

Air Core Inductor for Critical Applications



- Excellent Q factors – up to 150 at 400 MHz!
- Current handling of 3.5 Amps
- Flat top and bottom for reliable pick and place and mechanical stability

Terminations Tin-silver over copper

Weight 1.16 g

Ambient temperature –55°C to +125°C with I_{max} current

Maximum part temperature +145°C (ambient + temp rise).

Storage temperature Component: –55°C to +145°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)

Packaging 150 per 7" reel Plastic tape: 24 mm wide, 0.33 mm thick, 12 mm pocket spacing, 7.49 mm pocket depth

Part number ¹	Inductance ² (nH)	Percent tolerance	Q min ³	Test frequency (MHz)	SRF min ⁴ (GHz)	DCR max (mOhm)	I _{max} ⁵ (A)
ST573RAS501_LZ	500	5,2	120	50	0.485	16.5	3.5

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

ST573RAS501JLZ

Tolerance: G = 2% J = 5%

Termination: L = Tin-silver (96.5/3.5) over copper.

Special order

T = Tin-silver-copper (95.5/4/0.5) over copper or

S = Tin-lead (63/37) over copper.

Testing: Z = Unscreened

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

All screening performed to the document's latest revision
Custom screening also available

2. Inductance measured at specified test frequency, 0.1 V_{rms}, 0 A using an Agilent/HP 4287A LCR meter with the Coilcraft CCF1197A test fixture.

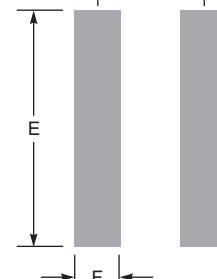
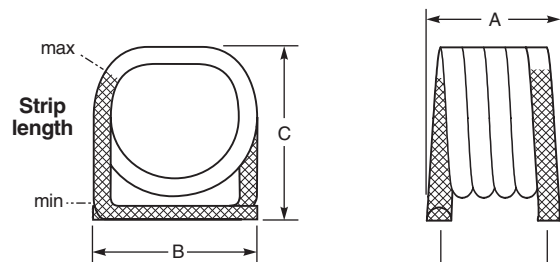
3. Q measured at specified test frequency, using an Agilent/HP 4291A impedance analyzer.

4. SRF measured using an Agilent/HP 8753 network analyzer and Coilcraft CCF1200 test fixture.

5. Current that causes a 20°C temperature rise from 25°C ambient. This information is for reference only and does not represent absolute maximum ratings.

6. Electrical specifications at 25°C.

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



**Suggested
Land Pattern**

A	B	C	D	E	F	
0.550 ±0.015	0.295 ±0.010	0.285 ±0.010	0.520	0.325	0.09	inches
14,10 ±0,381	7,49 ±0,254	7,24 ±0,254	13,21	8,26	2,29	mm

Coilcraft CPS
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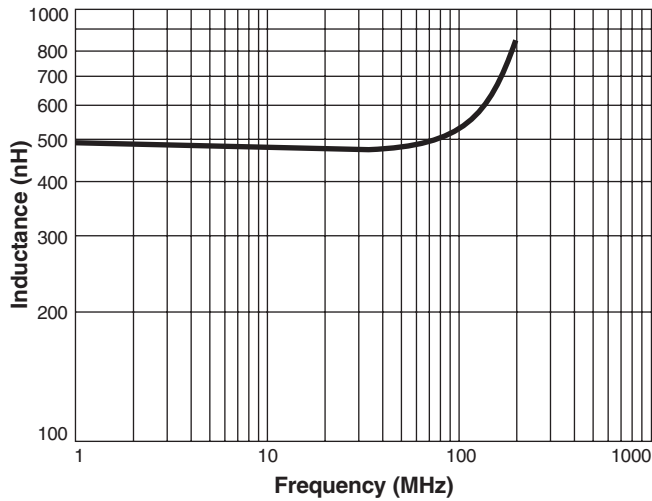
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ST573RAS Square Air Core Inductor

L vs Frequency



Q vs Frequency

