

Chip Inductors for Critical Applications ST336RAA

The ST336RAA inductors provide exceptional Q values, even at high frequencies. They have a ceramic body and

wire wound construction to provide the highest SRFs available in 0805 size.

Part number ¹	Inductance ² (nH)	Percent tolerance	Q min ³	SRF min ⁴ (MHz)	DCR max ⁵ (Ohms)	I _{max} (mA)	Color code
ST336RAA020JLZ	2.8 @ 250 MHz	5	57 @ 1000 MHz	5000	0.06	800	Gray
ST336RAA3N0JLZ	3.0 @ 250 MHz	5	61 @ 1000 MHz	5000	0.06	800	White
ST336RAA030JLZ	3.3 @ 250 MHz	5	48 @ 1000 MHz	5000	0.08	600	Black
ST336RAA050JLZ	5.6 @ 250 MHz	5	75 @ 1000 MHz	4760	0.08	600	Orange
ST336RAA060JLZ	6.8 @ 250 MHz	5	54 @ 1000 MHz	4440	0.11	600	Brown
ST336RAA070JLZ	7.5 @ 250 MHz	5	56 @ 1000 MHz	3840	0.14	600	Green
ST336RAA080_LZ	8.2 @ 250 MHz	5,2	63 @ 1000 MHz	3560	0.12	600	Red
ST336RAA100_LZ	10 @ 250 MHz	5,2	57 @ 500 MHz	3460	0.10	600	Blue
ST336RAA120_LZ	12 @ 250 MHz	5,2	46 @ 500 MHz	3180	0.15	600	Orange
ST336RAA150_LZ	15 @ 250 MHz	5,2	41 @ 500 MHz	2560	0.17	600	Yellow
ST336RAA180_LZ	18 @ 250 MHz	5,2	48 @ 500 MHz	2480	0.20	600	Green
ST336RAA220_LZ	22 @ 250 MHz	5,2	59 @ 500 MHz	2080	0.22	500	Blue
ST336RAA240_LZ	24 @ 250 MHz	5,2	59 @ 500 MHz	1920	0.22	500	Gray
ST336RAA270_LZ	27 @ 250 MHz	5,2	56 @ 500 MHz	2060	0.25	500	Violet
ST336RAA330_LZ	33 @ 250 MHz	5,2,1	64 @ 500 MHz	1720	0.27	500	Gray
ST336RAA360_LZ	36 @ 250 MHz	5,2,1	57 @ 500 MHz	1520	0.27	500	Orange
ST336RAA390_LZ	39 @ 250 MHz	5,2,1	44 @ 250 MHz	1600	0.29	500	White
ST336RAA430_LZ	43 @ 200 MHz	5,2,1	45 @ 250 MHz	1440	0.34	500	Yellow
ST336RAA470_LZ	47 @ 200 MHz	5,2,1	44 @ 250 MHz	1360	0.31	470	Black
ST336RAA560_LZ	56 @ 200 MHz	5,2,1	49 @ 250 MHz	1280	0.34	460	Brown
ST336RAA680_LZ	68 @ 200 MHz	5,2,1	52 @ 250 MHz	1200	0.38	440	Red
ST336RAA820_LZ	82 @ 150 MHz	5,2,1	51 @ 250 MHz	1060	0.42	400	Orange
ST336RAA910_LZ	91 @ 150 MHz	5,2,1	49 @ 250 MHz	1060	0.48	390	Black
ST336RAA101_LZ	100 @ 150 MHz	5,2,1	54 @ 250 MHz	1000	0.46	390	Yellow
ST336RAA111_LZ	110 @ 150 MHz	5,2	38 @ 250 MHz	880	0.48	390	Brown
ST336RAA121_LZ	120 @ 150 MHz	5,2,1	52 @ 250 MHz	880	0.51	380	Green
ST336RAA151_LZ	150 @ 100 MHz	5,2,1	33 @ 100 MHz	730	0.56	340	Blue
ST336RAA181_LZ	180 @ 100 MHz	5,2,1	37 @ 100 MHz	730	0.64	340	Violet
ST336RAA221_LZ	220 @ 100 MHz	5,2	36 @ 100 MHz	650	0.70	330	Gray
ST336RAA241_LZ	240 @ 100 MHz	5,2	36 @ 100 MHz	610	1.00	270	Red
ST336RAA271_LZ	270 @ 100 MHz	5,2	36 @ 100 MHz	580	1.00	260	White
ST336RAA331_LZ	330 @ 100 MHz	5,2	36 @ 100 MHz	520	1.40	230	Black
ST336RAA391_LZ	390 @ 100 MHz	5,2	34 @ 100 MHz	480	1.50	210	Brown
ST336RAA471_LZ	470 @ 50 MHz	5,2	24 @ 50 MHz	300	1.76	230	Violet
ST336RAA561_LZ	560 @ 25 MHz	5,2	21 @ 50 MHz	260	1.90	210	Orange
ST336RAA681_LZ	680 @ 25 MHz	5,2	21 @ 50 MHz	220	2.20	190	Green
ST336RAA821_LZ	820 @ 25 MHz	5,2	23 @ 50 MHz	240	2.35	170	Blue

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

ST336RAA821GLZ

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

Termination: L = Silver-palladium-platinum glass frit.

