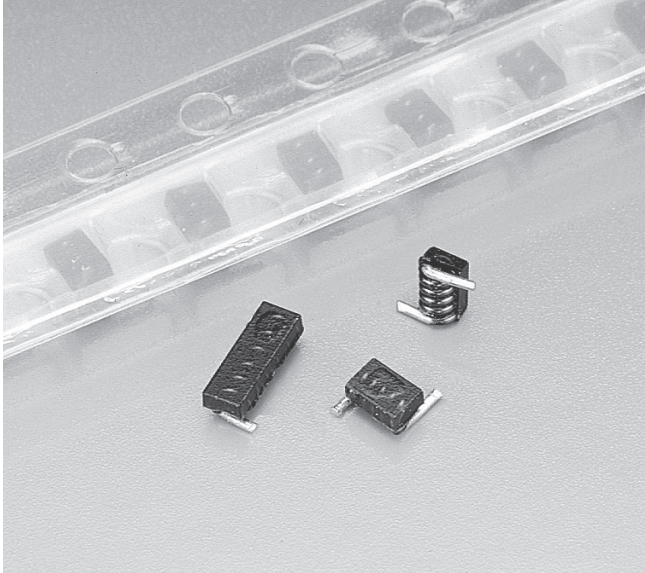




Micro Spring™ Air Core Inductors



- 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)

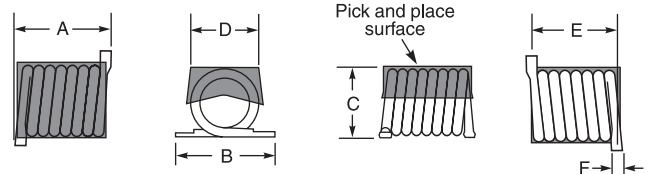
One per billion hours / one billion hours, calculated per Telcordia SR-332

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:

1606-10GLC

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

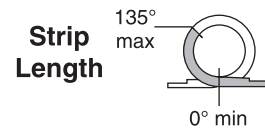
Termination: L = RoHS compliant tin-silver (96.5/3.5) over copper. Special order: T = RoHS tin-silver-copper (95.5/4/0.5) or S = non-RoHS tin-lead (63/37).

Packaging: C = 7" machine-ready reel. EIA-481 embossed plastic tape, 500 parts per full reel.

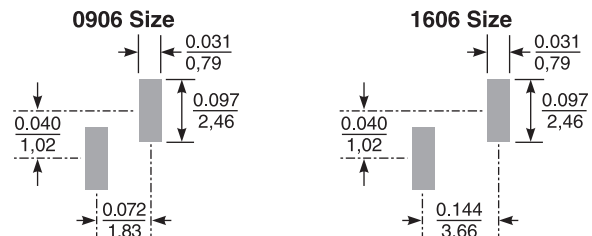
B = Less than full reel. In tape, but not machine-ready. To have a leader and trailer added (\$25 charge), use code letter C instead.

- Inductance measured at 800 MHz using Agilent/HP 4286 or equivalent with a Coilcraft SMD-A fixture and correlation.
- Tolerances in bold are stocked for immediate shipment.
- Q measured at 800 MHz using an Agilent/HP 4291A with an Agilent/HP 16193A test fixture or equivalents.
- SRF measured using an Agilent/HP 8720D or equivalent with a Coilcraft SMD-D fixture.
- DCR tested on the Cambridge Technology Model 510 Micro-ohmmeter or equivalent.
- Current that causes a 15°C temperature rise from 25°C ambient.
- Electrical specifications at 25°C.

