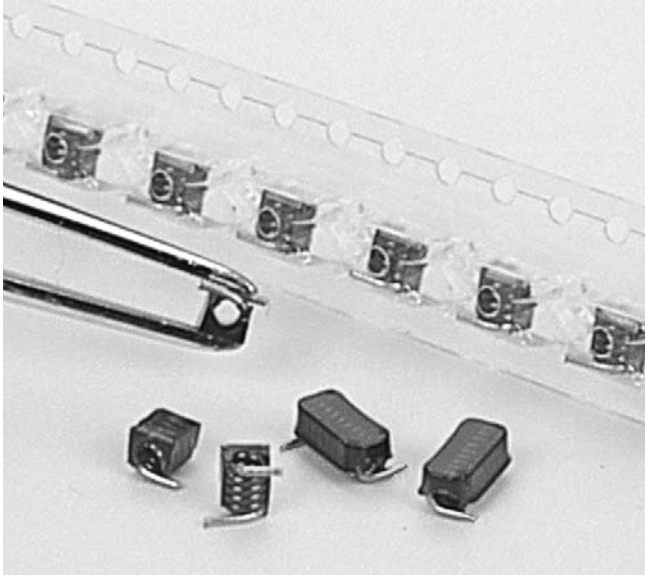




# Mini Spring™ Air Core Inductors



These surface mount air core “spring” inductors provide extremely high Q over a wide frequency range.

They’re jacketed with a high temperature material that ensures mechanical stability and very tight tolerance. It also forms a flat top, making them suitable for automatic placement and reflow or vapor phase processing. Solder coated leads ensure reliable soldering.

Coilcraft Mini Spring™ inductors are available in standard EIA tape and reel packaging: 12 mm for AxxT, and 16 mm for size BxxT parts.

Coilcraft **Designer’s Kit C302** contains samples of all 5% inductance tolerance parts. Kits with 2% tolerance parts are also available. To order, contact Coilcraft or purchase them at <http://order.coilcraft.com>.

Part number <sup>1</sup>	Turns	Inductance <sup>2</sup> (nH)	Percent tolerance <sup>3</sup>	Q <sup>4</sup> min	Test freq. (MHz)	SRF min <sup>5</sup> (GHz)	DCRmax <sup>6</sup> (mOhm)	Irms <sup>7</sup> (A)	Weight (mg)
A01TKL_	1	2.5	<b>10</b>	145	150	12.5	1.1	4	31
A02T_L_	2	5.0	<b>5,2</b>	140	150	6.5	1.8	4	42
A03T_L_	3	8.0	<b>5,2</b>	140	150	5.0	2.6	4	52
A04T_L_	4	12.5	<b>5,2</b>	137	150	3.3	3.4	4	65
A05T_L_	5	18.5	<b>5,2</b>	132	150	2.5	3.9	4	78
B06T_L_	6	17.5	<b>5,2</b>	100	150	2.2	4.5	4	100
B07T_L_	7	22.0	<b>5,2</b>	102	150	2.1	5.2	4	110
B08T_L_	8	28.0	<b>5,2</b>	105	150	1.8	6.0	4	118
B09T_L_	9	35.5	<b>5,2</b>	112	150	1.5	6.8	4	133
B10T_L_	10	43.0	<b>5,2</b>	106	150	1.2	7.9	4	147

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

A02TGLC

**Tolerance:** 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, 700 (AxxT) or 500 (BxxT) 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, 2500 (AxxT) or 2200 (BxxT) parts per full reel.

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

3. Tolerances in bold are stocked for immediate shipment.

4. Q measured using Agilent/HP 4291A with Agilent/HP 16193A test fixture.

5. SRF tested on the Agilent/HP 8720D and the SMD-D test 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. **Ambient temperature range:** -40°C to +125°C with Irms current +125°C to +140°C with derated current

9. **Storage temperature range:** Component: -40°C to +140°C Packaging: -55°C to +80°C

10. **Resistance to soldering heat:** Three reflows at >217°C for 90 seconds (+260°C ±5°C for 20 – 40 seconds), allowing parts to cool to room temperature between.

11. Electrical specifications at 25°C.

12. Temperature coefficient of inductance: +5 to +70 ppm/°C.

See Qualification Standards section for environmental and test data. Refer to Doc 362 “Soldering Surface Mount Components” before soldering.

## Coilcraft®

Specifications subject to change without notice.

