

High-Reliability Chip Inductors ML336RAD

The ML336RAD inductors provide exceptional Q values, even at high frequencies. They have a ceramic body and wire wound construction to provide the highest SRFs, tight inductance tolerance and batch consistency.

This robust version of Coilcraft's standard 0805HQ 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 (GHz)	DCR max ⁵ (Ohms)	I _{max} (A)
ML336RAD2N5JLZ	2.5 @ 250 MHz	5	56 @ 1000 MHz	>5.00	0.020	2.0
ML336RAD5N6JLZ	5.6 @ 250 MHz	5	83 @ 1000 MHz	4.88	0.035	1.9
ML336RAD6N2JLZ	6.2 @ 250 MHz	5	80 @ 1000 MHz	4.55	0.035	1.8
ML336RAD12NJLZ	12 @ 250 MHz	5	52 @ 500 MHz	2.80	0.045	1.6
ML336RAD16N_LZ	16 @ 250 MHz	5,2	72 @ 500 MHz	2.40	0.060	1.4
ML336RAD18N_LZ	18 @ 250 MHz	5,2	70 @ 500 MHz	2.20	0.060	1.4
ML336RAD20N_LZ	20 @ 250 MHz	5,2	54 @ 250 MHz	2.05	0.060	1.4
ML336RAD27N_LZ	27 @ 250 MHz	5,2,1	58 @ 250 MHz	2.00	0.070	1.3
ML336RAD30N_LZ	30 @ 250 MHz	5,2,1	50 @ 250 MHz	1.74	0.095	1.1
ML336RAD39N_LZ	39 @ 250 MHz	5,2,1	53 @ 250 MHz	1.60	0.110	1.0
ML336RAD48N_LZ	48 @ 200 MHz	5,2,1	44 @ 150 MHz	1.40	0.095	1.1
ML336RAD51N_LZ	51 @ 200 MHz	5,2,1	36 @ 150 MHz	1.28	0.120	0.9

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

ML336RAD51NGLZ

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

- Inductance measured using a Coilcraft SMD-A fixture in an Agilent/HP 4286 impedance analyzer or equivalent with Coilcraft-provided correlation pieces.
 - Q measured at the same frequency as inductance using an Agilent/HP 4291A with an Agilent/HP 16197 test fixture or equivalents.
 - SRF measured using an Agilent/HP 8753ES network analyzer or equivalent and a Coilcraft SMD-D test fixture.
 - DCR measured on a Keithley 580 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.

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: -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

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MEASUREMENTS
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CRITICAL PRODUCTS & SERVICES

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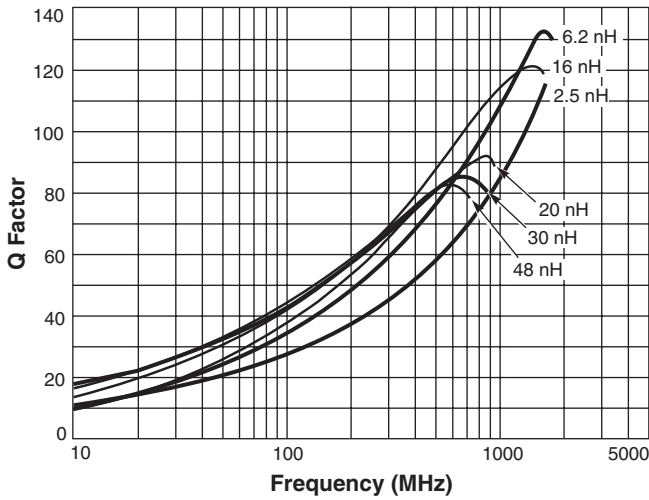
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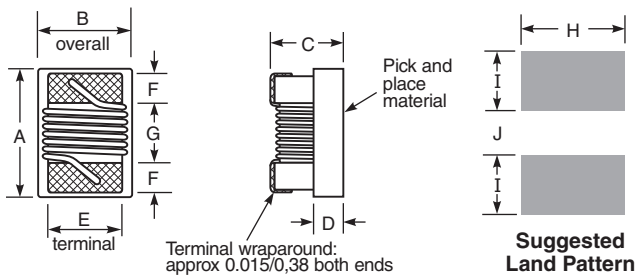
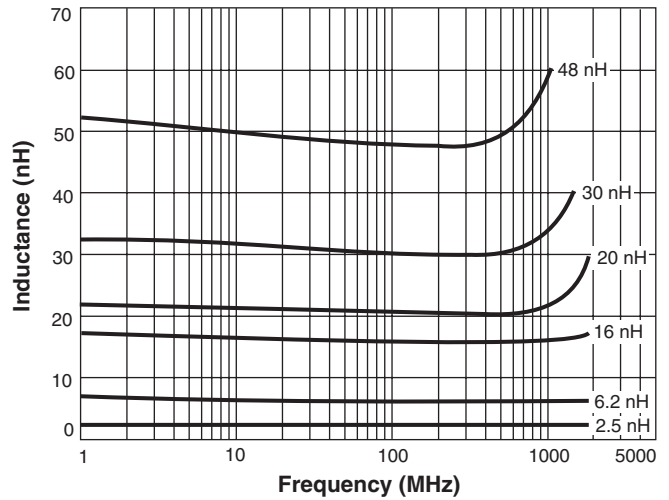
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ML336RAD Series (0805)

Typical Q vs Frequency



Typical L vs Frequency



A	B	C	D	E	F	G	H	I	J
max	max	max	ref						
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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