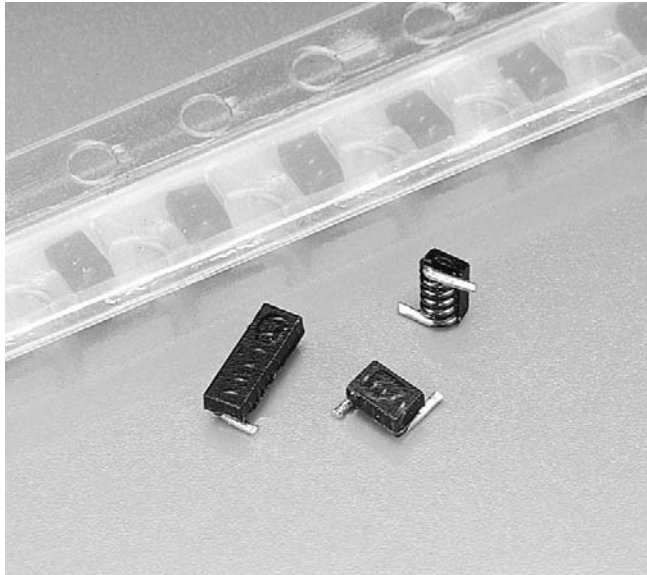




Micro Spring™ Air Core Inductors



- Small air core inductors feature high Q and tight tolerances
- Acrylic jacket provides a flat top for pick and place
- Solder coated leads ensure reliable soldering

Terminations RoHS compliant tin-silver over copper Other terminations available at additional cost.

Weight 0906: 10–12 mg; 1606: 18–27 mg

Ambient temperature –40°C to +125°C with Irms current, +125°C to +140°C with derated current

Storage temperature Component: –40°C to +140°C. 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

Temperature Coefficient of Inductance (TCL) +5 to +70 ppm/°C

Moisture Sensitivity Level (MSL) 1 (unlimited floor life at <30°C / 85% relative humidity)

Failures in Time (FIT) / Mean Time Between Failures (MTBF)

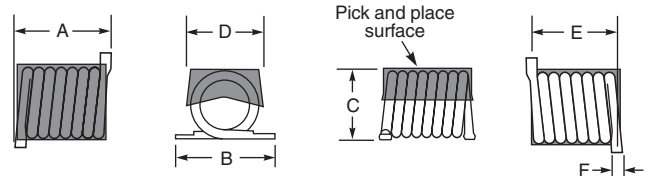
One per billion hours / one billion hours, calculated per Telcordia SR-332

Packaging 0906: 500 per 7" reel Plastic tape: 8 mm wide, 0.3 mm thick, 4 mm pocket spacing, 1.5 mm pocket depth

1606: 500 per 7" reel Plastic tape: 12 mm wide, 0.3 mm thick, 4 mm pocket spacing, 1.6 mm pocket depth

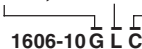
PCB washing Only pure water or alcohol recommended

Part number ¹	Turns	L ² (nH)	Percent tol ³	Q ⁴ min	SRF min ⁵ (GHz)	DCR max ⁶ (mOhm)	Irms ⁷ (A)
0906-2KL_	2	1.65	10	100	10.0	4.0	1.6
0906-3_L_	3	2.55	5,2,1	100	8.2	5.0	1.6
0906-4_L_	4	3.85	5,2,1	100	7.5	6.0	1.6
0906-5_L_	5	5.40	5,2,1	100	7.0	8.0	1.6
1606-6_L_	6	5.60	5,2,1	100	6.5	9.0	1.6
1606-7_L_	7	7.15	5,2,1	100	6.0	10	1.6
1606-8_L_	8	8.80	5,2,1	100	6.0	12	1.6
1606-9_L_	9	9.85	5,2,1	100	5.2	13	1.6
1606-10_L_	10	12.55	5,2,1	100	4.6	14	1.6



Size	A max	B max	C max	D	E	F max
0906	0.095 2,41	0.135 3,43	0.060 1,52	0.055 ±0.010 1,40 ±0,25	0.072 ±0.010 1,83 ±0,25	0.020 0,51
1606	0.165 4,19	0.135 3,43	0.062 1,58	0.055 ±0.010 1,40 ±0,25	0.144 ±0.012 3,66 ±0,30	0.020 0,51

1. When ordering, specify **tolerance, termination and packaging** codes:



Tolerance: F = 1% G = 2% J = 5% K = 10% (Table shows stock tolerances in bold.)

