

Chip Inductors for Critical Applications ST376RAA

- High SRF and excellent Q values
- Tight tolerances, many values at 1%
- 31 inductance values from 3.3 to 1200 nH

Part number ¹	Inductance ² (nH)	Percent tolerance	Q min ³	SRF min ⁴ (MHz)	DCR max ⁵ (Ohms)	Imax (mA)
ST376RAA030JLZ	3.3 @ 100 MHz	5	29 @ 300 MHz	>5000	0.050	900
ST376RAA060JLZ	6.8 @ 100 MHz	5	24 @ 300 MHz	4380	0.070	900
ST376RAA100JLZ	10 @ 100 MHz	5,2,1	31 @ 300 MHz	3440	0.080	900
ST376RAA120_LZ	12 @ 100 MHz	5,2,1	40 @ 300 MHz	2560	0.100	900
ST376RAA150_LZ	15 @ 100 MHz	5,2,1	38 @ 300 MHz	2520	0.100	900
ST376RAA180_LZ	18 @ 100 MHz	5,2,1	50 @ 300 MHz	2260	0.100	900
ST376RAA220_LZ	22 @ 100 MHz	5,2,1	50 @ 300 MHz	2120	0.100	900
ST376RAA270_LZ	27 @ 100 MHz	5,2,1	50 @ 300 MHz	1800	0.110	900
ST376RAA330_LZ	33 @ 100 MHz	5,2,1	55 @ 300 MHz	1800	0.110	900
ST376RAA390_LZ	39 @ 100 MHz	5,2,1	55 @ 300 MHz	1800	0.120	900
ST376RAA470_LZ	47 @ 100 MHz	5,2,1	55 @ 300 MHz	1500	0.130	900
ST376RAA560_LZ	56 @ 100 MHz	5,2,1	55 @ 300 MHz	1400	0.140	900
ST376RAA680_LZ	68 @ 100 MHz	5,2,1	48 @ 150 MHz	1180	0.260	600
ST376RAA820_LZ	82 @ 100 MHz	5,2,1	52 @ 150 MHz	1120	0.210	700
ST376RAA101_LZ	100 @ 100 MHz	5,2,1	55 @ 150 MHz	1040	0.260	650
ST376RAA121_LZ	120 @ 100 MHz	5,2,1	53 @ 150 MHz	1040	0.260	620
ST376RAA151_LZ	150 @ 100 MHz	5,2,1	53 @ 150 MHz	920	0.310	720
ST376RAA181_LZ	180 @ 50 MHz	5,2,1	53 @ 150 MHz	780	0.430	580
ST376RAA221_LZ	220 @ 50 MHz	5,2,1	51 @ 150 MHz	700	0.500	550
ST376RAA271_LZ	270 @ 50 MHz	5,2,1	53 @ 150 MHz	630	0.560	470
ST376RAA331_LZ	330 @ 50 MHz	5,2,1	30 @ 35 MHz	570	0.620	370
ST376RAA391_LZ	390 @ 50 MHz	5,2,1	31 @ 35 MHz	540	0.750	370
ST376RAA471_LZ	470 @ 50 MHz	5,2,1	31 @ 35 MHz	500	1.30	320
ST376RAA561_LZ	560 @ 35 MHz	5,2,1	31 @ 35 MHz	440	1.34	300
ST376RAA621_LZ	620 @ 35 MHz	5,2,1	32 @ 35 MHz	440	1.60	270
ST376RAA681_LZ	680 @ 35 MHz	5,2,1	32 @ 35 MHz	410	1.58	260
ST376RAA751_LZ	750 @ 35 MHz	5,2,1	32 @ 35 MHz	400	2.20	220
ST376RAA821_LZ	820 @ 35 MHz	5,2,1	31 @ 35 MHz	370	1.82	240
ST376RAA911_LZ	910 @ 35 MHz	5,2,1	31 @ 35 MHz	350	2.85	190
ST376RAA102_LZ	1000 @ 35 MHz	5,2,1	32 @ 35 MHz	360	2.80	190
ST376RAA122_LZ	1200 @ 35 MHz	5,2,1	32 @ 35 MHz	320	3.20	170

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

ST376RAA122JLZ

Tolerance: F = 1% G = 2% J = 5%

Termination: L = RoHS compliant silver-palladium-platinum glass frit.

Special order:

S = Tin-lead (63/37) over silver-platinum-glass frit.

T = Tin-silver-copper (95.5/4/0.5) over silver-platinum-glass frit.

P = Tin-lead (63/37) over tin over nickel over silver-platinum-glass frit.

Q = Tin-silver-copper (95.5/4/0.5) over tin over nickel over silver-platinum-glass frit.

Testing: Z = COTS

H = Screening per Coilcraft CP-SA-10001

2. Inductance measured using a Coilcraft SMD-A fixture in an Agilent/HP 4286A impedance analyzer or equivalent with Coilcraft-provided correlation pieces.

