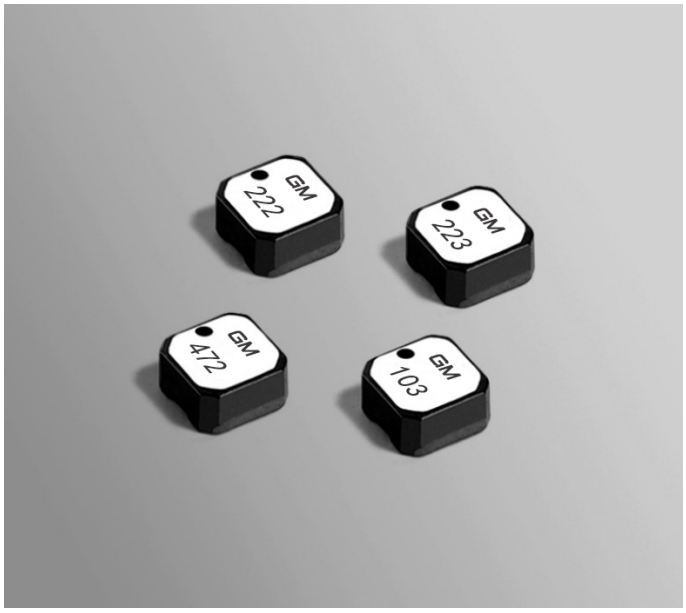
Shielded Power Inductors – LP3314



- Very low DCR; excellent current handling
- Miniature 3.3 × 3.3 mm footprint; less than1.4 mm tall

Designer's Kit C330 contains 3 each of all values
Core material Ferrite
Core and winding loss
Environmental RoHS compliant, halogen free
Terminations RoHS compliant matte tin over nickel over silver. Other terminations available at additional cost.
Weight 37.3 – 57.3 mg
Ambient temperature –40°C to +85°C with (40°C rise) Irms current.
Maximum part temperature +125°C (ambient + temp rise).
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.

Part number	Inductance ±20% (µH)	DCR max (Ohms)	SRF typ (MHz)	Isat (A) 10% drop	Isat (A) 20% drop	Isat (A) 30% drop	Irms (A) 20°C rise	Irms (A) 40°C rise
LP3314-102MR_	1.0	0.062	215	1.8	1.9	2.0	1.6	2.10
LP3314-222MR_	2.2	0.100	140	1.3	1.4	1.5	1.2	1.60
LP3314-332MR_	3.3	0.145	115	1.1	1.2	1.3	1.0	1.35
LP3314-472MR_	4.7	0.175	86	0.97	0.99	1.0	0.90	1.25
LP3314-562MR_	5.6	0.220	74	0.92	0.95	0.98	0.82	1.10
LP3314-682MR_	6.8	0.240	72	0.87	0.90	0.91	0.82	1.10
LP3314-822MR_	8.2	0.270	60	0.58	0.75	0.78	0.70	1.00
LP3314-103MR_	10	0.330	55	0.56	0.66	0.70	0.65	0.87
LP3314-153MR_	15	0.440	45	0.44	0.56	0.59	0.62	0.82
LP3314-183MR_	18	0.575	37	0.60	0.51	0.69	0.52	0.68
LP3314-223MR_	22	0.720	34	0.44	0.48	0.49	0.45	0.60
LP3314-333MR_	33	0.920	27	0.30	0.38	0.40	0.43	0.58
LP3314-473MR_	47	1.40	22	0.28	0.33	0.34	0.35	0.47
LP3314-563MR_	56	1.55	19	0.26	0.30	0.31	0.32	0.42
LP3314-683MR_	68	1.80	17	0.22	0.26	0.29	0.30	0.40
LP3314-823MR_	82	2.00	14	0.20	0.24	0.26	0.29	0.39
LP3314-104MR_	100	2.75	13	0.19	0.23	0.24	0.24	0.32
LP3314-124MR_	120	3.45	11	0.19	0.21	0.22	0.22	0.30
LP3314-154MR_	150	4.10	10	0.16	0.19	0.20	0.20	0.27
LP3314-184MR_	180	4.80	9.0	0.14	0.17	0.18	0.19	0.25
LP3314-224MR_	220	6.00	7.0	0.14	0.16	0.17	0.16	0.22
LP3314-334MR_	330	9.30	6.0	0.11	0.12	0.13	0.13	0.18
LP3314-474MR_	470	12.0	4.5	0.10	0.11	0.11	0.12	0.16
LP3314-564MR_	560	14.0	4.5	0.095	0.105	0.11	0.11	0.145
LP3314-684MR_	680	18.5	4.0	0.092	0.100	0.105	0.095	0.125
LP3314-824MR_	820	24.0	3.7	0.086	0.099	0.100	0.085	0.110
LP3314-105MR_	1000	31.0	3.0	0.090	0.099	0.100	0.082	0.110
LP3314-155MR_	1500	44.0	2.7	0.080	0.086	0.090	0.060	0.080

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

LP3314-824MRC

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 at 25°C that causes the specified inductance drop from its value without current.
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.
7. Electrical specifications at 25°C.