Termination: L = RoHS compliant tin-silver (96.5/3.5) over copper. 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, 500 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.

2. Inductance measured at 800 MHz using Agilent/HP 4286 with Coilcraft SMD-A fixture and correlation.

3. Tolerances in bold are stocked for immediate shipment.

4. Q measured at 800 MHz using an Agilent/HP 4291A with an Agilent/HP 16193A test fixture.

5. SRF measured using an Agilent/HP 8720D with a Coilcraft SMD-D fixture.

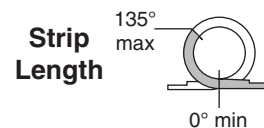
6. DCR tested on the Cambridge Technology Model 510 Micro-ohmmeter.

7. Current that causes a 15°C temperature rise from 25°C ambient.

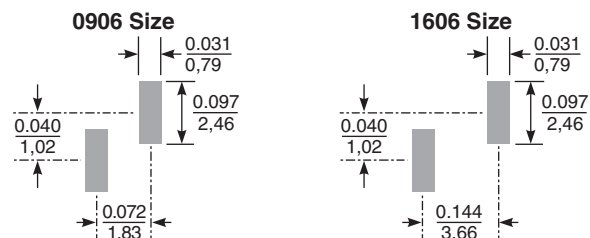
8. Electrical specifications at 25°C.

See Qualification Standards section for environmental and test data.

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



Recommended Land Patterns



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



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

Document 163-1 Revised 12/08/10

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

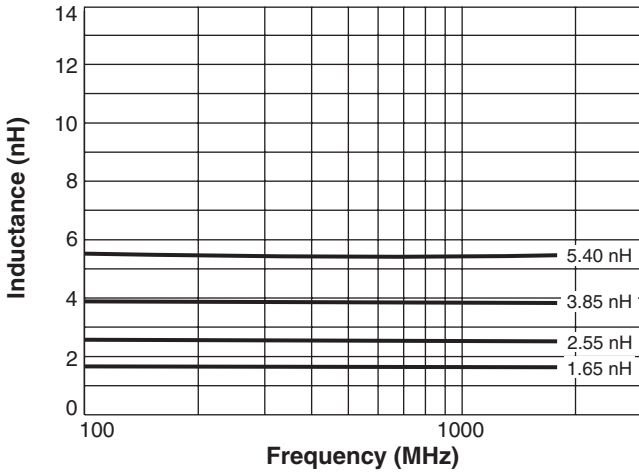
E-mail info@coilcraft.com Web <http://www.coilcraft.com>



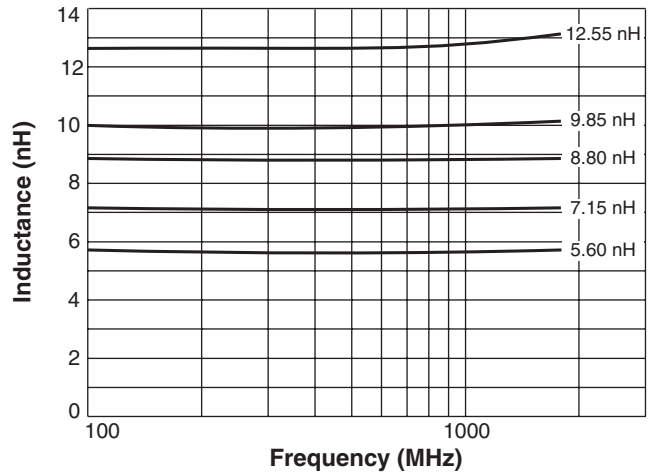
Micro Spring™ Air Core Inductors

Designer's Kit C308 contains 12 each of all values.
 Designer's Kit C308-2 contains 12 each of all 2% values.

