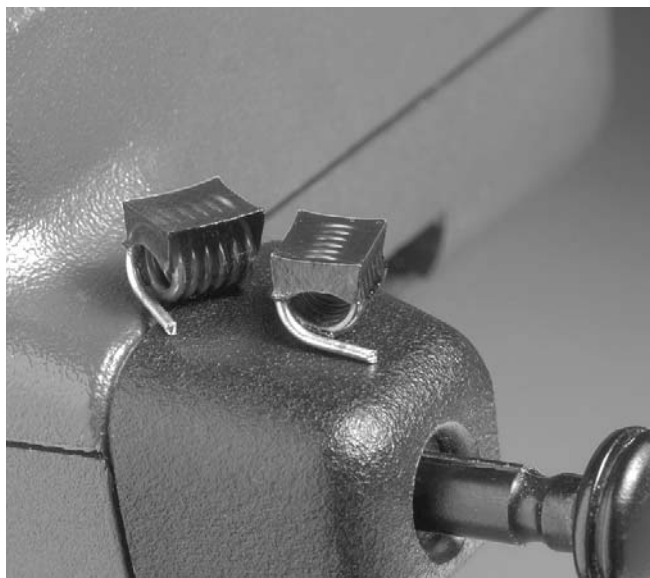




Midi Spring® Air Core Inductors



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 C318** 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 ¹	Inductance ² (nH)	Percent tolerance ³	Q ² typ	Q ² min	Test freq. (MHz)	SRF min ⁴ (GHz)	DCR max ⁵ (mOhm)	Irms ⁶ (A)
1812SMS-22N_L_	22	5,2	135	100	150	3.2	4.2	3.0
1812SMS-27N_L_	27	5,2	135	100	150	2.7	4.0	3.5
1812SMS-33N_L_	33	5,2	130	100	150	2.5	4.8	3.0
1812SMS-39N_L_	39	5,2	135	100	150	2.1	4.4	3.0
1812SMS-47N_L_	47	5,2	135	100	150	2.1	5.6	3.0
1812SMS-56N_L_	56	5,2	125	100	150	1.5	6.2	3.0
1812SMS-68N_L_	68	5,2	120	100	150	1.5	8.2	2.5
1812SMS-82N_L_	82	5,2	120	100	150	1.3	9.4	2.5
1812SMS-R10_L_	100	5,2	115	100	150	1.2	12.3	1.7
1812SMS-R12_L_	120	5,2	125	100	150	1.1	17.3	1.5

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

1812SMS-R12 **G** **L** **C**

Tolerance: **G** = 2% **J** = 5%

Termination: **L** = RoHS compliant tin-silver 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.

D = 13" machine-ready reel. EIA-481 embossed plastic tape. Factory order only, not stocked, 2000 parts per full reel.

2. Inductance and Q tested on the Agilent/HP 4291A with the 16193 fixture and correlation.

3. Tolerances in bold are stocked for immediate shipment.

4. SRF tested on the Agilent/HP 8753D and the SMD-D test fixture.

5. DCR tested on the Cambridge Technology Model 510 Micro-ohmmeter.

6. Average current for a 15°C rise above 25°C ambient.

7. Operating temperature range -40°C to +125°C.

8. Electrical specifications at 25°C.

See Qualification Standards section for environmental and test data

For part marking data see Color Coding section.

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Specifications subject to change without notice.

Please check our website for latest information.

