

High-Reliability Chip Inductors ML336RAA

The ML336RAA 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.

This robust version of Coilcraft's standard 0805CS series features high temperature materials that allow operation in ambient temperatures up to 155°C.

Part number ¹	Inductance ² (nH)	Percent tolerance	Q min ³	SRF min ⁴ (MHz)	DCR max ⁵ (Ohms)	I _{max} (mA)	Color code
ML336RAA020JLZ	2.8@ 250 MHz	5	57@ 1000 MHz	5000	0.06	800	Gray
ML336RAA3N0JLZ	3.0@ 250 MHz	5	61@ 1000 MHz	5000	0.06	800	White
ML336RAA030JLZ	3.3@ 250 MHz	5	48@ 1000 MHz	5000	0.08	600	Black
ML336RAA050JLZ	5.6@ 250 MHz	5	75@ 1000 MHz	4760	0.08	600	Orange
ML336RAA060JLZ	6.8@ 250 MHz	5	54@ 1000 MHz	4440	0.11	600	Brown
ML336RAA070JLZ	7.5@ 250 MHz	5	56@ 1000 MHz	3840	0.14	600	Green
ML336RAA080_LZ	8.2@ 250 MHz	5,2	63@ 1000 MHz	3560	0.12	600	Red
ML336RAA100_LZ	10@ 250 MHz	5,2,1	57@ 500 MHz	3460	0.10	600	Blue
ML336RAA120_LZ	12@ 250 MHz	5,2,1	46@ 500 MHz	3180	0.15	600	Orange
ML336RAA150_LZ	15@ 250 MHz	5,2,1	41@ 500 MHz	2560	0.17	600	Yellow
ML336RAA180_LZ	18@ 250 MHz	5,2,1	48@ 500 MHz	2480	0.20	600	Green
ML336RAA220_LZ	22@ 250 MHz	5,2,1	59@ 500 MHz	2080	0.22	500	Blue
ML336RAA240_LZ	24@ 250 MHz	5,2,1	59@ 500 MHz	1920	0.22	500	Gray
ML336RAA270_LZ	27@ 250 MHz	5,2,1	56@ 500 MHz	2060	0.25	500	Violet
ML336RAA330_LZ	33@ 250 MHz	5,2,1	64@ 500 MHz	1720	0.27	500	Gray
ML336RAA360_LZ	36@ 250 MHz	5,2,1	57@ 500 MHz	1520	0.27	500	Orange
ML336RAA390_LZ	39@ 250 MHz	5,2,1	44@ 250 MHz	1600	0.29	500	White
ML336RAA430_LZ	43@ 200 MHz	5,2,1	45@ 250 MHz	1440	0.34	500	Yellow
ML336RAA470_LZ	47@ 200 MHz	5,2,1	44@ 250 MHz	1360	0.31	470	Black
ML336RAA560_LZ	56@ 200 MHz	5,2,1	49@ 250 MHz	1280	0.34	460	Brown
ML336RAA680_LZ	68@ 200 MHz	5,2,1	52@ 250 MHz	1200	0.38	440	Red
ML336RAA820_LZ	82@ 150 MHz	5,2,1	51@ 250 MHz	1060	0.42	400	Orange
ML336RAA910_LZ	91@ 150 MHz	5,2,1	49@ 250 MHz	1060	0.48	390	Black
ML336RAA101_LZ	100@ 150 MHz	5,2,1	54@ 250 MHz	1000	0.46	390	Yellow
ML336RAA111_LZ	110@ 150 MHz	5,2,1	38@ 250 MHz	880	0.48	390	Brown
ML336RAA121_LZ	120@ 150 MHz	5,2,1	52@ 250 MHz	880	0.51	380	Green
ML336RAA151_LZ	150@ 100 MHz	5,2,1	33@ 100 MHz	730	0.56	340	Blue
ML336RAA181_LZ	180@ 100 MHz	5,2,1	37@ 100 MHz	730	0.64	340	Violet
ML336RAA221_LZ	220@ 100 MHz	5,2,1	36@ 100 MHz	650	0.70	330	Gray
ML336RAA241_LZ	240@ 100 MHz	5,2,1	36@ 100 MHz	610	1.00	270	Red
ML336RAA271_LZ	270@ 100 MHz	5,2,1	36@ 100 MHz	580	1.00	260	White
ML336RAA331_LZ	330@ 100 MHz	5,2,1	36@ 100 MHz	520	1.40	230	Black
ML336RAA391_LZ	390@ 100 MHz	5,2,1	34@ 100 MHz	480	1.50	210	Brown
ML336RAA471_LZ	470@ 50 MHz	5,2	24@ 50 MHz	300	1.76	230	Violet
ML336RAA561_LZ	560@ 25 MHz	5,2	21@ 50 MHz	260	1.90	210	Orange
ML336RAA681_LZ	680@ 25 MHz	5,2	21@ 50 MHz	220	2.20	190	Green
ML336RAA821_LZ	820@ 25 MHz	5,2	23@ 50 MHz	240	2.35	170	Blue

