB](#) [LPS3314-822MRB](#) [LPS3314-474MRB](#) [LPS3314-](#)
[103MRB](#)