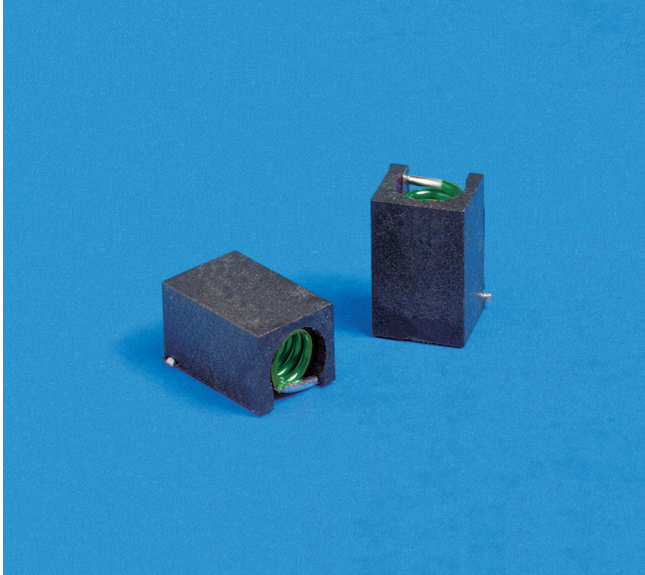


Air Core Inductors for Critical Applications ST536RAT



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

Ambient temperature -40°C to +125°C with I_{max} 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)

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)	I _{max} (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 = RoHS compliant tin-silver over copper.
Special order: T = RoHS tin-silver-copper (95.5/4/0.5) over copper or
S = non-RoHS tin-lead (63/37) over copper.

Testing: Z = COTS
H = Screening per Coilcraft CP-SA-10001

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.

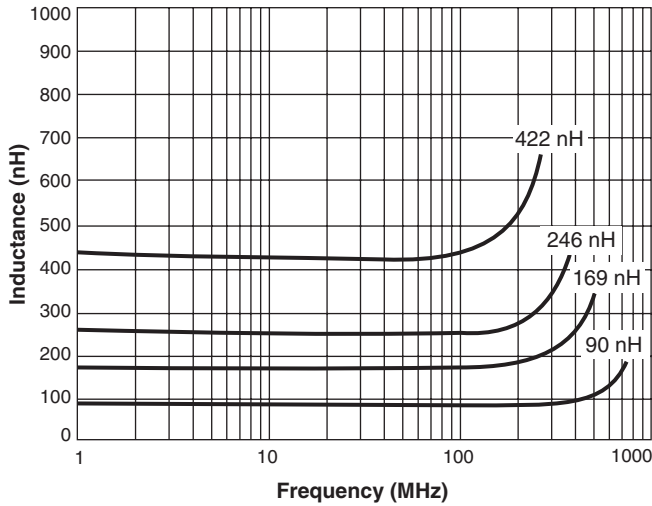
5. DCR measured on a Keithley 580 Micro-Ohmmeter or equivalent.

6. Electrical specifications at 25°C.

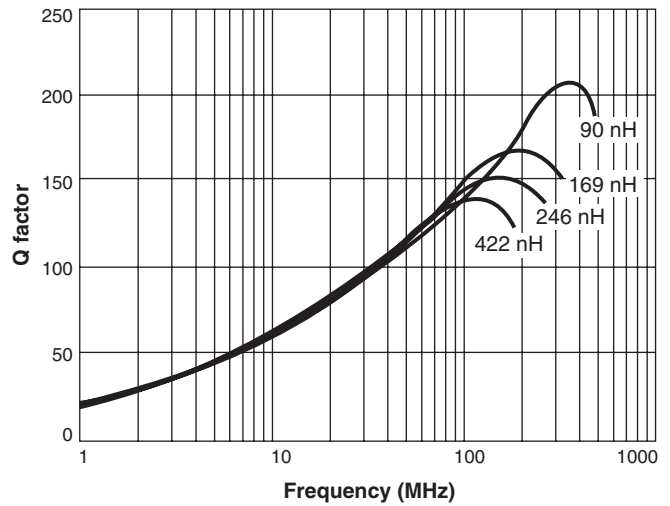
Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

ST536RAT Series Air Core Inductors

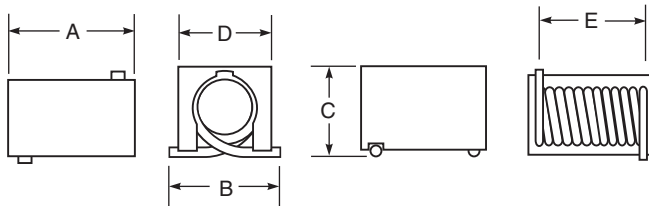
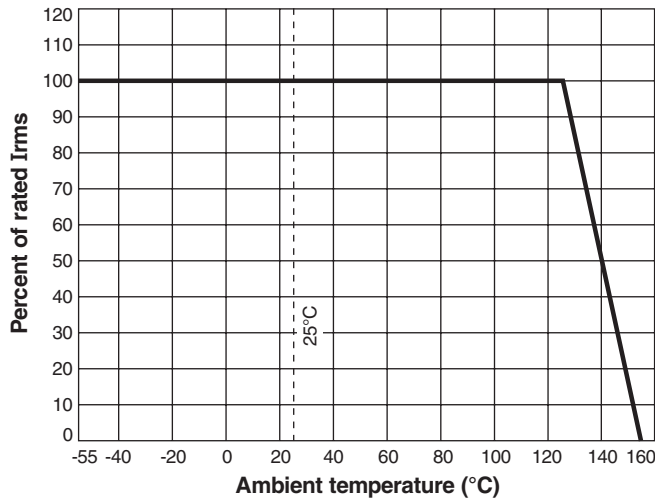
Typical L vs Frequency



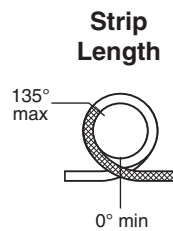
Typical Q vs Frequency



Typical Current Derating



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



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

Suggested Land Pattern

