

# 240°C Air Core Inductors AT392RAS



- Excellent Q factors – up to 130
- Current handling as high as 4.0 Amps!
- 5 inductance values from 8.1 to 27.3 nH
- Flat top and bottom for reliable pick and place and mechanical stability
- Special materials allow operation in ambient temperatures as low as -60°C and up to 240°C.
- Passes NASA low outgassing specifications

**Terminations** Tin-lead (63/37) over copper

**Ambient temperature** -60°C to +185°C with I<sub>max</sub> current

**Maximum part temperature** +240°C (ambient + temp rise)

**Storage temperature** Component: -60°C to +240°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)

Part number <sup>1</sup>	Inductance <sup>2</sup> (nH)	% tol	Q <sup>3</sup> min	SRF min <sup>4</sup> (GHz)	DCR max (mOhm)	I <sub>max</sub> (A)
AT392RAS8N1_SZ	8.1	5,2	100	4.0	6.0	4.0
AT392RAS12N_SZ	12.1	5,2	100	3.4	7.0	4.0
AT392RAS17N_SZ	16.6	5,2	100	2.9	8.0	4.0
AT392RAS22N_SZ	21.5	5,2	100	2.6	9.0	4.0
AT392RAS27N_SZ	27.3	5,2	100	2.3	10.0	4.0

1. Please specify **tolerance** and **testing** codes:

**AT392RAS27NGSZ**

**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

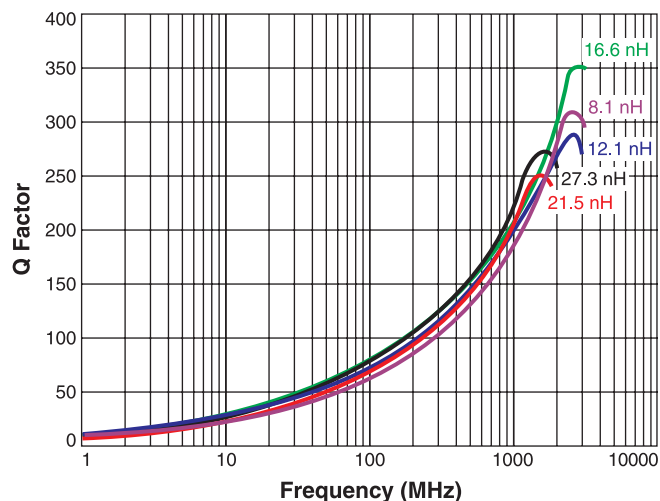
Testing is performed using 155°C as max component temperature

2. Inductance measured at 400 MHz, 0.1 V<sub>rms</sub>, 0 A using an Agilent/HP 4287A LCR meter or equivalent with a Coilcraft SMD-A test fixture and Coilcraft-provided correlation pieces.
3. Q measured at 400 MHz using an Agilent/HP 4291A impedance analyzer or equivalent.
4. SRF measured using an Agilent/HP 8753 network analyzer or equivalent and a Coilcraft CCF1295 test fixture.
5. Electrical specifications at 25°C.

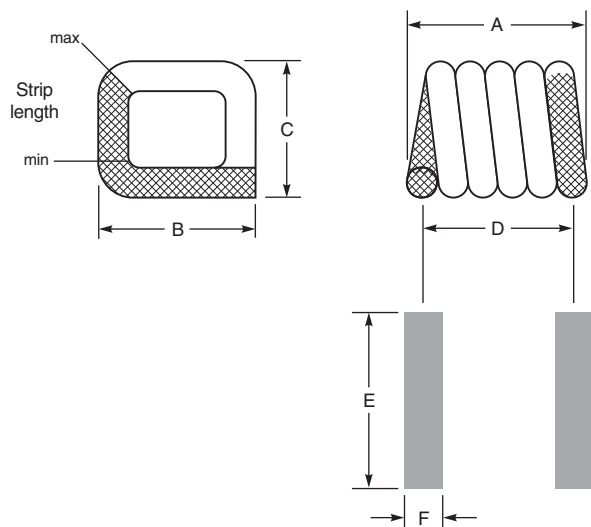
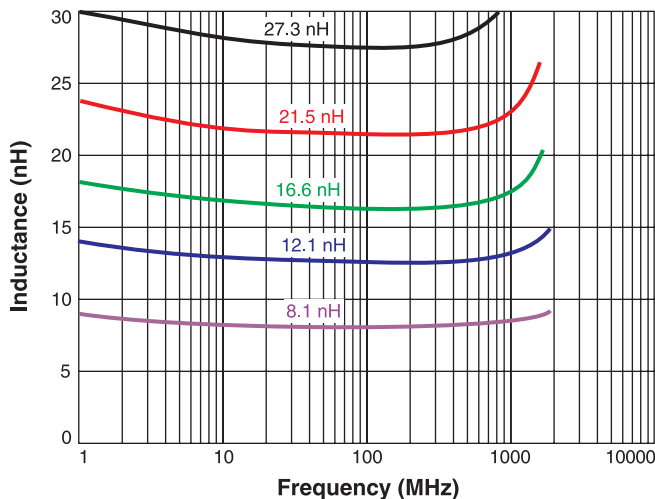
Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

# AT392RAS Series Air Core Inductors

## Q vs Frequency



## L vs Frequency



**Recommended Land Pattern**

**Packaging** 2000/7" reel; 7500/13" reel  
 Plastic tape: 12 mm wide, 0.254 mm thick, 4 mm pocket spacing

Part number	A	B	C	D	E	F	Weight (mg)	Tape pocket depth (mm)
AT392RAS8N1	1,473 ±0,152	2,134 ±0,152	1,829 ±0,203	1,12	2,8	0,64	12,8	2,01
AT392RAS12N	1,854 ±0,152	2,134 ±0,152	1,829 ±0,203	1,45	2,8	0,64	16,9	1,96
AT392RAS17N	2,210 ±0,152	2,134 ±0,152	1,829 ±0,203	1,83	2,8	0,64	21,1	2,01
AT392RAS22N	2,565 ±0,152	2,134 ±0,152	1,829 ±0,203	2,18	2,8	0,64	24,7	1,98
AT392RAS27N	2,972 ±0,152	2,134 ±0,152	1,829 ±0,203	2,57	2,8	0,64	28,7	1,01

All dimensions are in mm.



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