Special order:

A = Gold over nickel over moly-mag

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 = 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 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 with an Agilent/HP 16197A test fixture or equivalents.

4. SRF measured on an Agilent 8753ES or equivalent with a Coilcraft CCF1297 test fixture.

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

6. Electrical specifications at 25°C.

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



CRITICAL PRODUCTS & SERVICES

1102 Silver Lake Road
Cary, IL 60013
Phone 800-981-0363

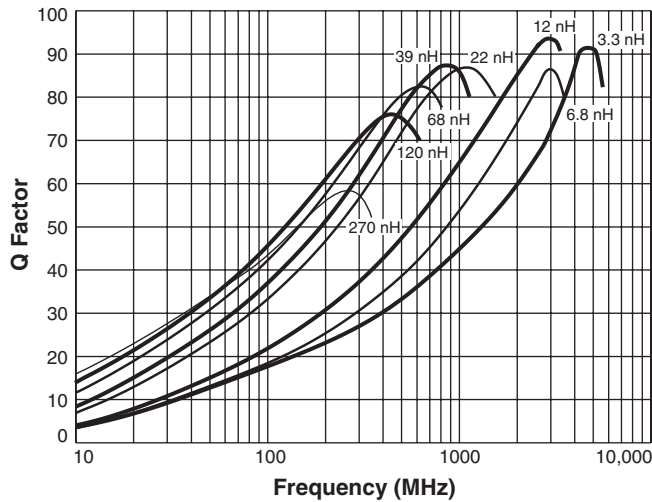
Fax 847-639-1508
Email cps@coilcraft.com
www.coilcraft-cps.com

Document ST100-1 Revised 07/20/18

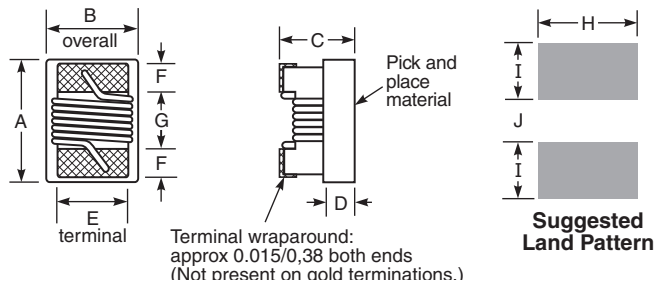
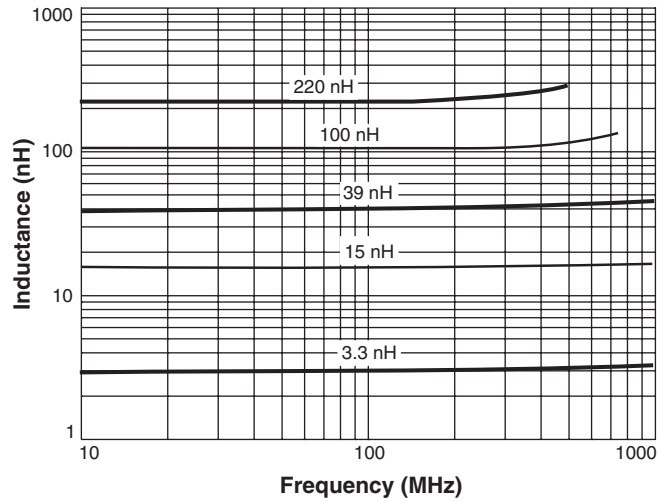
This product may not be used in medical or high risk applications without prior Coilcraft approval. Specifications subject to change without notice. Please check our web site for latest information.

ST336RAA Series (0805)

Typical Q vs Frequency



Typical L vs Frequency



A max	B max	C max	D ref	E	F	G	H	I	J
0.090	0.068	0.060	0.020	0.050	0.020	0.040	0.070	0.040	0.030
2,29	1,73	1,52	0,51	1,27	0,51	1,02	1,78	1,02	0,76

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.

Core material Ceramic

Terminations Silver-palladium-platinum-glass frit. Other terminations available at additional cost.

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

Maximum part temperature +140°C (ambient + temp rise).

Storage temperature Component: -55°C to +140°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) +25 to +155 ppm/°C

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

Packaging 2000 per 7" reel Plastic tape: 8 mm wide, 0.23 mm thick, 4 mm pocket spacing, 1.65 mm pocket depth

COILCRAFT ACCURATE
PRECISION REPEATABLE
MEASUREMENTS
SEE WEB SITE **TEST FIXTURES**

Coilcraft CPS
CRITICAL PRODUCTS & SERVICES

1102 Silver Lake Road
Cary, IL 60013
Phone 800-981-0363

Fax 847-639-1508
Email cps@coilcraft.com
www.coilcraft-cps.com

Document ST100-2 Revised 07/20/18

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.