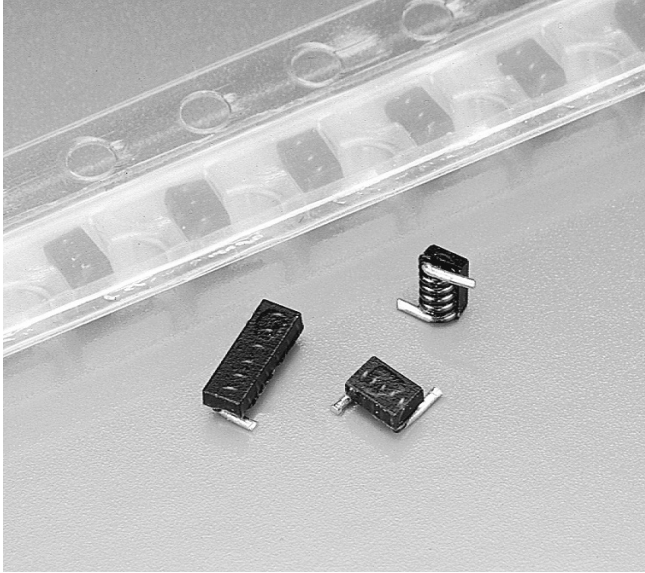




# Micro Spring™ Air Core Inductors



- 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

**Maximum part temperature** +140°C (ambient + temp rise)

**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)

**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

Recommended pick and place nozzle: OD: 0.059"; ID: 0.035"

**PCB washing** Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See [Doc787\\_PCB\\_Washing.pdf](#).

Part number <sup>1</sup>	Turns	Inductance <sup>2</sup> (nH)	Percent tolerance <sup>3</sup>	Q <sup>4</sup> min	SRF min <sup>5</sup> (GHz)	DCR max <sup>6</sup> (mOhm)	Irms <sup>7</sup> (A)
0906-2_L_	2	1.65	<b>10,5,2</b>	100	10.0	4.0	1.6
0906-3_L_	3	2.55	<b>5,2,1</b>	100	8.2	5.0	1.6
0906-4_L_	4	3.85	<b>5,2,1</b>	100	7.5	6.0	1.6
0906-5_L_	5	5.40	<b>5,2,1</b>	100	7.0	8.0	1.6
1606-6_L_	6	5.60	<b>5,2,1</b>	100	6.5	9.0	1.6
1606-7_L_	7	7.15	<b>5,2,1</b>	100	6.0	10	1.6
1606-8_L_	8	8.80	<b>5,2,1</b>	100	6.0	12	1.6
1606-9_L_	9	9.85	<b>5,2,1</b>	100	5.2	13	1.6
1606-10_L_	10	12.55	<b>5,2,1</b>	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. Quantities less than full reel available: in tape (not machine ready) or with leader and trailer (\$25 charge)

B = Less than full reel. In an effort to simplify our part numbering system, Coilcraft is eliminating the need for multiple packaging codes. When ordering, simply change the last letter of your part number from B to C.

P = 7" machine-ready reel. EIA-481 embossed plastic tape. Factory order only, not stocked (3000 parts per full reel).

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. This information is for reference only and does not represent absolute maximum ratings.

8. Electrical specifications at 25°C.

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

**S-Parameter files**  
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**SPICE models**  
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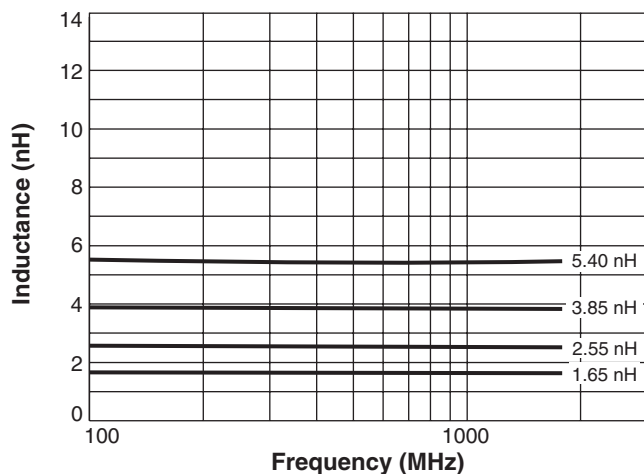
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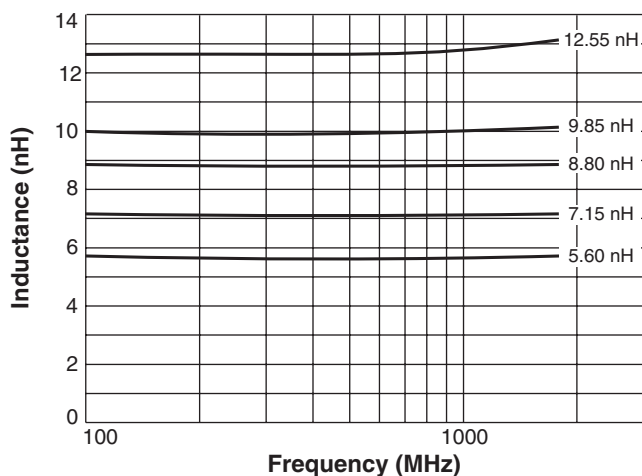


