

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	57 @ 500 MHz	3460	0.10	600	Blue
ML336RAA120_LZ	12 @ 250 MHz	5,2	46 @ 500 MHz	3180	0.15	600	Orange
ML336RAA150_LZ	15 @ 250 MHz	5,2	41 @ 500 MHz	2560	0.17	600	Yellow
ML336RAA180_LZ	18 @ 250 MHz	5,2	48 @ 500 MHz	2480	0.20	600	Green
ML336RAA220_LZ	22 @ 250 MHz	5,2	59 @ 500 MHz	2080	0.22	500	Blue
ML336RAA240_LZ	24 @ 250 MHz	5,2	59 @ 500 MHz	1920	0.22	500	Gray
ML336RAA270_LZ	27 @ 250 MHz	5,2	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	500	Black
ML336RAA560_LZ	56 @ 200 MHz	5,2,1	49 @ 250 MHz	1280	0.34	500	Brown
ML336RAA680_LZ	68 @ 200 MHz	5,2,1	52 @ 250 MHz	1200	0.38	500	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	400	Black
ML336RAA101_LZ	100 @ 150 MHz	5,2,1	54 @ 250 MHz	1000	0.46	400	Yellow
ML336RAA111_LZ	110 @ 150 MHz	5,2	38 @ 250 MHz	880	0.48	400	Brown
ML336RAA121_LZ	120 @ 150 MHz	5,2,1	52 @ 250 MHz	880	0.51	400	Green
ML336RAA151_LZ	150 @ 100 MHz	5,2,1	33 @ 100 MHz	730	0.56	400	Blue
ML336RAA181_LZ	180 @ 100 MHz	5,2,1	37 @ 100 MHz	730	0.64	400	Violet
ML336RAA221_LZ	220 @ 100 MHz	5,2	36 @ 100 MHz	650	0.70	400	Gray
ML336RAA241_LZ	240 @ 100 MHz	5,2	36 @ 100 MHz	610	1.00	350	Red
ML336RAA271_LZ	270 @ 100 MHz	5,2	36 @ 100 MHz	580	1.00	350	White
ML336RAA331_LZ	330 @ 100 MHz	5,2	36 @ 100 MHz	520	1.40	310	Black
ML336RAA391_LZ	390 @ 100 MHz	5,2	34 @ 100 MHz	480	1.50	290	Brown
ML336RAA471_LZ	470 @ 50 MHz	5,2,1	24 @ 50 MHz	300	1.76	320	Violet
ML336RAA561_LZ	560 @ 25 MHz	5,2	21 @ 50 MHz	260	1.90	310	Orange
ML336RAA681_LZ	680 @ 25 MHz	5,2	21 @ 50 MHz	220	2.20	220	Green
ML336RAA821_LZ	820 @ 25 MHz	5,2	23 @ 50 MHz	240	2.35	200	Blue

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

ML336RAA821 **GLZ**

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

Testing: Z = COTS

H = Screening per Coilcraft CP-SA-10001

N = Screening per Coilcraft CP-SA-10003

C = Custom screening (please specify when ordering)

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

3. Q measured at the same frequency as inductance using an Agilent/HP 4291A with an Agilent/HP 16197 test fixture or equivalents.

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

5. DCR measured on a Keithley 580 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

Specifications subject to change without notice.

Please check our website for latest information.

