

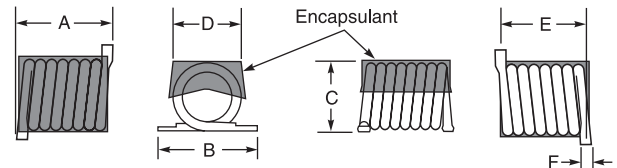
# 200°C Air Core Inductors AT350RAT AT394RAT



- High Q over a wide range of frequencies
- Special materials allow operation in ambient temperatures as low as -60°C and up to 200°C.
- Passes NASA low outgassing specifications

**Terminations** Tin-lead (63/37) over copper  
**Weight** AT350RAT: 6 mg – 18 mg; AT394RAT: 14 mg – 30 mg  
**Ambient temperature** -60°C to +150°C with I<sub>max</sub> current  
**Maximum part temperature** +200°C (ambient + temp rise).  
**Storage temperature** Component: -60°C to +200°C.  
 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**  
**AT350RAT:** 500 per 7" reel Plastic tape: 8 mm wide, 0.3 mm thick, 4 mm pocket spacing, 1.5 mm pocket depth  
**AT394RAT:** 500 per 7" reel Plastic tape: 12 mm wide, 0.3 mm thick, 4 mm pocket spacing, 1.6 mm pocket depth

Part number <sup>1</sup>	Turns	L <sup>2</sup> (nH)	Percent tol	Q <sup>3</sup> min	SRF min <sup>4</sup> (GHz)	DCR max <sup>5</sup> (mOhm)	I <sub>max</sub> (A)
AT350RAT1N7KSZ	2	1.65	10	100	10.0	4.0	1.6
AT350RAT2N6JSZ	3	2.55	5	100	8.2	5.0	1.6
AT350RAT3N9_SZ	4	3.85	5,2	100	7.5	6.0	1.6
AT350RAT5N4_SZ	5	5.40	5,2	100	7.0	8.0	1.6
AT394RAT5N6_SZ	6	5.60	5,2	100	6.5	9.0	1.6
AT394RAT7N2_SZ	7	7.15	5,2	100	6.0	10	1.6
AT394RAT8N8_SZ	8	8.80	5,2	100	6.0	12	1.6
AT394RAT9N9_SZ	9	9.85	5,2	100	5.2	13	1.6
AT394RAT13N_SZ	10	12.55	5,2	100	4.6	14	1.6



Size	A max	B max	C max	D	E	F max
350	0.095 2,41	0.135 3,43	0.060 1,52	0.055 ±0.010 1,40 ±0,25	0.072 ±0.010 1,83 ±0,25	0.020 0,51
394	0.165 4,19	0.135 3,43	0.062 1,58	0.055 ±0.010 1,40 ±0,25	0.144 ±0.012 3,66 ±0,30	0.020 0,51

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

**AT394RAT10GSZ**

**Tolerance:** G = 2% J = 5%

**Testing:** Z = Unscreened

H = Group A screening per Coilcraft CP-SA-10001

T = Screening per MIL-STD-981

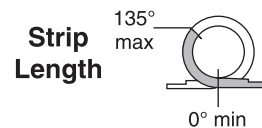
U = Screening per EEE-INST-002

F = Screening per ESCC 3201

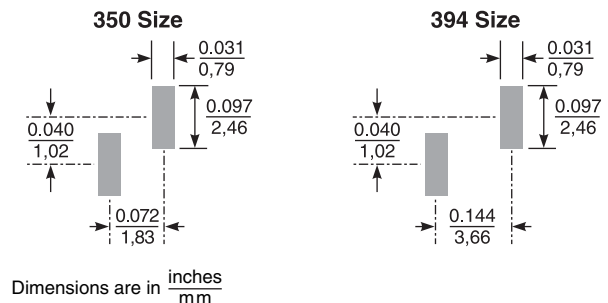
All screening performed to the document's latest revision

Custom screening also available

2. Inductance measured at 800 MHz on an Agilent/HP 4286A or equivalent with a Coilcraft SMD-A test fixture and correlation.
  3. Q measured at 800 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. Parts with SRF >5 GHz are verified to >5 GHz in screening.
  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.



### Suggested Land Patterns



CRITICAL PRODUCTS & SERVICES

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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. Please check our web site for latest information.