# Micro Spring™ Air Core Inductors

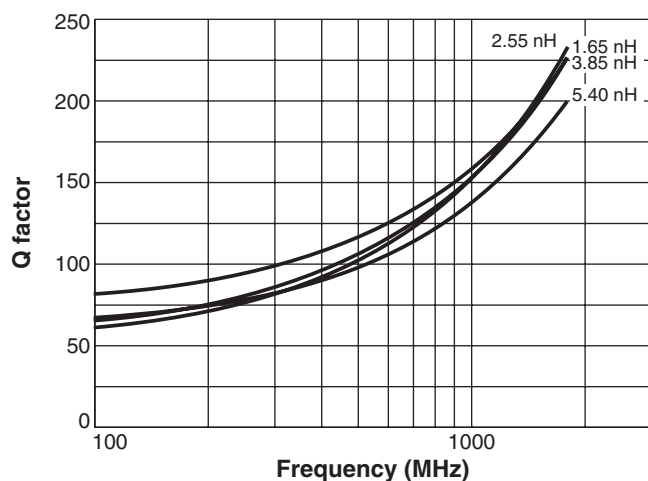
## Typical L vs Frequency – 0906 Series



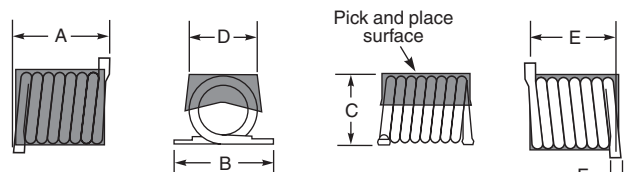
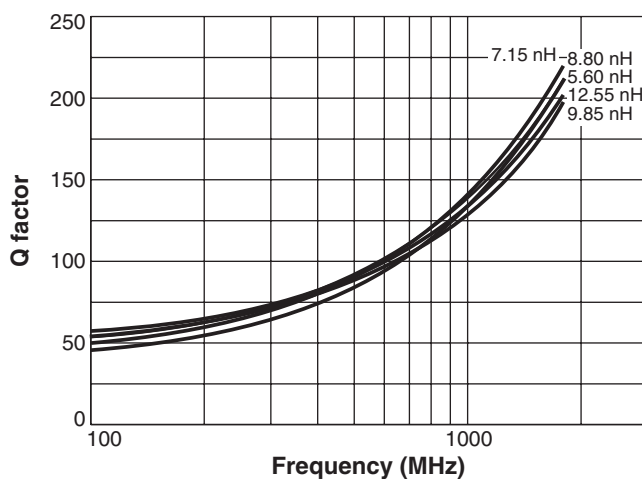
## Typical L vs Frequency – 1606 Series



## Typical Q vs Frequency – 0906 Series

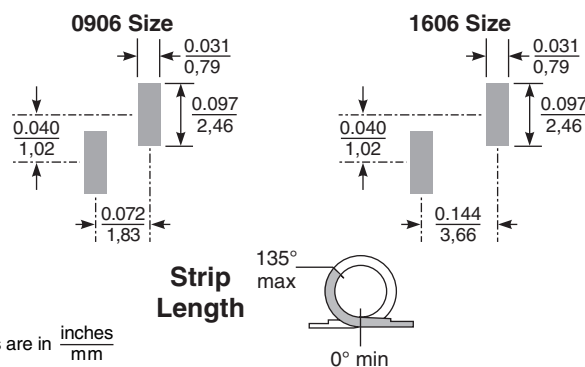


## Typical Q vs Frequency – 1606 Series



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  $\frac{\text{inches}}{\text{mm}}$

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[1606-10GLB](#) [1606-9JLB](#) [0906-3GLB](#) [1606-8GLC](#) [0906-4GLB](#) [1606-10JLC](#) [1606-9JLC](#) [1606-6JLB](#) [0906-3JLC](#)  
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