Document ML100-1 Revised 06/15/10

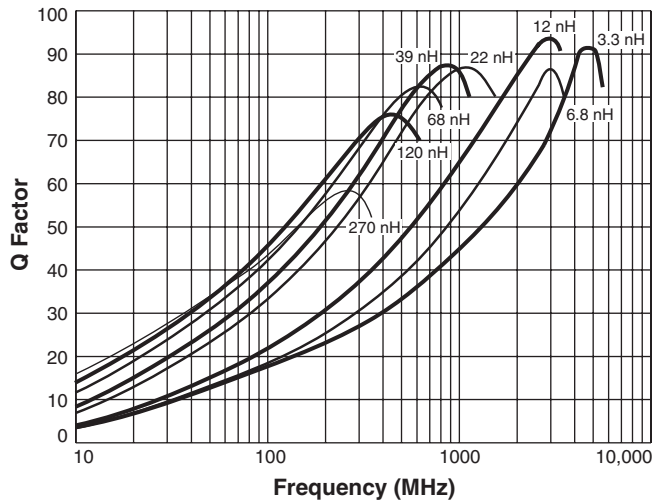
1102 Silver Lake Road
Cary IL 60013

Phone 800-981-0363
Fax 847-639-1508

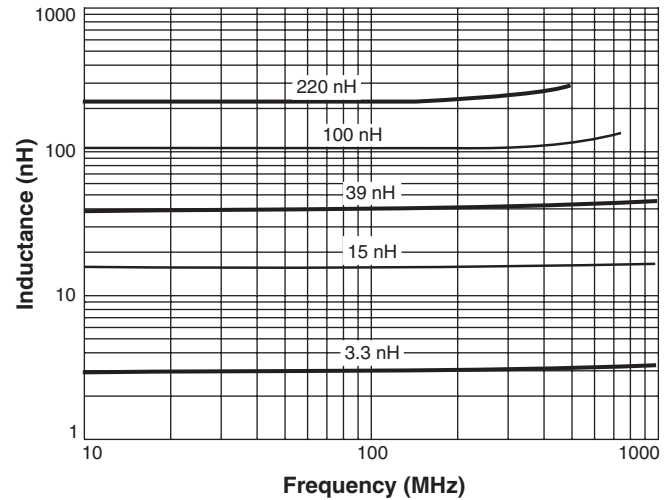
E-mail cps@coilcraft.com
Web www.coilcraft-cps.com

ML336RAA Series (0805)

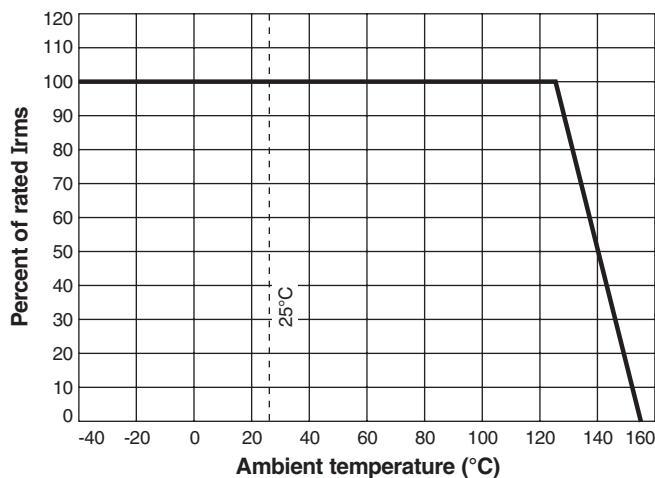
Typical Q vs Frequency



Typical L vs Frequency



Current Derating



Core material Ceramic

Terminations Silver-palladium-platinum-glass frit

Ambient temperature -55°C to +125°C with I_{max} current, +125°C to +155°C with derated current

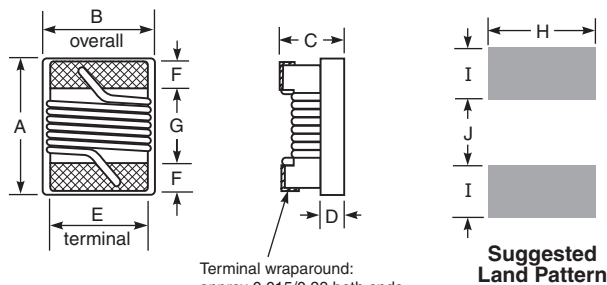
Storage temperature Component: -55°C to +155°C.
Packaging: -55°C to +80°C

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)

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



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

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