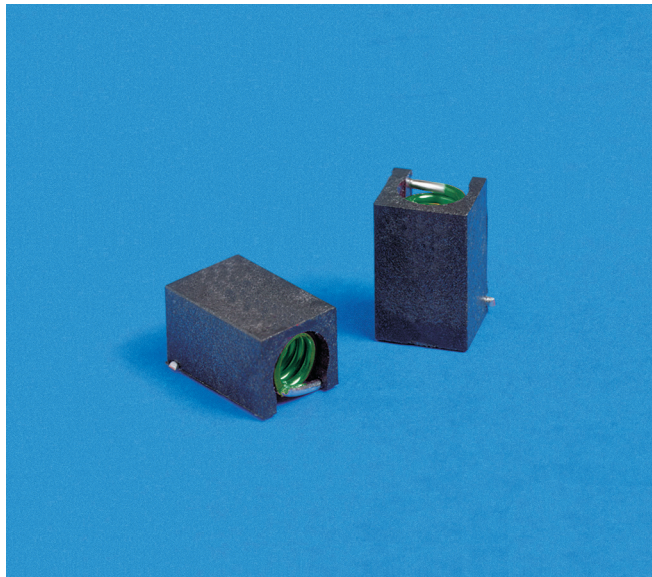


Air Core Inductors for Critical Applications ST536RAT



- 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 I_{max} 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

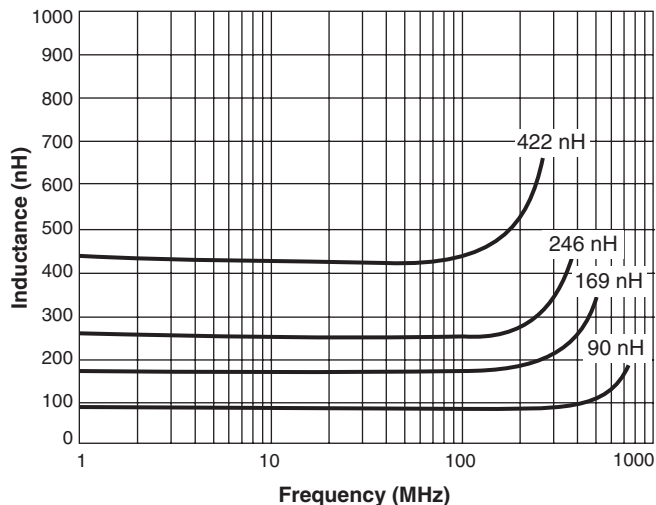
Resistance to soldering heat Max three 40 second reflows at +260°C, parts cooled to room temperature between cycles

Temperature Coefficient of Inductance (TCL) +5 to +70 ppm/°C

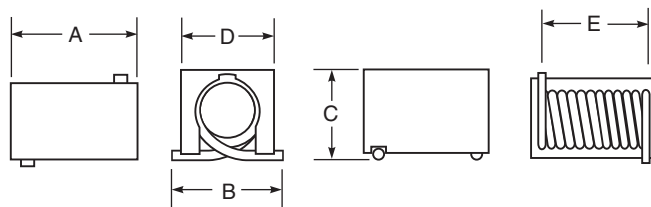
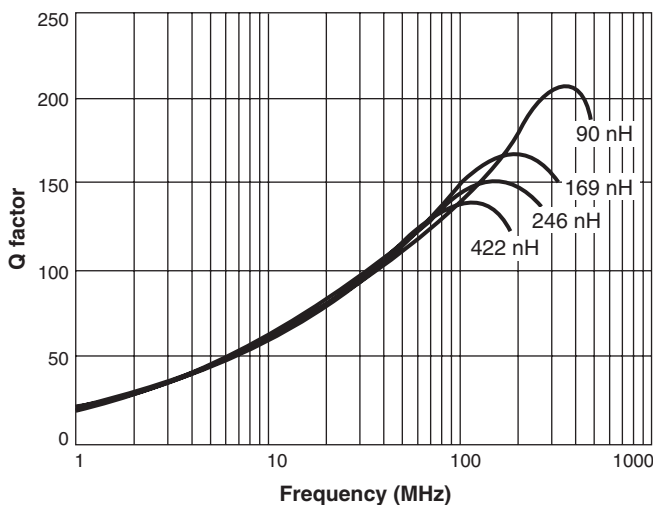
Moisture Sensitivity Level (MSL) 1 (unlimited floor life at <30°C / 85% relative humidity)

