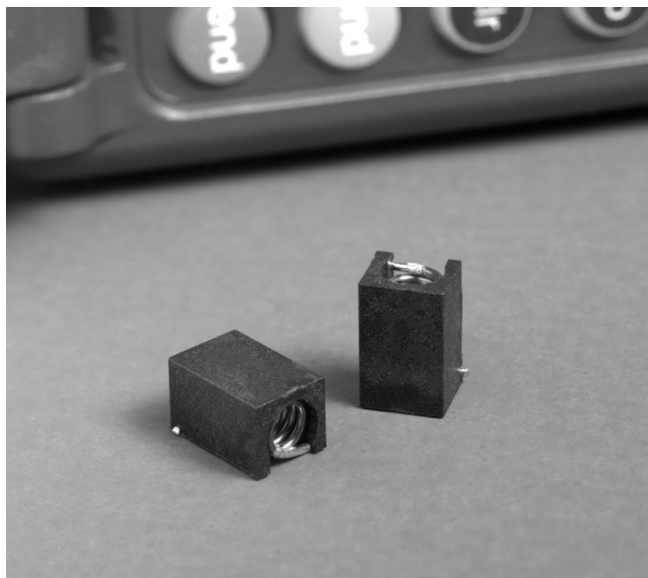


# Maxi Spring™ Air Core Inductors



- 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 (96.5/3.5) over copper. Other terminations available at additional cost.

**Ambient temperature** –40°C to +125°C with Irms current, +125°C to +140°C with derated current

**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)

**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** Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See [Doc787\\_PCB\\_Washing.pdf](#).

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)	Irms <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:

132-20SMGLD

**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 at 50 MHz on an Agilent/HP 4291A with a 16193 fixture and correlation.

3. Tolerances in bold are stocked for immediate shipment.

4. SRF tested on the Agilent/HP 8753D and a Coilcraft CCF1248 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.

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

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

**SPICE models**  
ON OUR WEB SITE



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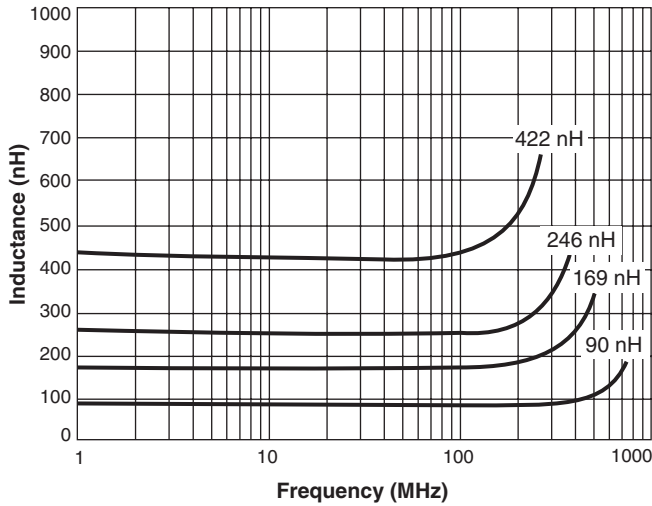
This product may not be used in medical or high risk applications without prior Coilcraft approval. Specification subject to change without notice. Please check web site for latest information.

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

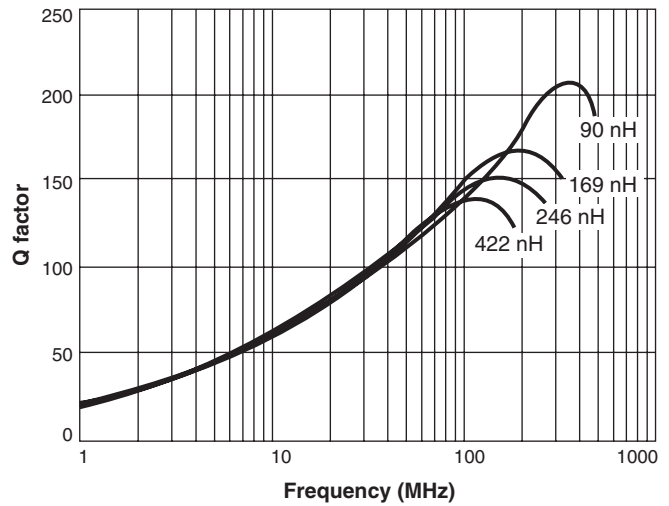


# Maxi Spring™ Air Core Inductors

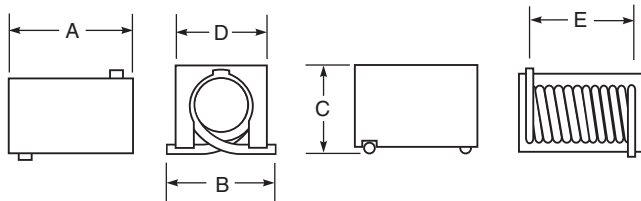
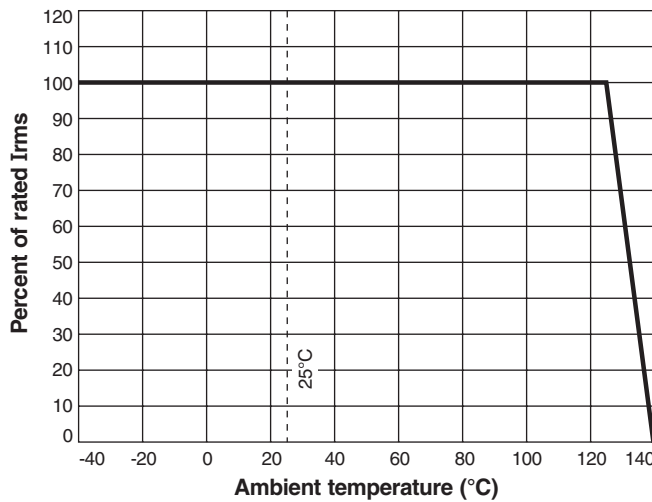
## Typical L vs Frequency



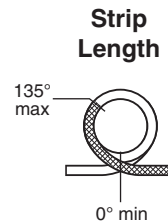
## Typical Q vs Frequency



## Typical Irms Derating

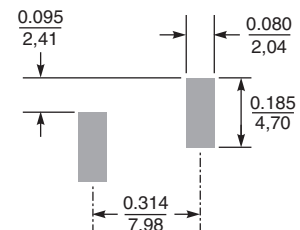


A max	B max	C max	D	E	
0.415	0.260	0.235	0.240 ± 0.015	0.314 ± 0.020	inches
10,55	6,60	5,97	6,10 ± 0,38	7,98 ± 0,51	mm



Dimensions are in inches/mm

### Recommended Land Pattern



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