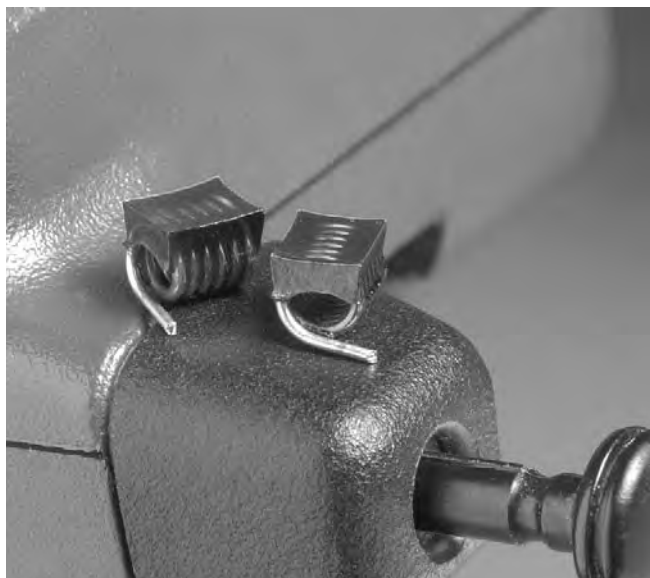




Midi Spring[®] Air Core Inductors



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, specify **tolerance, termination and packaging** codes:

1812SMS-R12 G L C

Tolerance: G = 2% J = 5%

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.

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. Current that causes a 15°C temperature rise from 25°C ambient.

7. **Ambient temperature range:** -40°C to +125°C with Irms current
+125°C to +140°C with derated current

8. **Storage temperature range:** Component: -40°C to +125°C
Packaging: -55°C to +80°C

9. **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.

10. Electrical specifications at 25°C.

11. 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.

For part marking data see Color Coding section.

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

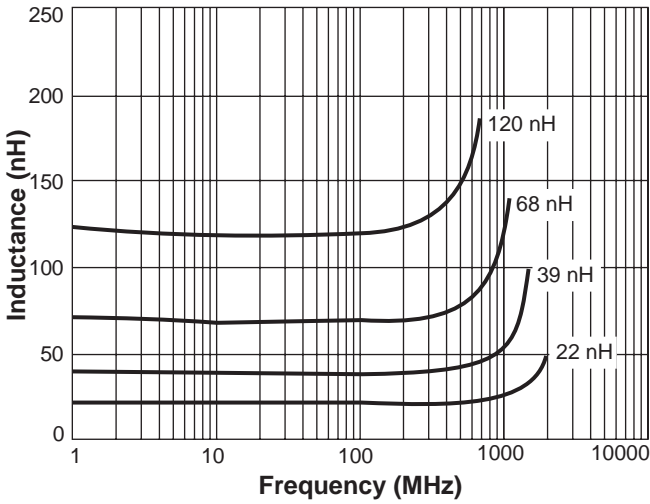
E-mail info@coilcraft.com Web <http://www.coilcraft.com>



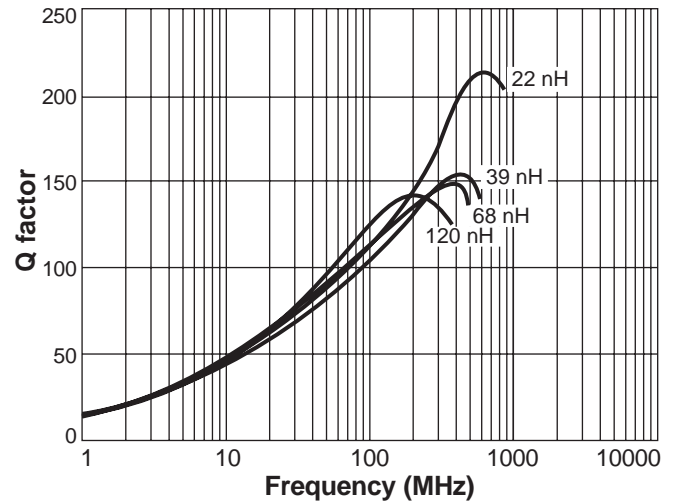
Midi Spring® Air Core Inductors

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

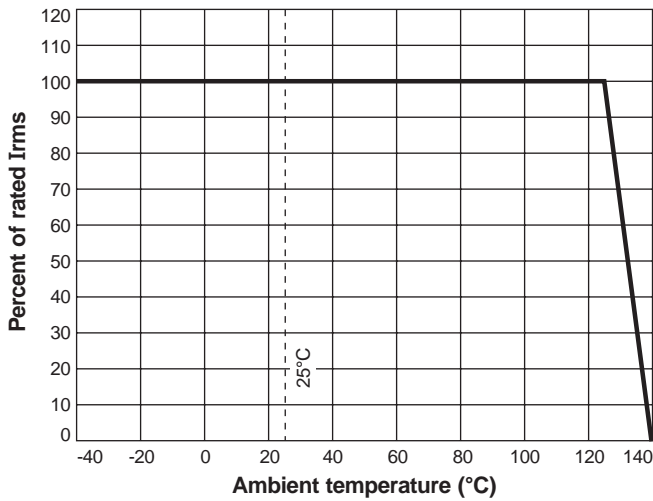
Typical L vs Frequency



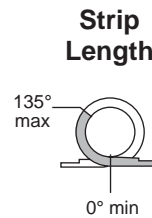
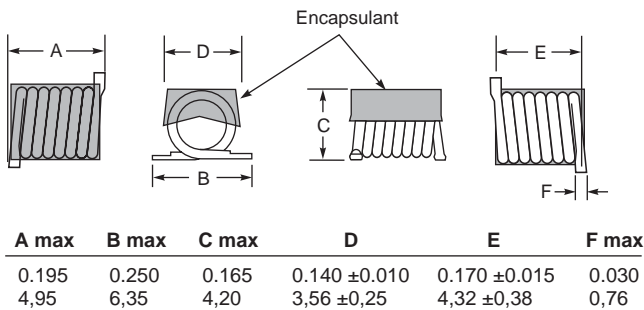
Typical Q vs Frequency



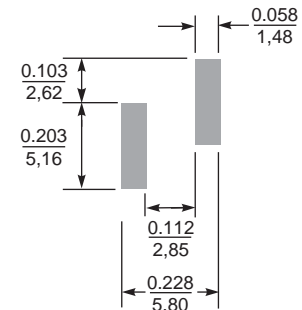
Irms Derating



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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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 Web http://www.coilcraft.com