1. When ordering, please specify **tolerance** code:

ML336RAA821**GLZ**

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

- Inductance measured using a Coilcraft SMD-A fixture in an Agilent/HP 4286A impedance analyzer or equivalent with Coilcraft-provided correlation pieces.
 - Q measured using an Agilent/HP 4291A with an Agilent/HP 16197A test fixture or equivalents.
 - SRF measured on an Agilent 8753ES or equivalent with a Coilcraft CCF1297 test fixture.
 - DCR measured on a Keithley micro-ohmmeter or equivalent and a Coilcraft CCF858 test fixture.
 - Electrical specifications at 25°C.
- Refer to Doc 362 "Soldering Surface Mount Components" before soldering.



CRITICAL PRODUCTS & SERVICES

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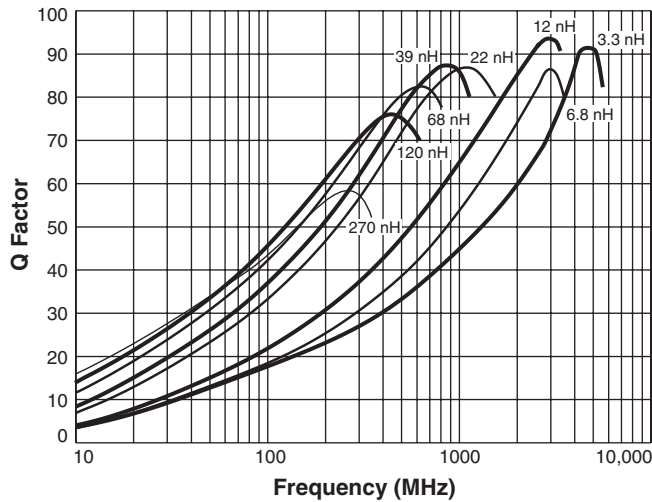
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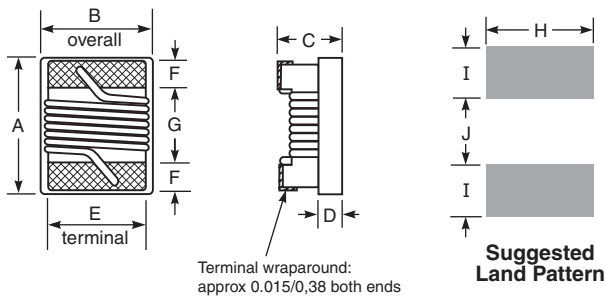
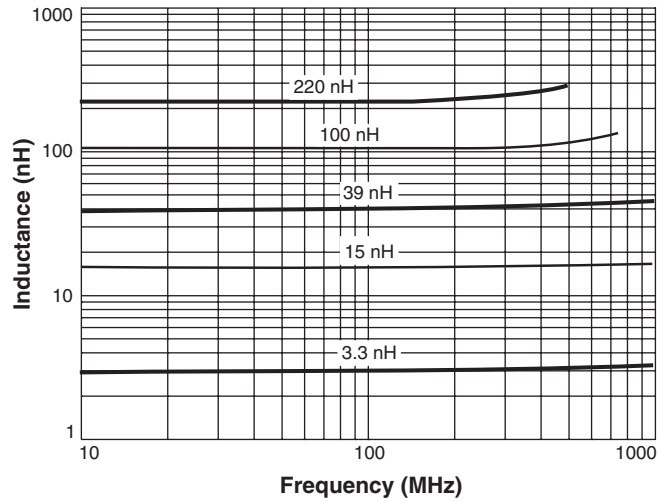
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ML336RAA Series (0805)

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

Core material Ceramic

Terminations Silver-palladium-platinum-glass frit

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

Maximum part temperature +155°C (ambient + temp rise)

Storage temperature Component: -65°C to +155°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, 0.23 mm thick, 4 mm pocket spacing, 1.65 mm pocket depth



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