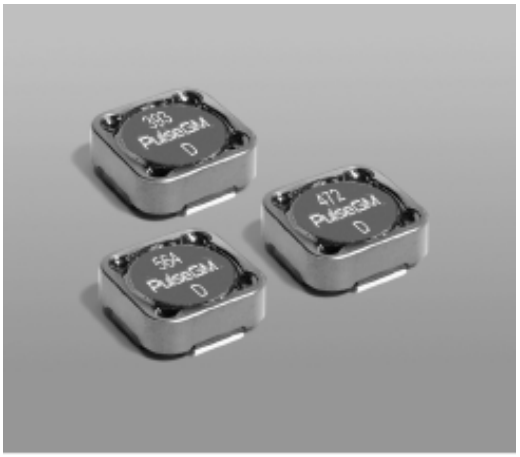
Shielded Power Inductors – RH124



- 12 × 12 mm footprint; 4.6 mm high shielded inductors
- Very low DCR and excellent current handling

Designer's Kit C410 contains 3 each of all values.
Core material Ferrite
Core and winding loss
Terminations RoHS compliant matte tin over nickel over phos bronze. Other terminations available at additional cost.
Weight: 2.3 g – 2.5 g
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 200/7″ reel; 800/13″ reel; Plastic tape: 24 mm wide, 0.35 mm thick, 16 mm pocket spacing, 4.7 mm pocket depth
PCB washing Tested to MIL-STD-202 Method 215 plus an additional aqueous wash.

Part number	Inductance (µH)	DCR (mOhms) typ	DCR (mOhms) max	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
RH124-102ML_	1.0 ±20%	5.84	6.60	100	18.4	19.4	19.9	6.00	8.00
RH124-472ML_	4.7 ±20%	19.1	21.3	42	8.52	9.42	9.86	4.50	6.00
RH124-562ML_	5.6 ±20%	22.1	24.6	37	7.64	8.66	9.28	4.19	5.75
RH124-682ML_	6.8 ±20%	24.9	27.7	33	6.52	7.34	7.82	3.80	5.20
RH124-822ML_	8.2 ±20%	27.4	30.5	31	5.98	6.80	7.34	3.55	4.87
RH124-103ML_	10 ±20%	36.8	40.9	27	5.72	6.44	6.84	3.30	4.20
RH124-123ML_	12 ±20%	38.9	43.3	24	5.02	5.76	6.22	3.00	3.95
RH124-153ML_	15 ±20%	48.6	54.1	22	4.58	5.24	5.54	2.85	3.80
RH124-183ML_	18 ±20%	51.0	56.7	19.0	4.28	4.78	5.14	2.71	3.52
RH124-223ML_	22 ±20%	60.3	67.0	18.0	3.76	4.24	4.50	2.50	3.40
RH124-273ML_	27 ±20%	67.5	75.0	16.0	3.46	3.92	4.18	2.16	2.96
RH124-333ML_	33 ±20%	81.7	90.8	15.0	3.14	3.54	3.78	1.90	2.60
RH124-393ML_	39 ±20%	95.2	105.8	13.3	2.72	3.14	3.38	1.73	2.39
RH124-473ML_	47 ±20%	120.6	134.0	12.0	2.66	3.06	3.24	1.50	2.10
RH124-563ML_	56 ±20%	133.8	148.7	10.6	2.34	2.64	2.80	1.44	2.01
RH124-683ML_	68 ±20%	167.3	185.9	9.7	2.10	2.40	2.56	1.30	1.80
RH124-823ML_	82 ±20%	188.5	209.5	8.8	1.80	2.06	2.24	1.24	1.72
RH124-104ML_	100 ±20%	216.8	240.9	8.0	1.64	1.86	2.04	1.20	1.60
RH124-124KL_	120 ±10%	287.2	319.2	7.2	1.62	1.82	1.92	1.03	1.42
RH124-154KL_	150 ±10%	326.7	363.0	6.6	1.36	1.58	1.70	0.95	1.30
RH124-184KL_	180 ±10%	379.5	421.7	5.9	1.34	1.48	1.60	0.89	1.21
RH124-224KL_	220 ±10%	488.2	542.5	5.3	1.18	1.30	1.40	0.76	1.00
RH124-274KL_	270 ±10%	560.1	622.4	4.7	1.04	1.18	1.24	0.72	0.95
RH124-334KL_	330 ±10%	731.4	812.7	4.1	1.00	1.10	1.20	0.65	0.87
RH124-394KL_	390 ±10%	813.7	904.2	3.8	0.91	1.00	1.08	0.59	0.79
RH124-474KL_	470 ±10%	935.1	1039	3.5	0.81	0.92	0.98	0.56	0.76
RH124-564KL_	560 ±10%	1193	1326	3.0	0.76	0.85	0.90	0.50	0.67
RH124-684KL_	680 ±10%	1370	1523	2.8	0.68	0.77	0.82	0.46	0.62
RH124-824KL_	820 ±10%	1590	1767	2.6	0.61	0.70	0.75	0.43	0.58
RH124-105KL_	1000 ±10%	2090	2323	2.4	0.56	0.63	0.68	0.36	0.50

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

RH124-105KLC

Termination: L = RoHS compliant matte tin over nickel over phos bronze. 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 (200 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 (800 parts per full reel).