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

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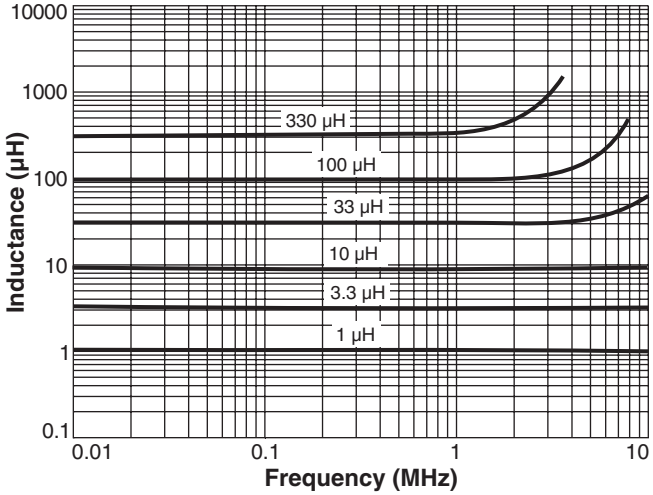
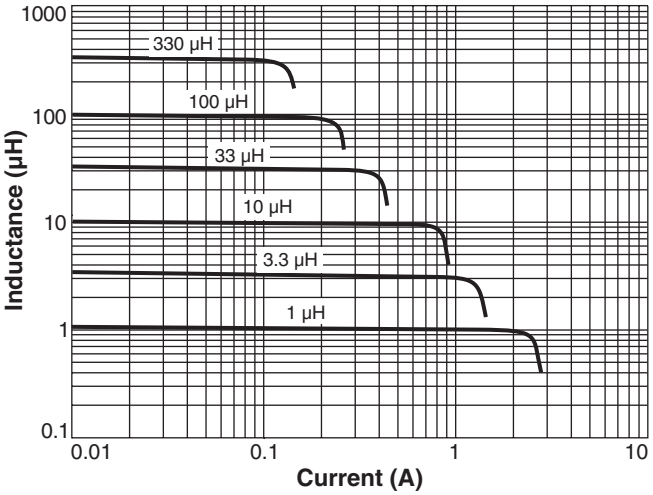
Please check web site for latestinformation.

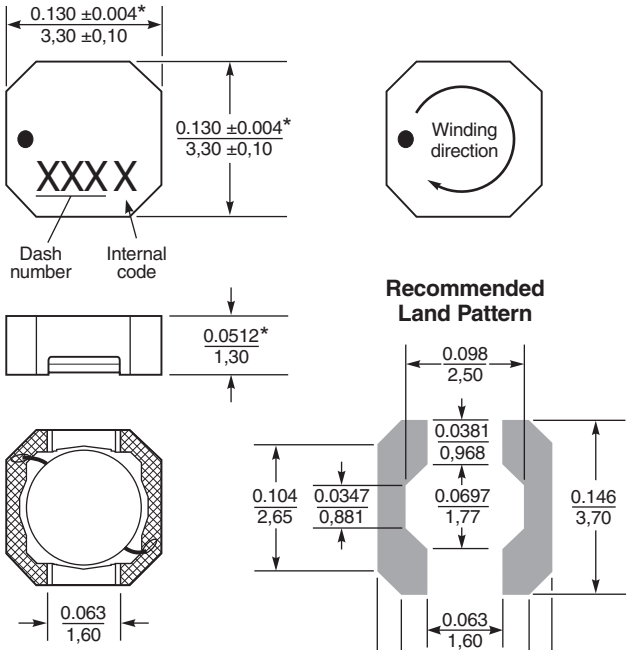
Shielded Power Inductors – LP3314 Series

Typical L vs Frequency



Typical L vs Current



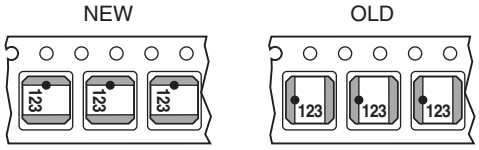


* Height dimension tolerance is +0.004 in/0,10 mm,–0.006 in/0,15 mm. For optional tin-lead and tin-silver-copper terminations, dimensions are for the mounted part. Dimensions before mounting can be an additional 0.005 inch (0,13 mm).

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, 1.52 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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