Document 184-1 Revised 01/19/05

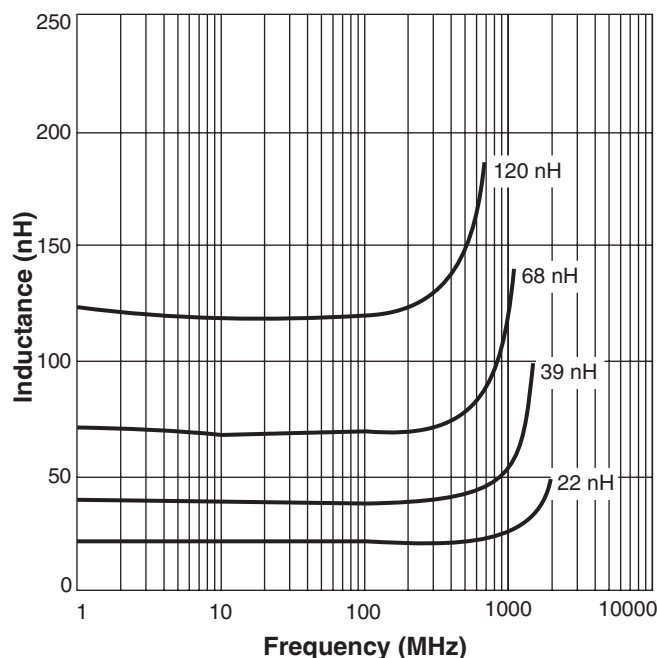
1102 Silver Lake Road Cary, Illinois 60013 **Phone** 847/639-6400 **Fax** 847/639-1469

E-mail info@coilcraft.com **Web** <http://www.coilcraft.com>

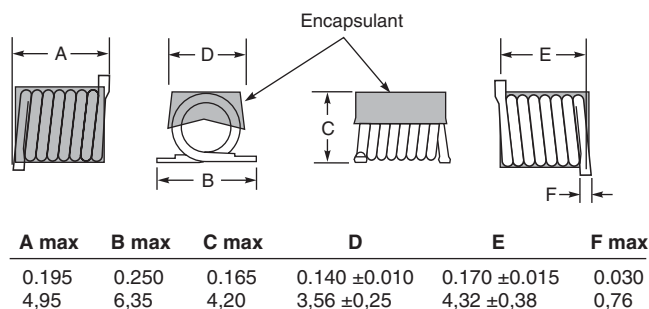
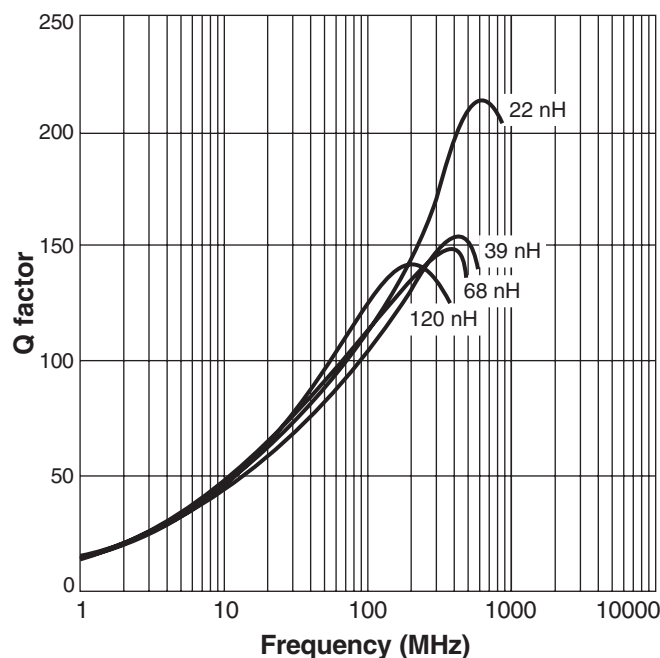


Midi Spring® Air Core Inductors

Typical L vs Frequency



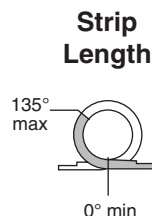
Typical Q vs Frequency



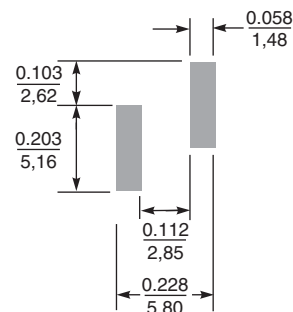
Weight: 0.10 – 0.16 g

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



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Document 184-2 Revised 01/19/05

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