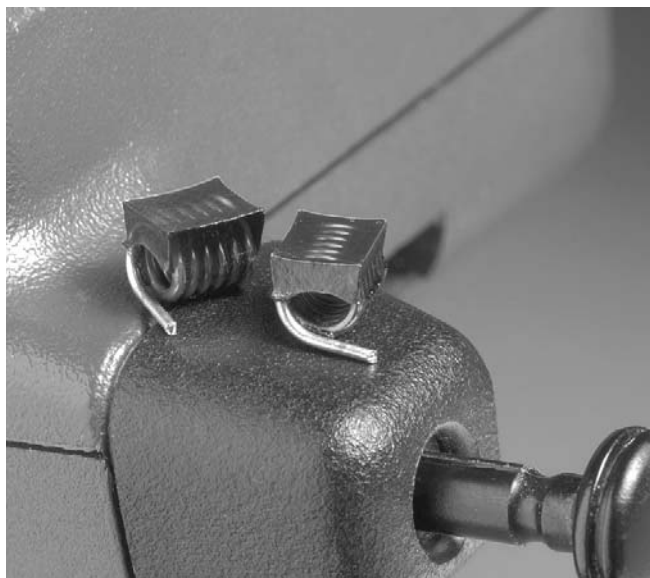


# Midi Spring® Air Core Inductors



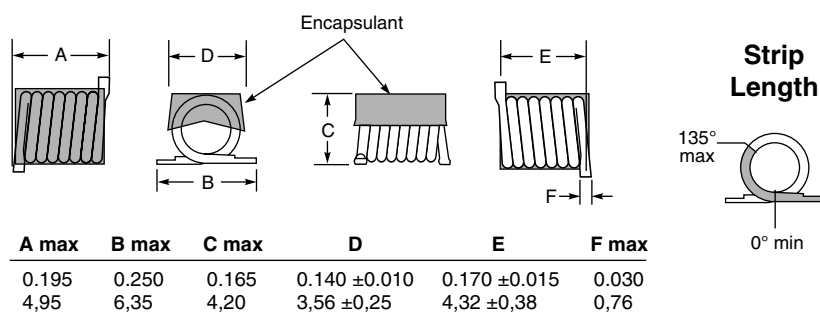
This family of surface mount Midi Spring® inductors is designed for higher current applications (up to 3.5 Amps) than our smaller series. It also provides higher Q factors at lower frequencies.

Like all Coilcraft “spring” inductors, these parts provide the advantages of an air core inductor in a package optimized for auto placement. The top of the coil is capped with acrylic, forming a flat surface and assuring mechanical stability. The leads are solder coated for reliable soldering.

Coilcraft **Designer’s Kit C118** contains samples of all 5% inductance tolerance parts. Kits with 2% tolerance are also available. To order, contact Coilcraft or visit <http://order.coilcraft.com>.

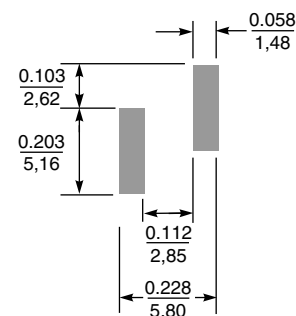
Part number <sup>1</sup>	Inductance <sup>2</sup> (nH)	Percent tolerance <sup>3</sup>	Q <sup>2</sup> typ	Q <sup>2</sup> min	Test freq. (MHz)	SRF <sup>4</sup> min (GHz)	DCR <sup>5</sup> max (mOhm)	I <sub>rms</sub> <sup>6</sup> max (A)
1812SMS-22N_	22	<b>5,2</b>	135	100	150	3.2	4.2	3.0
1812SMS-27N_	27	<b>5,2</b>	135	100	150	2.7	4.0	3.5
1812SMS-33N_	33	<b>5,2</b>	130	100	150	2.5	4.8	3.0
1812SMS-39N_	39	<b>5,2</b>	135	100	150	2.1	4.4	3.0
1812SMS-47N_	47	<b>5,2</b>	135	100	150	2.1	5.6	3.0
1812SMS-56N_	56	<b>5,2</b>	125	100	150	1.5	6.2	3.0
1812SMS-68N_	68	<b>5,2</b>	120	100	150	1.5	8.2	2.5
1812SMS-82N_	82	<b>5,2</b>	120	100	150	1.3	9.4	2.5
1812SMS-R10_	100	<b>5,2</b>	115	100	150	1.2	12.3	1.7
1812SMS-R12_	120	<b>5,2</b>	125	100	150	1.1	17.3	1.5

