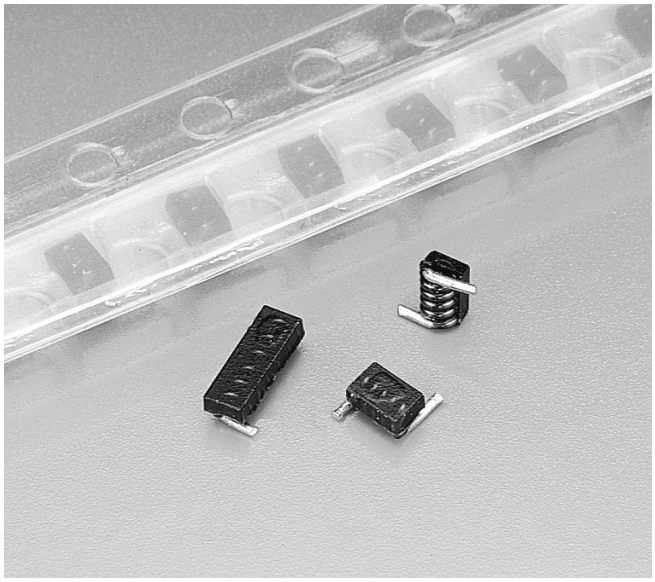
Micro Spring™ Air Core Inductors



- 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. 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
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 Tested with pure water or alcohol only. For other solvents, see Doc787_PCB_Washing.pdf.

Part number[1]	Turns	L[2] (nH)	Percent tol[3]	Q[4] min	SRF min[5] (GHz)	DCR max[6] (mOhm)	Irms[7] (A)
0906-2_L_	2	1.65	**10**,5	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

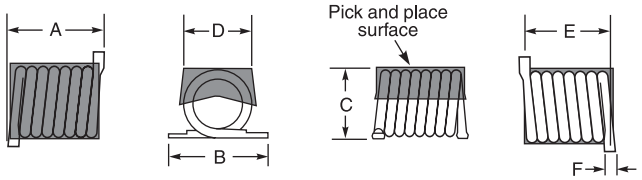
1. When ordering, specify **tolerance, termination** and **packaging** codes:

1606-10GLC

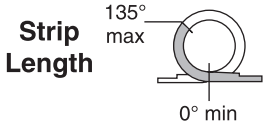
Tolerance: **F** = 1% **G** = 2% **J** = 5% **K** = 10% (Table shows stock tolerances in bold.)
Termination: **L** = RoHS compliant tin-silver (96.5/3.5) over copper. Special order: **T** = RoHS tin-silver-copper (95.5/4/0.5) or **S** = non-RoHS tin-lead (63/37).
Packaging: **C** = 7″ machine-ready reel. 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 or equivalent with a 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 or equivalents.
5. SRF measured using an Agilent/HP 8720D or equivalent with a Coilcraft SMD-D fixture.
6. DCR tested on the Cambridge Technology Model 510 Micro-ohmmeter or equivalent.
7. Current that causes a 15°C temperature rise from 25°C ambient.
8. Electrical specifications at 25°C.

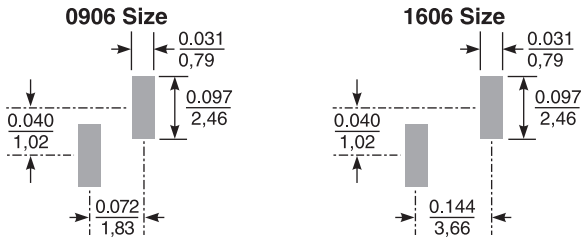
Refer to Doc 362 “Soldering Surface Mount Components” before soldering.