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



Recommended Land Patterns



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



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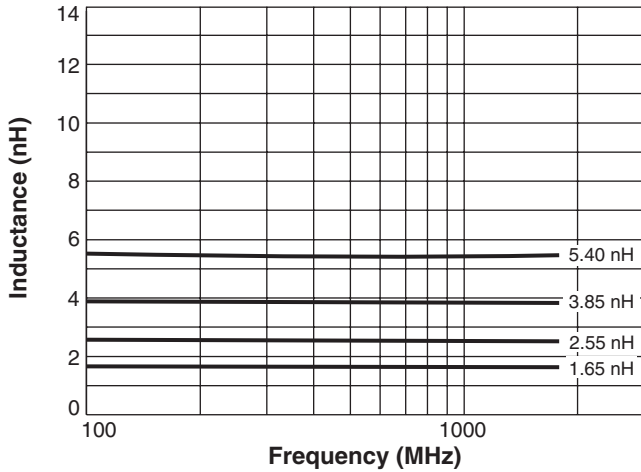
Document 163-1 Revised 10/03/11
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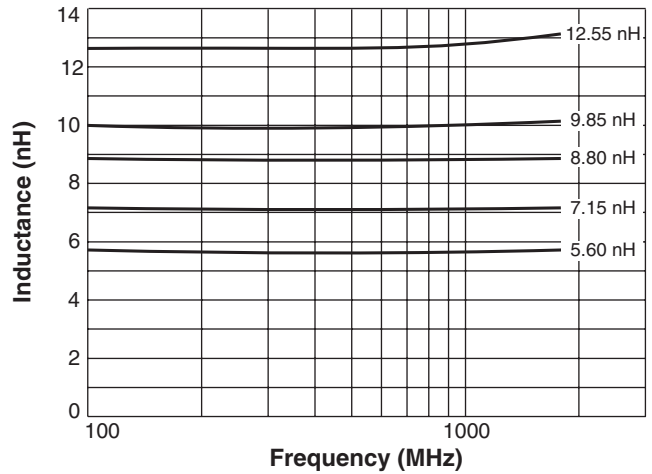
Micro Spring™ Air Core Inductors

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

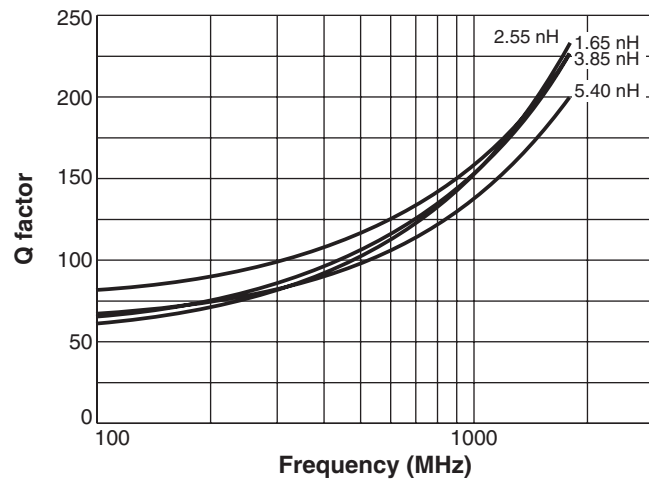
Typical L vs Frequency – 0906 Series



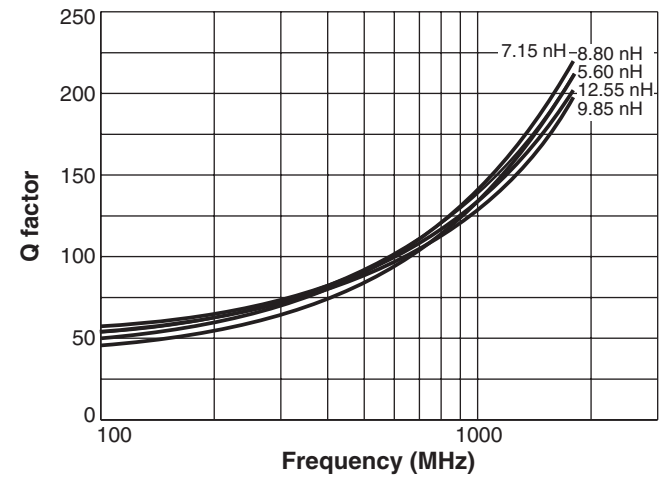
Typical L vs Frequency – 1606 Series



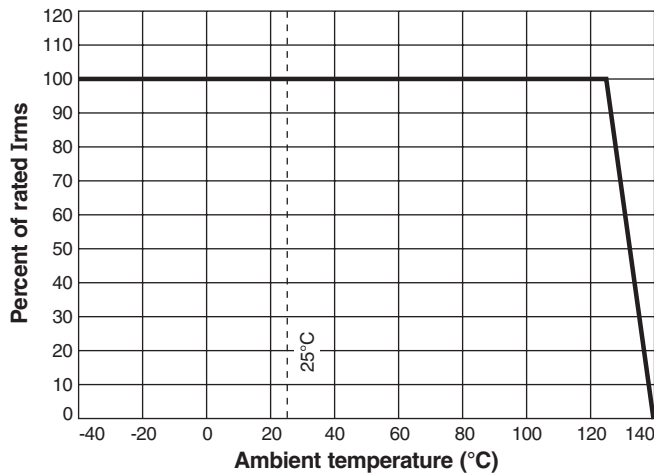
Typical Q vs Frequency – 0906 Series



Typical Q vs Frequency – 1606 Series



Typical Irms Derating



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