3. Q measured using an Agilent/HP 4291A impedance Analyzer with an Agilent/HP 16197 test fixture or equivalents.

4. SRF measured using an Agilent/HP 8753ES network analyzer or equivalent and a Coilcraft CCF1297 test fixture.

5. DCR measured on a Keithley 580 micro-ohmmeter or equivalent and a Coilcraft CCF858 fixture.

6. Electrical specifications at 25°C.

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



CRITICAL PRODUCTS & SERVICES

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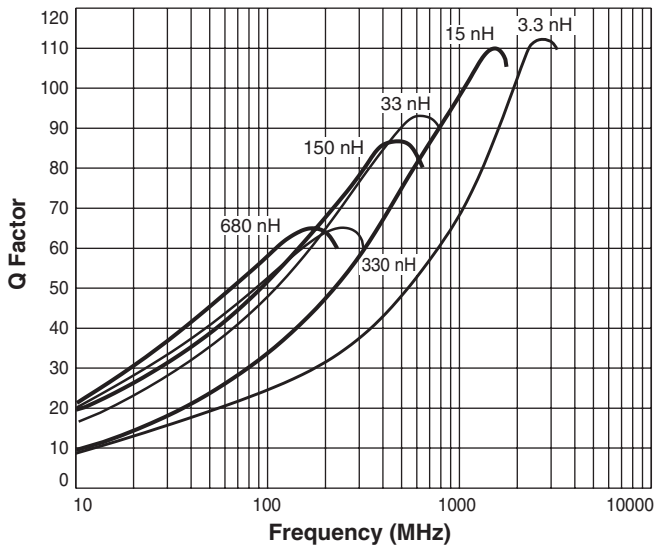
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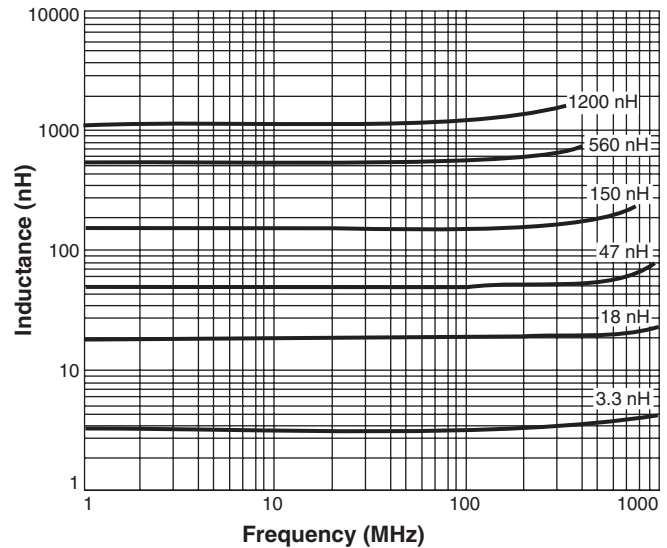
This product may not be used in medical or high risk applications without prior Coilcraft approval. Specifications subject to change without notice. Please check our web site for latest information.

ST376RAA Series (1206)

Typical Q vs Frequency



Typical L vs Frequency



Core material Ceramic

Terminations RoHS compliant silver-palladium-platinum-glass frit. Other terminations available at additional cost.

Weight: 19.5 – 23.0 mg

Ambient temperature -40°C to +125°C with I_{max} current, +125°C to +140°C with derated current

Storage temperature Component: -55°C to +140°C. Tape and reel packaging: -55°C to +80°C

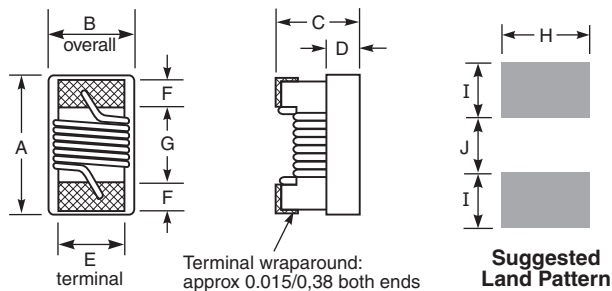
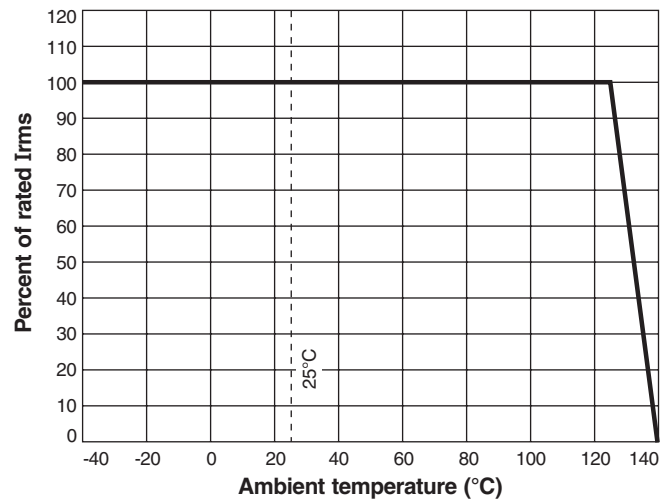
Resistance to soldering heat Max three 40 second reflows at +260°C, parts cooled to room temperature between cycles

Temperature Coefficient of Inductance (TCL) +25 to +155 ppm/°C

Moisture Sensitivity Level (MSL) 1 (unlimited floor life at <30°C / 85% relative humidity)

Enhanced crush-resistant packaging 2000 per 7" reel
Plastic tape: 8 mm wide, 0.3 mm thick, 4 mm pocket spacing, 1.6 mm pocket depth

Current Derating



Amax	Bmax	Cmax	Dref	E	F	G	H	I	J
0.140	0.085	0.060	0.020	0.056	0.020	0.080	0.076	0.040	0.070
3,56	2,16	1,52	0,51	1,42	0,51	2,03	1,93	1,02	1,78

Note: Dimensions are before optional solder application. For maximum overall dimensions including solder, add 0.0025 in / 0,064 mm to **B** and 0.006 in / 0,15 mm to **A** and **C**.