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



Recommended Land Patterns



Dimensions are in inches / mm

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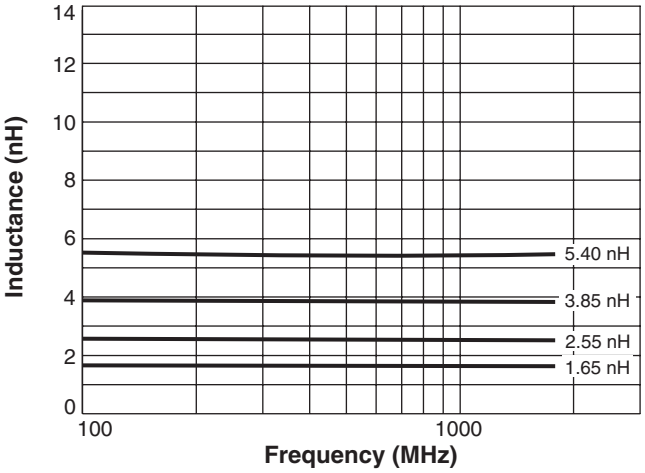
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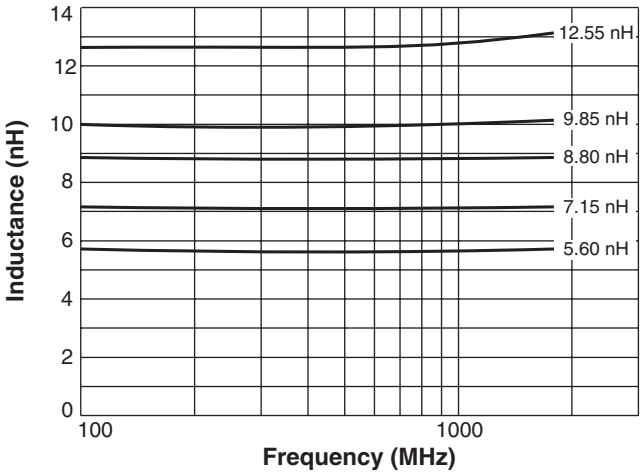
Designer's Kit C308 contains 12 each of all values.
Designer's Kit C308-2 contains12 each of all 2% values.

Micro Spring™ Air Core Inductors

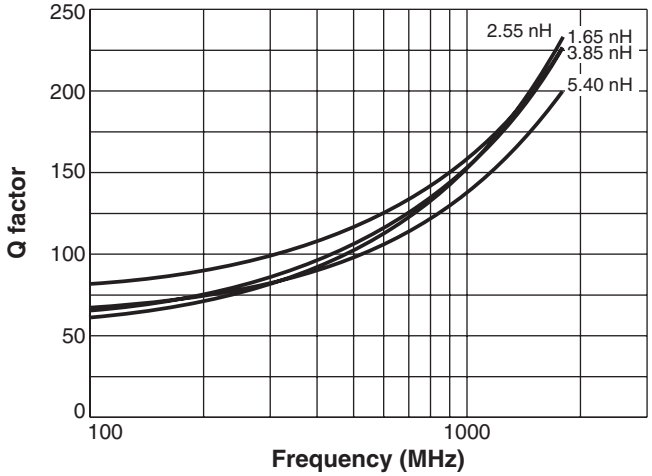
Typical L vs Frequency – 0906 Series



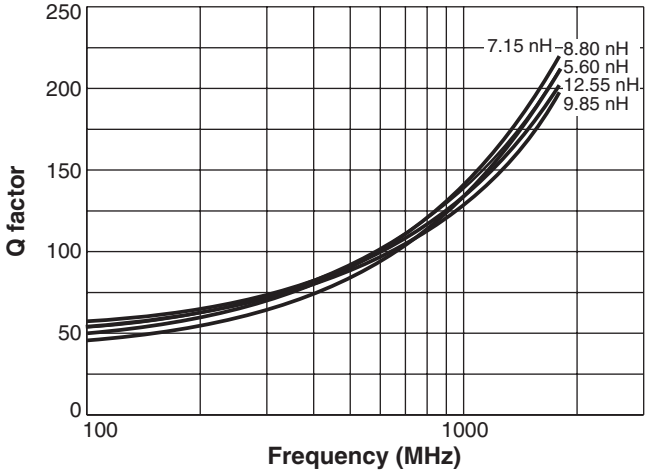
Typical L vs Frequency – 1606 Series



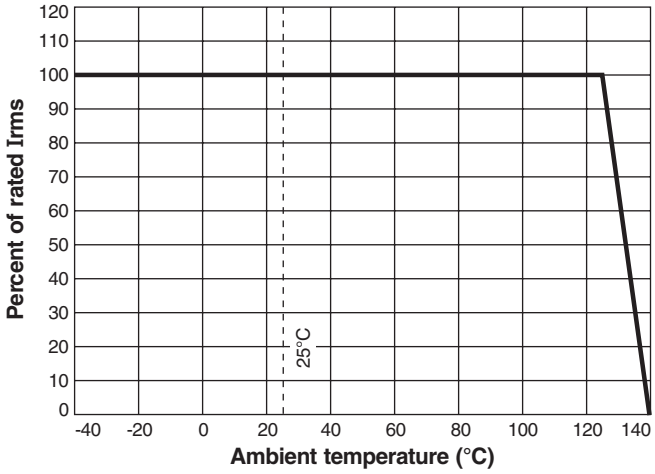
Typical Q vs Frequency – 0906 Series



Typical Q vs Frequency – 1606 Series



Typical Irms Derating



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