- When ordering, please add letter to specify inductance tolerance: J=5%, G=2%.
- Inductance and Q tested on the Agilent/HP 4291A with the 16193 fixture and correlation.
- Tolerances in bold are stocked for immediate shipment.
- SRF tested on the Agilent/HP 8753D and the SMD-D test fixture.
- DCR tested on the Cambridge Technology Model 510 Micro-ohmmeter.
- Average current for a 15°C rise above 25°C ambient.
- Operating temperature range -40°C to +125°C.
- Electrical specifications at 25°C. See Qualification Standards section for environmental and test data.



**Weight:** 0.10 – 0.16 g  
**Terminations:** Tin/lead over copper  
**Tape and reel:** 500/7" reel; 2000/13" reel 12 mm tape width  
 For packaging data see Tape and Reel Specifications section.

## Recommended Land Pattern



# Coilcraft®

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

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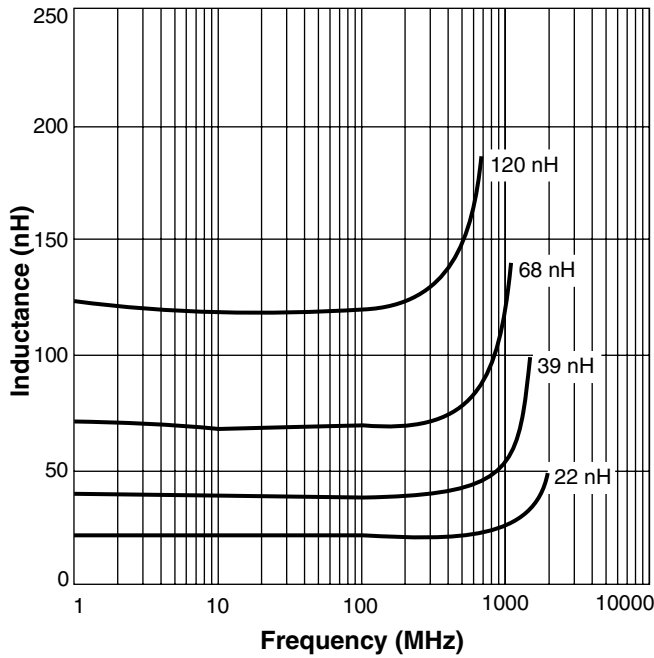
1102 Silver Lake Road Cary, Illinois 60013 Phone 847/639-6400 Fax 847/639-1469

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

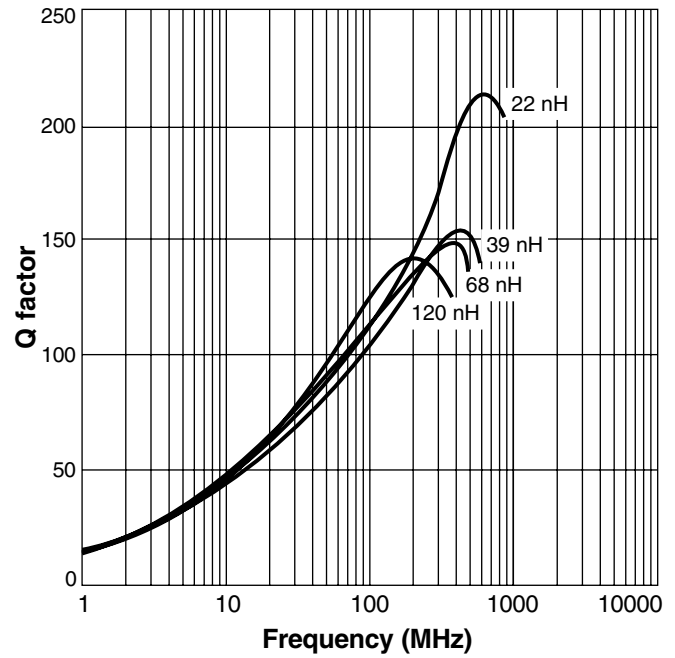
# Midi Spring® Air Core Inductors

**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



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

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

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

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