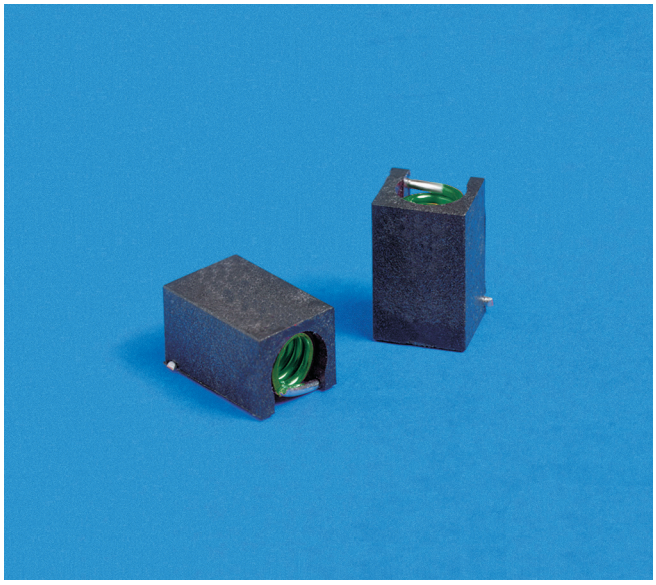
Air Core Inductors for Critical Applications ST536RAT



- 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

Terminations Tin-silver over copper. Other terminations available at additional cost.

Ambient temperature –40°C to +125°C with Imax current

Maximum part temperature +140°C (ambient + temp rise).

Storage temperature Component: –55°C to +140°C. Tape and reel packaging: –55°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 800 per 13″ reel Plastic tape: 24 mm wide, 0.3 mm thick, 12 mm pocket spacing, 6.1 mm pocket depth

Part number[1]	Turns	Inductance[2] (nH)	Percent tolerance	Q[3] min	SRF min[4] (GHz)	DCR max[5] (mOhm)	Imax (A)
ST536RAT90N_LZ	9	90	5,2	95	1.140	15	3.5
ST536RATR11_LZ	10	111	5,2	87	1.020	15	3.5
ST536RATR13_LZ	11	130	5,2	87	0.900	20	3.0
ST536RATR17_LZ	12	169	5,2	95	0.875	25	3.0
ST536RATR21_LZ	13	206	5,2	95	0.800	30	3.0
ST536RATR22_LZ	14	222	5,2	92	0.730	35	3.0
ST536RATR25_LZ	15	246	5,2	95	0.685	35	3.0
ST536RATR31_LZ	16	307	5,2	95	0.660	35	3.0
ST536RATR38_LZ	17	380	5,2	95	0.590	50	2.5
ST536RATR42_LZ	18	422	5,2	95	0.540	60	2.5
ST536RATR49_LZ	19	491	5,2	95	0.535	65	2.0
ST536RATR54_LZ	20	538	5,2	87	0.490	90	2.0

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

ST536RATR54GLZ

Tolerance: **G** = 2% **J** = 5%
Termination: **L** = Tin-silver over copper.
Special order:
T = Tin-silver-copper (95.5/4/0.5) over copper or **S** = Tin-lead (63/37) over copper.
Testing: **Z** = Unscreened
H = Group A screening per Coilcraft CP-SA-10001
All screening performed to the document's latest revision
Custom screening also available

2. Inductance measured at 50 MHz on an Agilent/HP 4286A or equivalent with a Coilcraft SMD-A test fixture and correlation.
3. Q measured at 50 MHz on an Agilent/HP 4291A or equivalent with a 16193A test fixture or equivalent.
4. SRF measured on an Agilent/HP 8753ES or equivalent with a Coilcraft CCF1268 test fixture.
5. DCR measured on a Keithley 580 Micro-Ohmmeter or equivalent.
6. Electrical specifications at 25°C.

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

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This product may not be used in medical or high risk applications without prior Coilcraft approval.
Specifications subject to change without notice.
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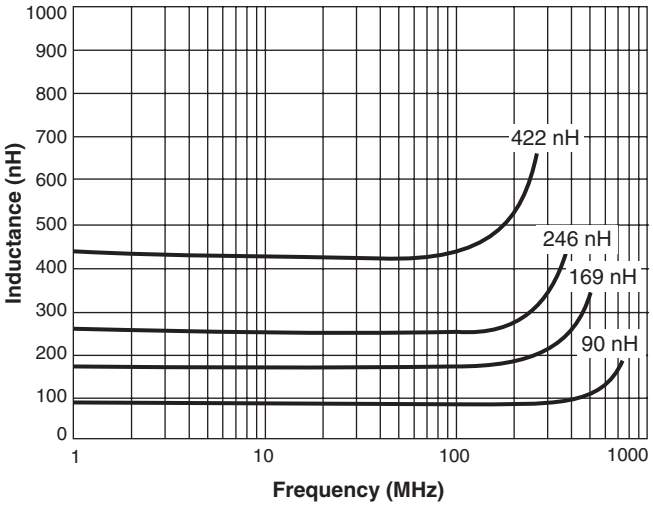
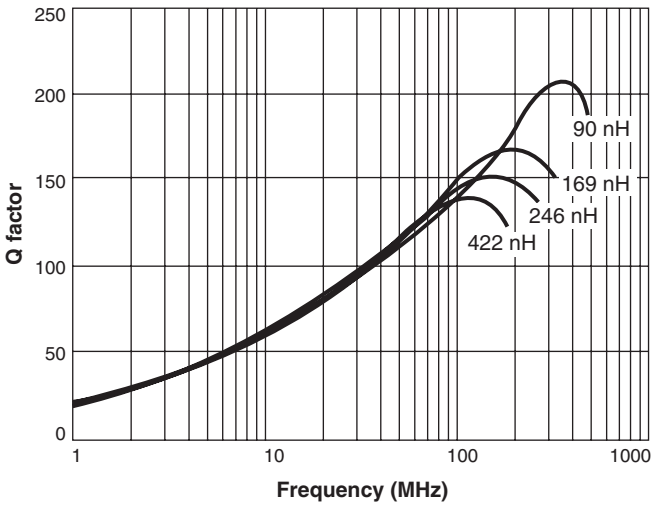
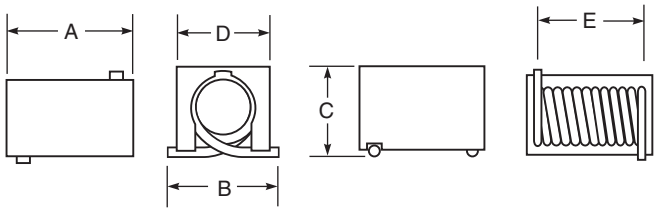
ST536RAT Series Air Core Inductors

Typical L vs Frequency



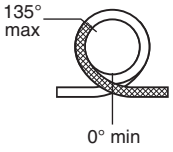
Typical Q vs Frequency



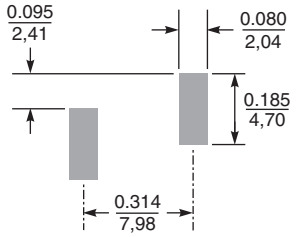


A max	B max	C max	D	E	
0.415	0.260	0.235	0.240 ±0.015	0.314 ±0.020	inches
10,55	6,60	5,97	6,10 ±0,38	7,98 ±0,51	mm

Strip Length



Suggested Land Pattern



Dimensions are in inches / mm

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