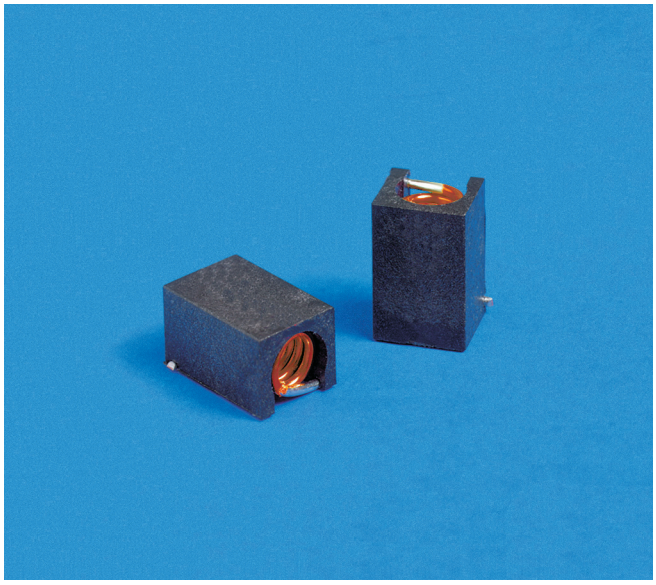
High-Reliability Air Core Inductors MS536RAT



- High Q over a wide range of frequencies
- High temperature materials allow operation in ambient temperatures up to 155°C.
- Tin-lead (63/37) terminations ensure the best possible board adhesion

Terminations Tin-lead (63/37) over copper

Ambient temperature –55°C to +125°C with Imax current, +125°C to +155°C with derated current

Storage temperature Component: –55°C to +155°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)

Enhanced crush-resistant 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)
MS536RAT90N_SZ	9	90	5,2	95	1.140	15	3.5
MS536RATR11_SZ	10	111	5,2	87	1.020	15	3.5
MS536RATR13_SZ	11	130	5,2	87	0.900	20	3.0
MS536RATR17_SZ	12	169	5,2	95	0.875	25	3.0
MS536RATR21_SZ	13	206	5,2	95	0.800	30	3.0
MS536RATR22_SZ	14	222	5,2	92	0.730	35	3.0
MS536RATR25_SZ	15	246	5,2	95	0.685	35	3.0
MS536RATR31_SZ	16	307	5,2	95	0.660	35	3.0
MS536RATR38_SZ	17	380	5,2	95	0.590	50	2.5
MS536RATR42_SZ	18	422	5,2	95	0.540	60	2.5
MS536RATR49_SZ	19	491	5,2	95	0.535	65	2.0
MS536RATR54_SZ	20	538	5,2	87	0.490	90	2.0

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

MS536RATR54GSZ

Tolerance: **G** = 2% **J** = 5%
Testing: **Z** = COTS
H = Screening per Coilcraft CP-SA-10001
N = Screening per Coilcraft CP-SA-10003

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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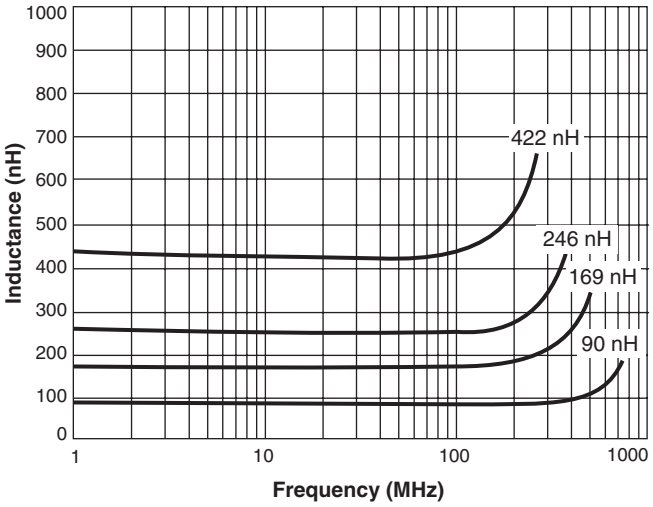
Specifications subject to change without notice.
Please check our website for latest information. Document MS185-1 Revised 10/24/11