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

Typical L vs Frequency

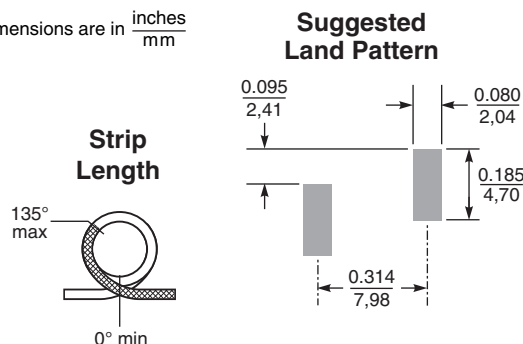


Typical Q vs Frequency

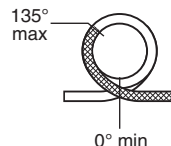


A max	B max	C max	D	E
0.415	0.260	0.235	0.240 ±0.015	0.314 ±0.020
10,55	6,60	5,97	6,10 ±0,38	7,98 ±0,51
inches mm				

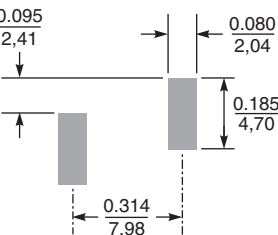
Dimensions are in $\frac{\text{inches}}{\text{mm}}$



Strip Length



Suggested Land Pattern



Document ST185-1 Revised 04/02/21



1102 Silver Lake Road
Cary, IL 60013
Phone 800-981-0363

Fax 847-639-1508
Email cps@coilcraft.com
www.coilcraft-cps.com

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

ST536RAT Series Air Core Inductors

Part number ¹	Turns	Inductance ² (nH)	Percent tolerance	Q ³ min	SRF min ⁴ (GHz)	DCR max ⁵ (mOhm)	I _{max} (A)
ST536RAT90N_L_	9	90	5,2	95	1.140	15	3.5
ST536RATR11_L_	10	111	5,2	87	1.020	15	3.5
ST536RATR13_L_	11	130	5,2	87	0.900	20	3.0
ST536RATR17_L_	12	169	5,2	95	0.875	25	3.0
ST536RATR21_L_	13	206	5,2	95	0.800	30	3.0
ST536RATR22_L_	14	222	5,2	92	0.730	35	3.0
ST536RATR25_L_	15	246	5,2	95	0.685	35	3.0
ST536RATR31_L_	16	307	5,2	95	0.660	35	3.0
ST536RATR38_L_	17	380	5,2	95	0.590	50	2.5
ST536RATR42_L_	18	422	5,2	95	0.540	60	2.5
ST536RATR49_L_	19	491	5,2	95	0.535	65	2.0
ST536RATR54_L_	20	538	5,2	87	0.490	90	2.0

1. When ordering, please specify **tolerance**, **termination** and **screening** 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.

Screening: Z = Unscreened

H = Coilcraft CP-SA-10001 Group A

- Screening performed to the document's latest revision.

- Screening not available for parts with 2% tolerance.

- Lot qualification (Group B) available.

- Country of origin restrictions available; prefix option G.

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.



CRITICAL PRODUCTS & SERVICES

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1102 Silver Lake Road
Cary, IL 60013
Phone 800-981-0363

Fax 847-639-1508
Email cps@coilcraft.com
www.coilcraft-cps.com

Document ST185-1 Revised 04/02/21

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