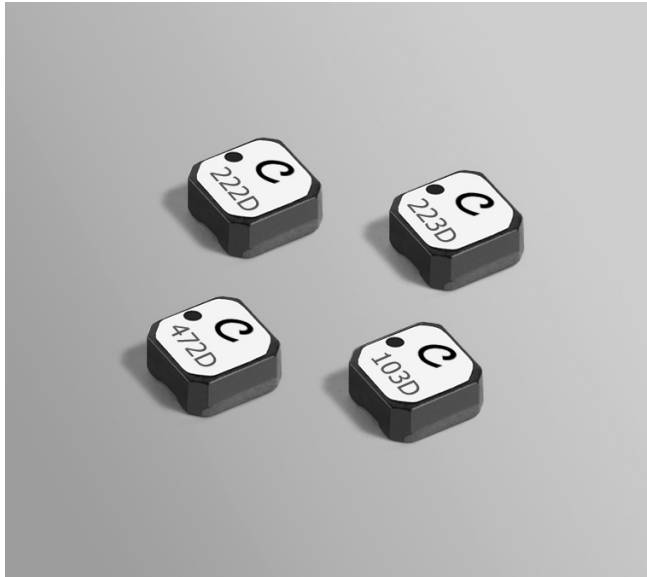


Shielded Power Inductors - LPS3314



- 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 (40°C rise) Irms current.

Maximum part temperature +125°C (ambient + temp rise). [Derating](#).

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 | 0.10 | 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.

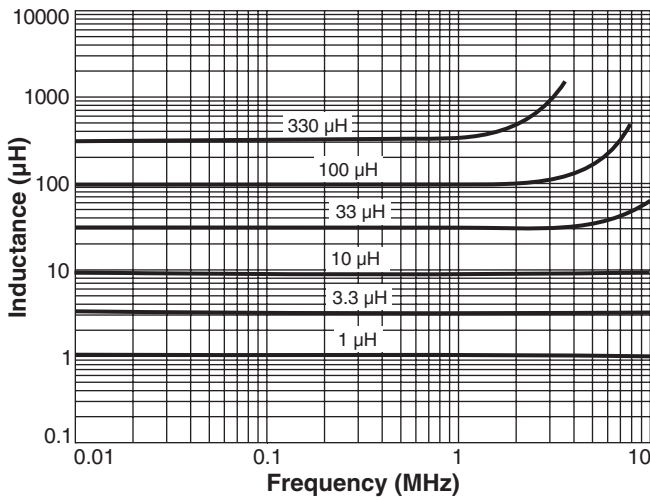
D= 13" machine-ready reel. EIA-481 embossed plastic tape. Factory order only, not stocked (3500 parts per full reel).

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 at 25°C that causes the specified inductance drop from its value without current. [Click for temperature derating information.](#)
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. [Click for temperature derating information.](#)
7. Electrical specifications at 25°C. Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

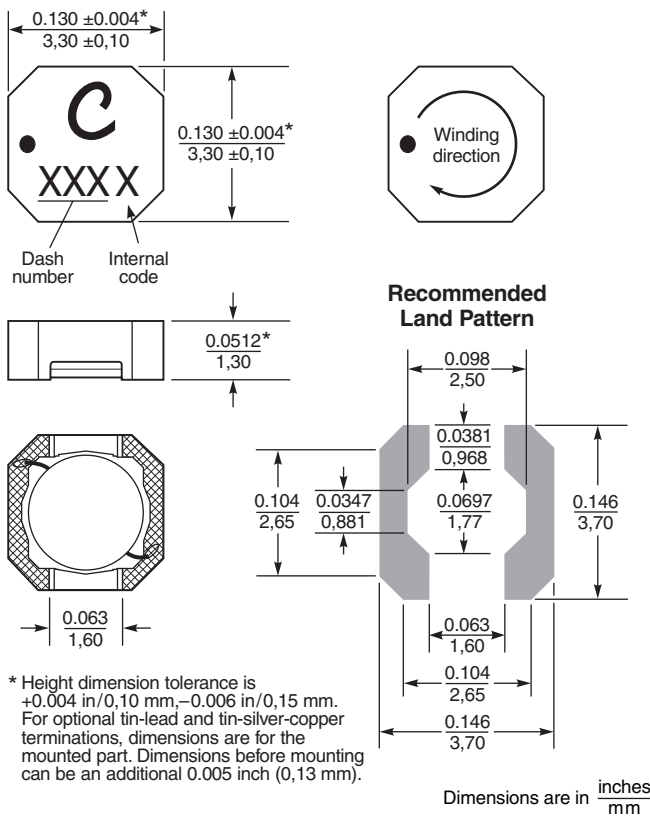
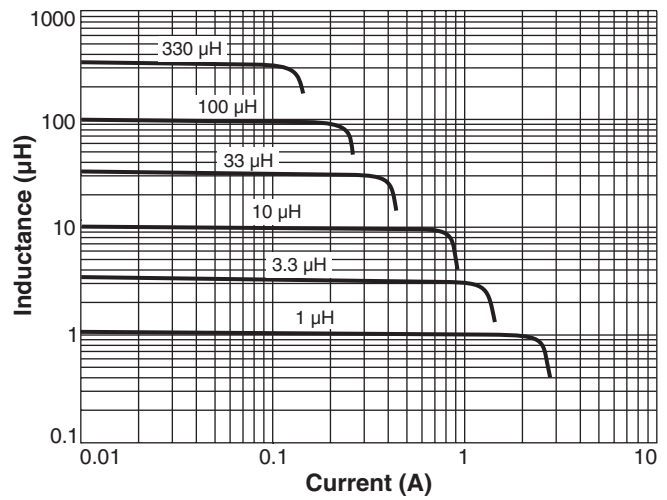


Shielded Power Inductors – LPS3314 Series

Typical L vs Frequency

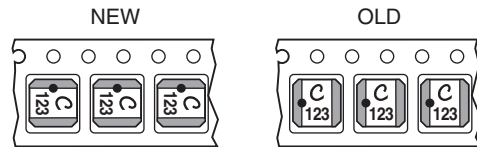


Typical L vs Current



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.



* 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).