**S-Parameter files**

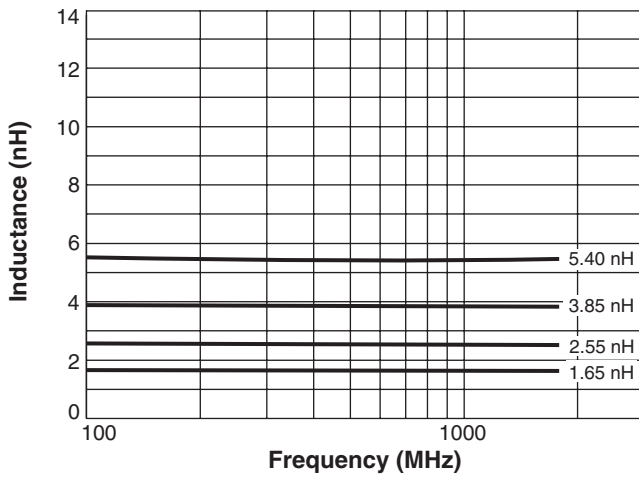
ON OUR WEB SITE

**SPICE models**

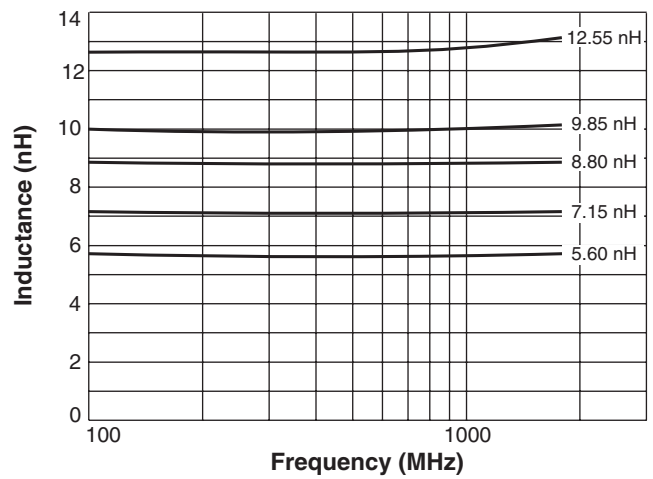
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# AT350RAT/AT394RAT Air Core Inductors

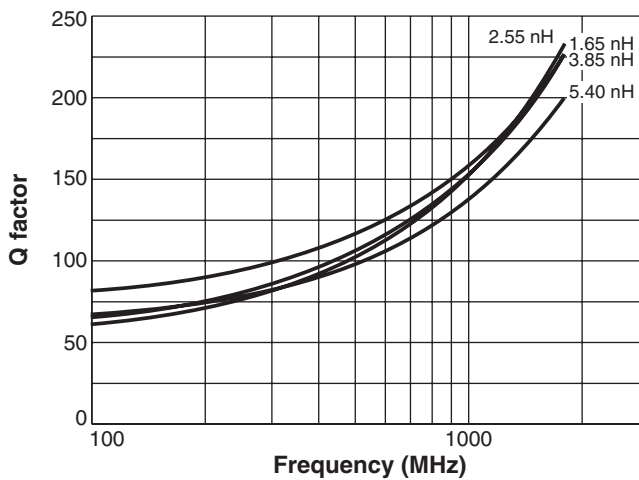
## L vs Frequency – AT350RAT Series



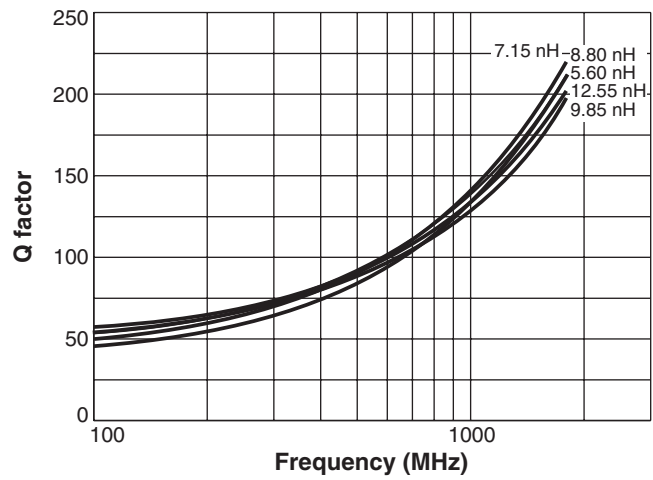
## L vs Frequency – AT394RAT Series



## Q vs Frequency – AT350RAT Series



## Q vs Frequency – AT394RAT Series



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