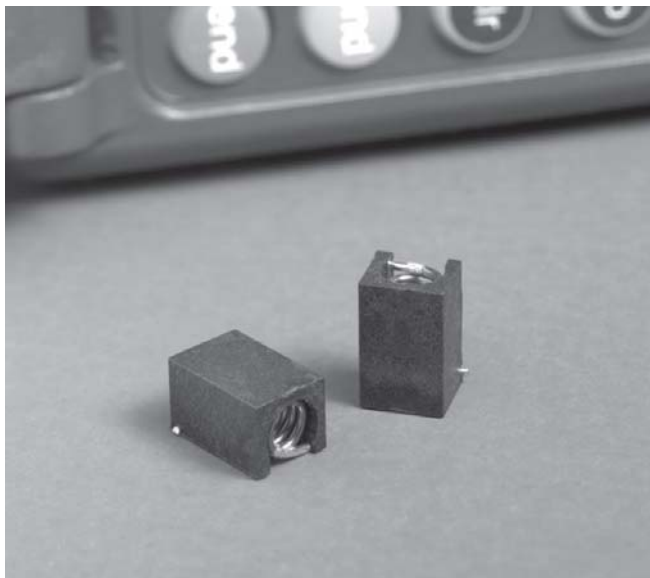




# Maxi Spring™ Air Core Inductors



- Air core inductors feature higher Q, L and current ratings
- Rigid package provides a flat surface for pick and place
- Leads are locked in position for precise terminal spacing

**Weight** 0.42 – 0.59 g

**Terminations** RoHS compliant tin-silver over copper. Other terminations available at additional cost.

**Ambient temperature** –40°C to +125°C with I<sub>rms</sub> current, +125°C to +140°C with derated current

**Storage temperature** Component: –40°C to +140°C.  
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)

**Failures in Time (FIT) / Mean Time Between Failures (MTBF)**  
One per billion hours / one billion hours, calculated per Telcordia SR-332

**Packaging** 800/13" reel Plastic tape: 24 mm wide, 0.3 mm thick, 12 mm pocket spacing, 6.1 mm pocket depth

**PCB washing** Only pure water or alcohol recommended

Part number <sup>1</sup>	Turns	Inductance <sup>2</sup> (nH)	Percent tolerance <sup>3</sup>	Q <sup>2</sup> typ	Q <sup>2</sup> min	Test freq. (MHz)	SRF min <sup>4</sup> (GHz)	DCR max <sup>5</sup> (mOhm)	I <sub>rms</sub> <sup>6</sup> (A)
132-09SM_L_	9	90	<b>5,2</b>	114	95	50	1.140	15	3.5
132-10SM_L_	10	111	<b>5,2</b>	104	87	50	1.020	15	3.5
132-11SM_L_	11	130	<b>5,2</b>	104	87	50	0.900	20	3.0
132-12SM_L_	12	169	<b>5,2</b>	114	95	50	0.875	25	3.0
132-13SM_L_	13	206	<b>5,2</b>	114	95	50	0.800	30	3.0
132-14SM_L_	14	222	<b>5,2</b>	110	92	50	0.730	35	3.0
132-15SM_L_	15	246	<b>5,2</b>	114	95	50	0.685	35	3.0
132-16SM_L_	16	307	<b>5,2</b>	114	95	50	0.660	35	3.0
132-17SM_L_	17	380	<b>5,2</b>	114	95	50	0.590	50	2.5
132-18SM_L_	18	422	<b>5,2</b>	114	95	50	0.540	60	2.5
132-19SM_L_	19	491	<b>5,2</b>	114	95	50	0.535	65	2.0
132-20SM_L_	20	538	<b>5,2</b>	104	87	50	0.490	90	2.0

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

132-20SM G L D

**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).

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

**Packaging:** D = 13" machine-ready reel. EIA-481 embossed plastic tape (800 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 D instead.

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. Electrical specifications at 25°C.

See Qualification Standards section for environmental and test data.

Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

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

**SPICE models**  
ON OUR WEB SITE OR CD

**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

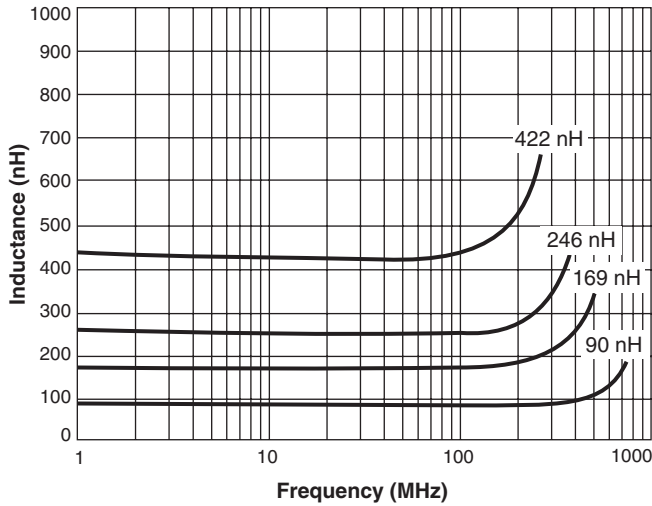
E-mail [info@coilcraft.com](mailto:info@coilcraft.com) Web <http://www.coilcraft.com>



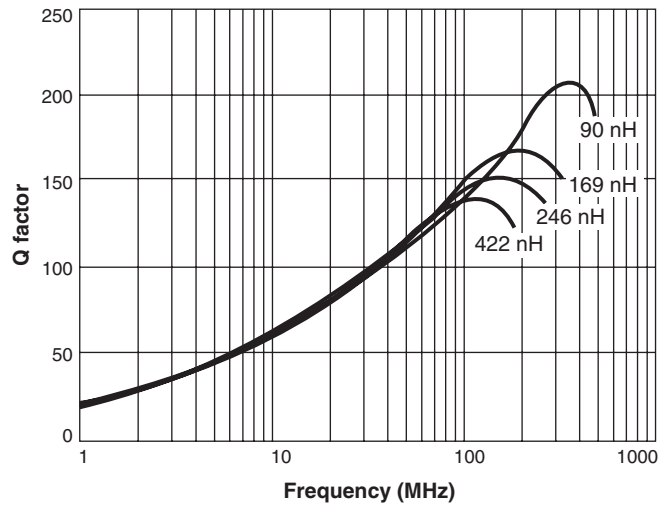
# Maxi Spring™ Air Core Inductors

Designer's Kit C319 contains 8 each of all 5% values.  
 Designer's Kit C319-2 contains 8 each of all 2% values.

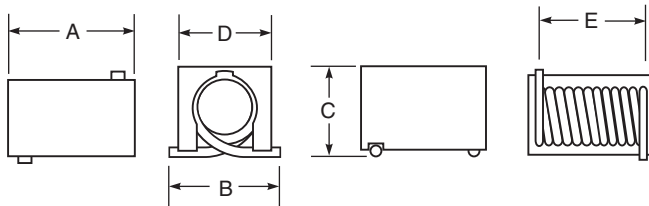
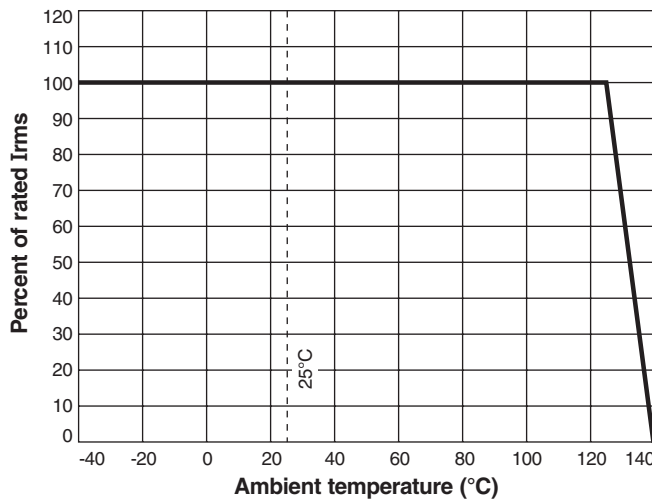
## Typical L vs Frequency



## Typical Q vs Frequency

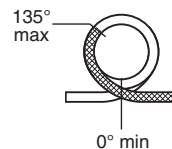


## Typical Irms Derating



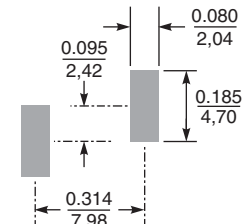
A max	B max	C max	D	E
0.415	0.260	0.235	0.226 ±0.003	0.314 ±0.020
10,55	6,60	5,97	5,74 ±0,08	7,98 ±0,51

### Strip Length



Dimensions are in  $\frac{\text{inches}}{\text{mm}}$

### Recommended Land Pattern



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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