Please check our website for latest information. Document 107-1 Revised 10/03/07

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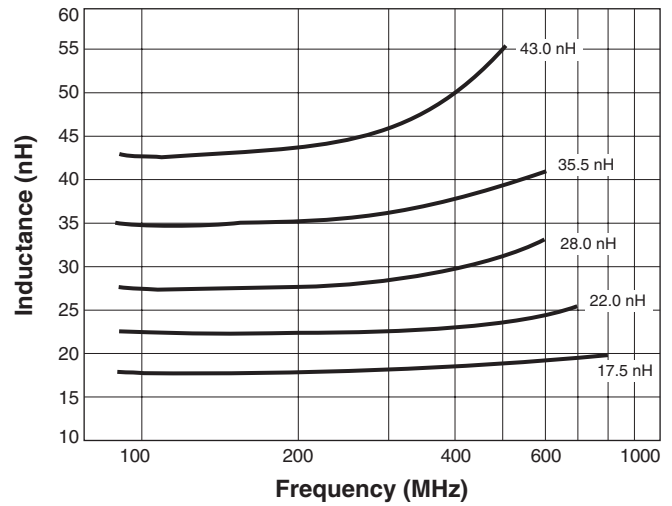
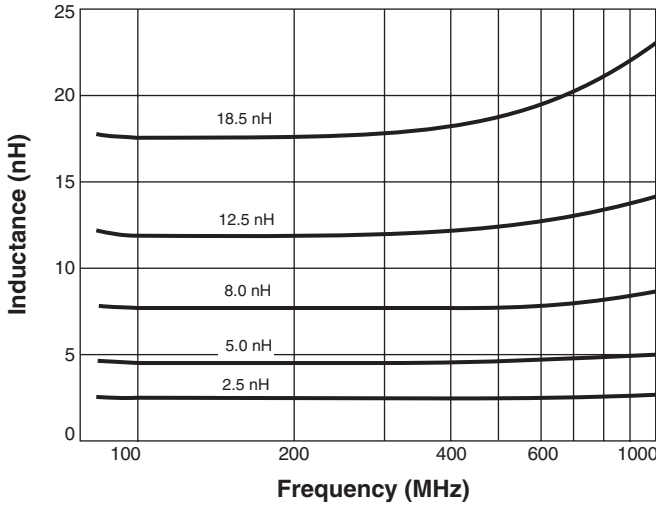
E-mail [info@coilcraft.com](mailto:info@coilcraft.com) Web <http://www.coilcraft.com>



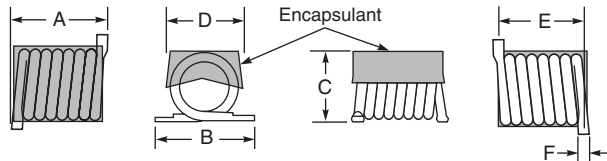
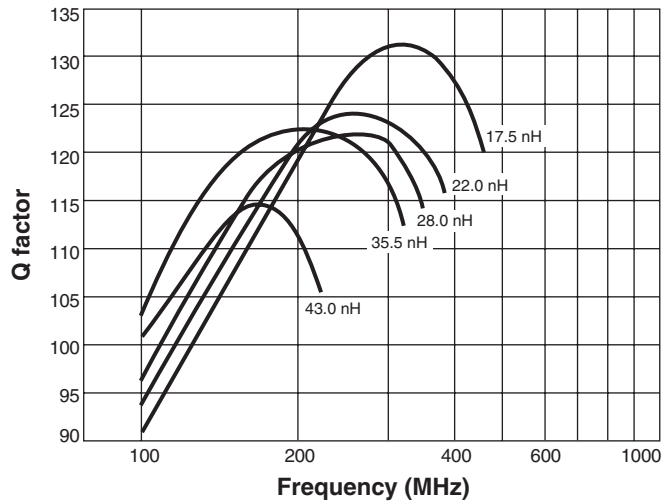
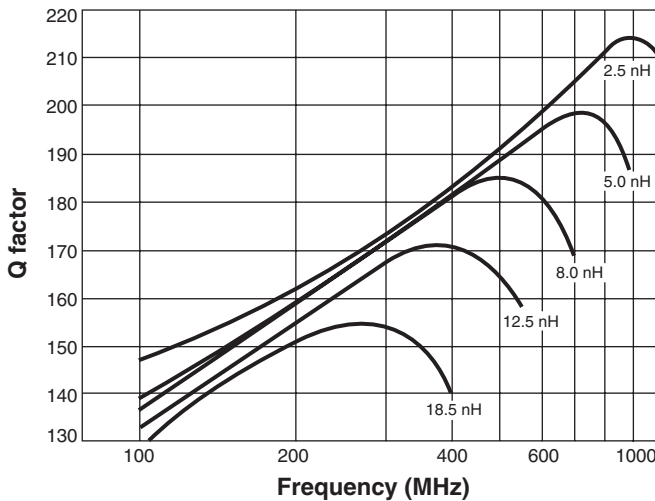
# Mini Spring™ Air Core Inductors

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

## Typical L vs Frequency

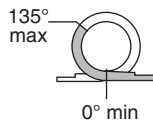


## Typical Q vs Frequency

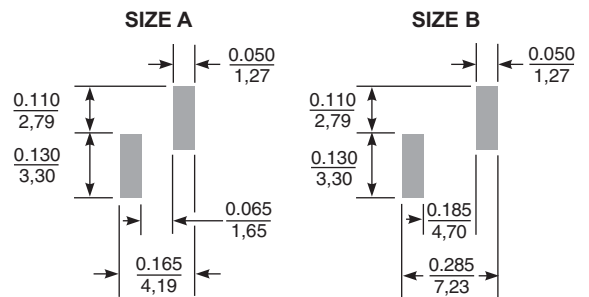


Size	A max	B max	C max	D	E	F max
A	0.155 3,94	0.175 4,45	0.124 3,15	0.125 ±0.010 3,18 ±0,25	0.115 ±0.010 2,92 ±0,25	0.029 0,74
B	0.270 6,86	0.175 4,45	0.124 3,15	0.125 ±0.010 3,18 ±0,25	0.230 ±0.015 5,84 ±0,38	0.029 0,74

### Strip Length



### Recommended Land Patterns



**Tape and reel:** 700/7" reel; 2500/13" reel 12 mm tape width      500/7" reel; 2200/13" reel 16 mm tape width  
For packaging data see Tape and Reel Specifications section.



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Please check our website for latest information. Document 107-2 Revised 10/03/07