2. Inductance measured at 100 kHz, 0.1 Vrms, 0 Adc using a PulseGM SMD-A fixture in an Agilent/HP 4263B LCR meter or equivalent.
3. DCR measured on a micro-ohmmeter and a PulseGM CCF858 test fixture.
4. SRF measured using an Agilent/HP 8753D network analyzer and a PulseGM SMD-D test fixture.
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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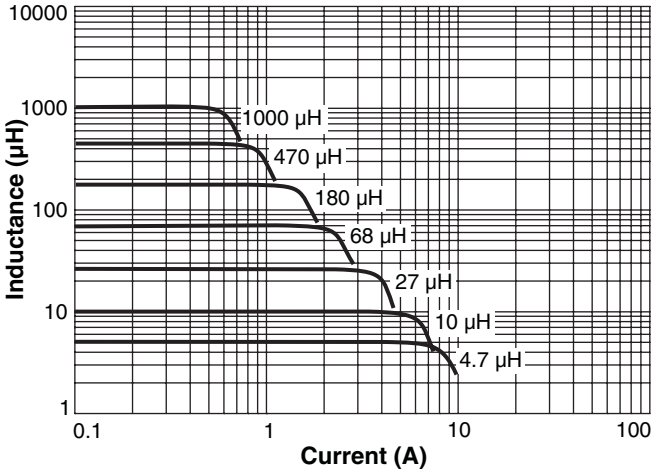
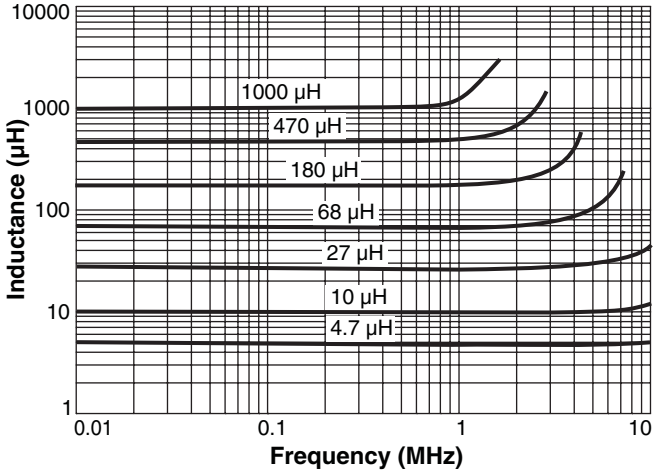
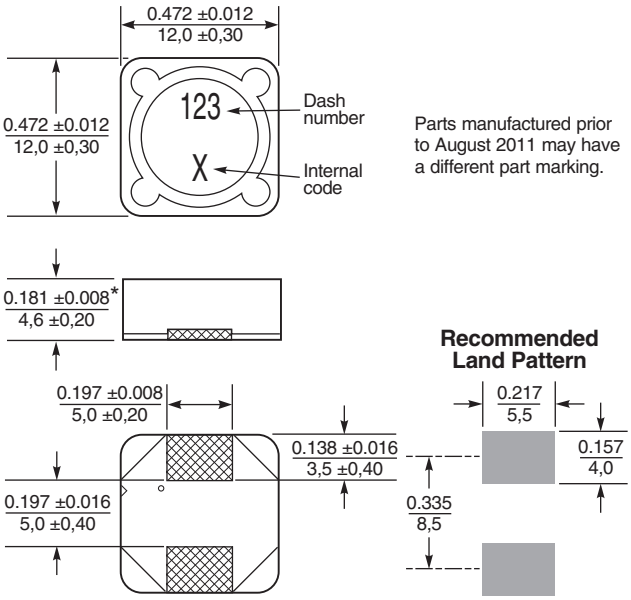
Typical L vs Current



Typical L vs Frequency





Parts manufactured prior to August 2011 may have a different part marking.

* For optional tin-lead and tin-silver-copper terminations, dimensions are for the mounted part. Dimensions before mounting can be an additional 0.012 inch (0,3 mm).

Dimensions are in inches / mm

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Specification subject to change without notice.
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