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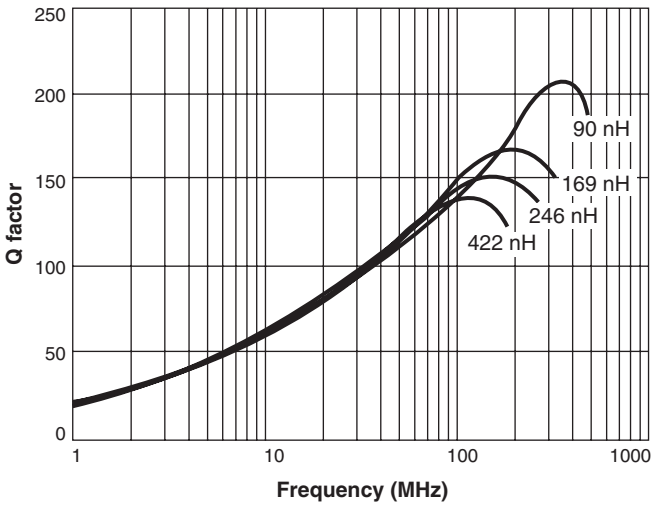
S-Parameter files
ON OUR WEB SITE
SPICE models
ON OUR WEB SITE

MS536RAT Series Air Core Inductors

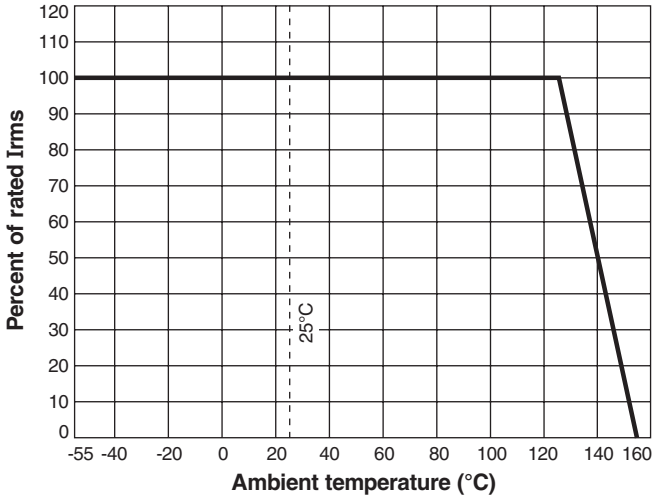
Typical L vs Frequency

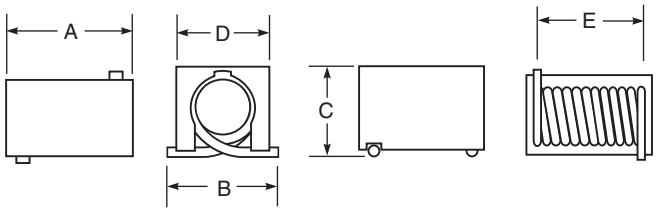


Typical Q vs Frequency



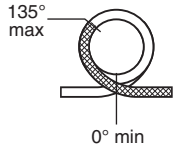
Typical Current Derating



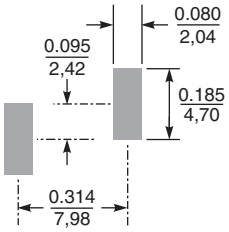


A max	B max	C max	D	E
0.415 10,55	0.260 6,60	0.235 5,97	0.240 ±0.015 6,10 ±0,38	0.314 ±0.020 7,98 ±0,51

Strip Length



Suggested Land Pattern



Dimensions are in inches / mm

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