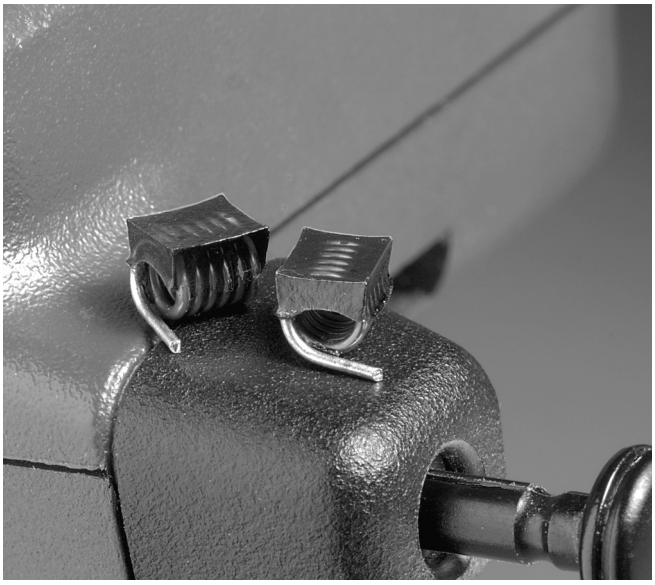
Midi Spring® Air Core Inductors



- Air core inductors feature high Q and current handling
- Acrylic top provides a flat surface for pick and place
- Solder coated leads ensure reliable soldering

Terminations RoHS compliant tin-silver over copper. Other terminations available at additional cost.
Weight 0.10 – 0.16 g
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 500/7″ reel; 2000/13″ reel Plastic tape: 12 mm wide, 0.3 mm thick, 8 mm pocket spacing, 4.33 mm pocket depth Recommended pick and place nozzle: OD: 0.110″; ID: 0.091″
PCB washing Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See Doc787_PCB_Washing.pdf.

Part number[1]	Inductance[2] (nH)	Percent tolerance[3]	Q[4] typ	Q[4] min	Test freq. (MHz)	SRF min[5] (GHz)	DCR max[6] (mOhm)	Irms[7] (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
1812SMS-R15_L_	150	**5,2**	145	100	150	0.75	33.0	1.2

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

1812SMS-R15GLC

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

2. Inductance tested at 150 MHz on an Agilent/HP 4286A LCR meter or equivalent with a Coilcraft SMD-A test fixture and correlation.
3. Tolerances in bold are stocked for immediate shipment.
4. Q tested at 150 MHz on an Agilent/HP 4291A Impedance Analyzer with an Agilent/HP 16193 test fixture or equivalents.
5. SRF tested on the Agilent/HP 8753D Network Analyzer or equivalent and a Coilcraft CCF1248 test 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.
For part marking data see www.coilcraft.com/colrcode.cfm.

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Designer's Kit C318 contains 12 each of all 5% values.
Designer's Kit C318-2 contains12 each of all 2% values.

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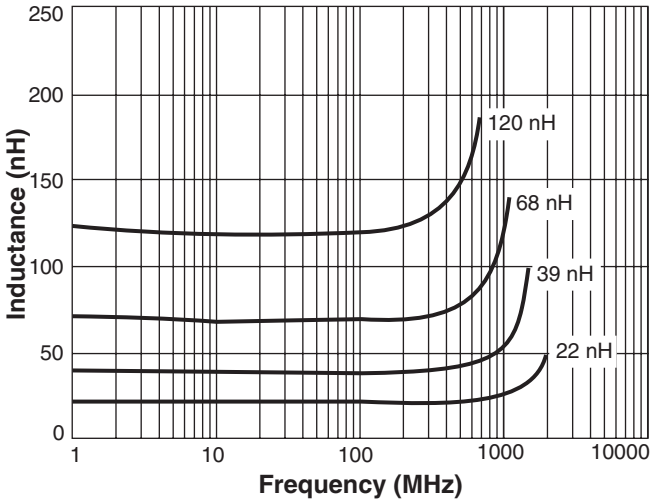
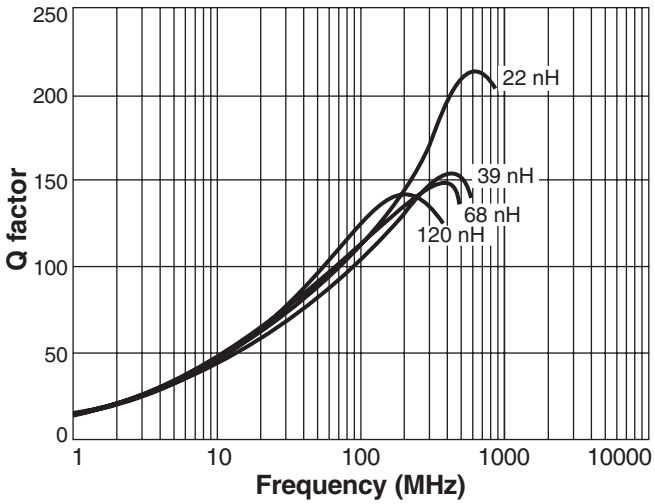
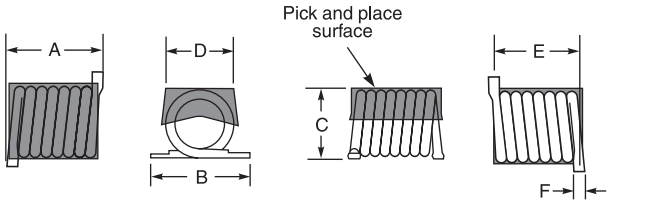
Typical L vs Frequency



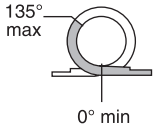
Typical Q vs Frequency



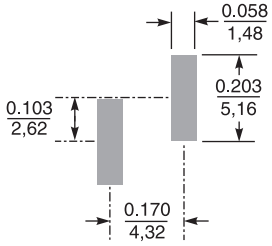


A max	B max	C max	D	E	F max
0.195 4,95	0.250 6,35	0.165 4,20	0.140 ±0.010 3,56 ±0,25	0.170 ±0.015 4,32 ±0,38	0.030 0,76

Strip Length



Recommended Land Pattern



Dimensions are in inches / mm

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