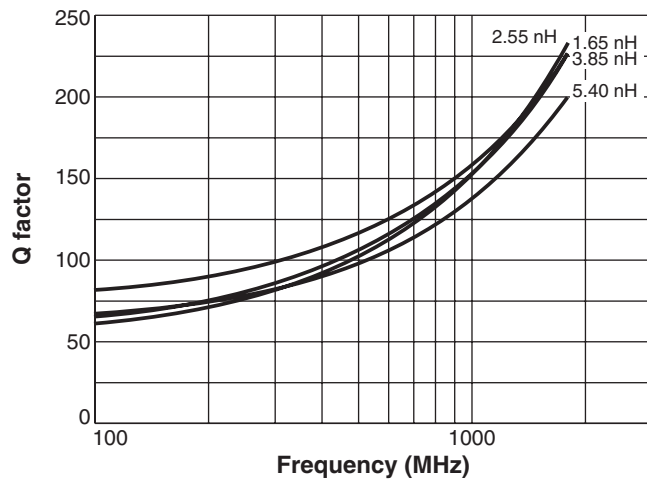
Typical L vs Frequency – 0906 Series



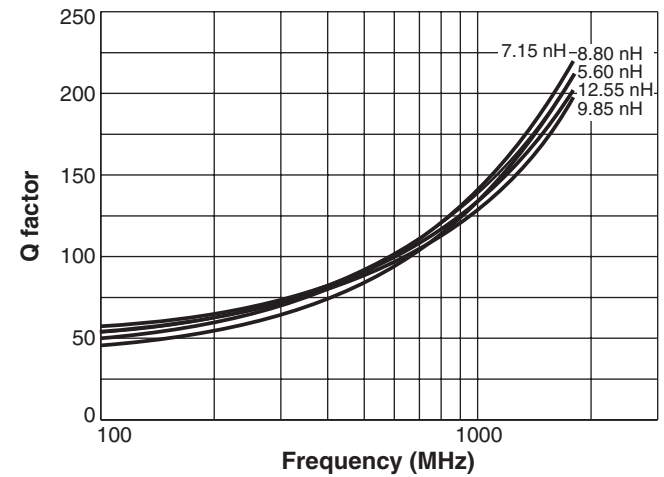
Typical L vs Frequency – 1606 Series



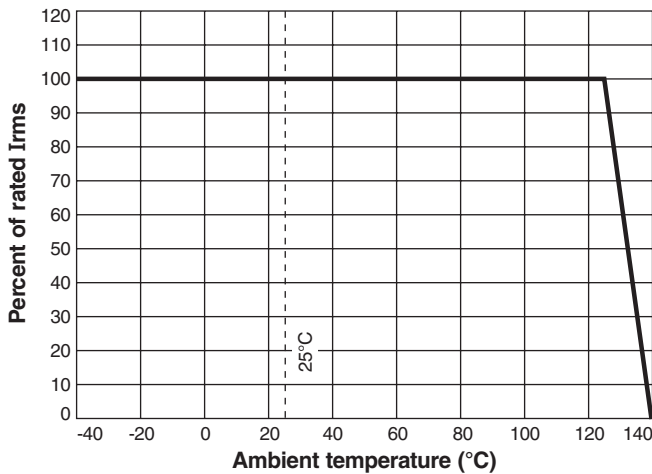
Typical Q vs Frequency – 0906 Series



Typical Q vs Frequency – 1606 Series



Typical Irms Derating



S-Parameter files
 ON OUR WEB SITE OR CD
SPICE models
 ON OUR WEB SITE OR CD



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

Document 163-2 Revised 12/08/10

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

E-mail info@coilcraft.com Web <http://www.coilcraft.com>