



Chip Inductors – 0402ME Series (1005)

The 0402ME chip inductors offer outstanding SRF and excellent Q values at higher frequencies. They feature very low DC resistance and higher current ratings than other 0402-size inductors.

Designed to be comparable with other industry standards, they are available in 28 inductance values from 1.5 nH to 82 nH, most at 2% tolerance.

These inductors are ideal for use in high-frequency telecommunications equipment and in resonance circuits such as voltage-controlled oscillators (VCO). Their excellent current handling makes them perfect for power-amplifier applications.

Contact Coilcraft to request free evaluation samples.

Part number ¹	Inductance ² (nH)	Percent tolerance ³	Q ⁴ nom	Q typ at 300 MHz	Q typ at 800 MHz	Q typ at 1.5 GHz	SRF min ⁵ (GHz)	DCR max ⁶ (Ohms)	I _{rms} ⁷ (mA)	Overall width
0402ME-1N5XJL_	1.5	5	10	30	55	65	18.0	0.03	1500	B1
0402ME-2N4XJL_	2.4	5	20	40	65	80	15.0	0.05	1200	B1
0402ME-2N7XJL_	2.7	5	20	40	67	85	15.0	0.05	1200	B1
0402ME-3N9XJL_	3.9	5	25	35	58	82	10.0	0.07	1000	B1
0402ME-4N3XJL_	4.3	5	25	35	58	90	10.0	0.07	1000	B1
0402ME-4N7XJL_	4.7	5	25	40	65	85	8.0	0.07	1000	B1
0402ME-5N1XJL_	5.1	5	25	35	60	78	8.0	0.12	800	B1
0402ME-6N2XGL_	6.2	2	25	40	63	80	8.0	0.09	950	B1
0402ME-6N8XGL_	6.8	2	25	45	70	90	6.0	0.09	950	B1
0402ME-7N5XGL_	7.5	2	25	38	58	75	6.0	0.13	850	B1
0402ME-8N2XGL_	8.2	2	25	40	62	80	5.5	0.14	800	B1
0402ME-9N1XGL_	9.1	2	25	40	62	85	5.5	0.14	800	B1
0402ME-10NXGL_	10	2	25	38	60	75	5.5	0.17	750	B1
0402ME-12NXGL_	12	2	30	40	60	80	5.5	0.14	750	B1
0402ME-13NXGL_	13	2	30	35	55	70	5.0	0.21	430	B1
0402ME-15NXGL_	15	2	30	40	60	80	5.0	0.16	700	B1
0402ME-16NXGL_	16	2	20	40	60	80	4.5	0.24	370	B1
0402ME-18NXGL_	18	2	25	40	63	80	4.5	0.27	500	B1
0402ME-20NXGL_	20	2	25	37	57	78	4.0	0.27	500	B1
0402ME-22NXGL_	22	2	25	35	55	73	4.0	0.30	500	B1
0402ME-24NXGL_	24	2	25	35	50	48	3.5	0.52	400	B1
0402ME-27NXGL_	27	2	25	35	55	60	3.5	0.52	400	B2
0402ME-30NXGL_	30	2	25	35	55	65	3.3	0.58	390	B2
0402ME-33NXGL_	33	2	25	35	55	60	3.2	0.63	380	B2
0402ME-36NXGL_	36	2	25	35	55	60	3.1	0.63	380	B2
0402ME-39NXGL_	39	2	25	35	55	62	3.0	0.70	350	B2
0402ME-47NXGL_	47	2	25	34	52	60	2.9	1.08	270	B2
0402ME-56NXGL_	56	2	25	36	53	50	2.8	1.17	210	B2
0402ME-82NXGL_	82	2	20	35	49	—	2.3	2.24	130	B2

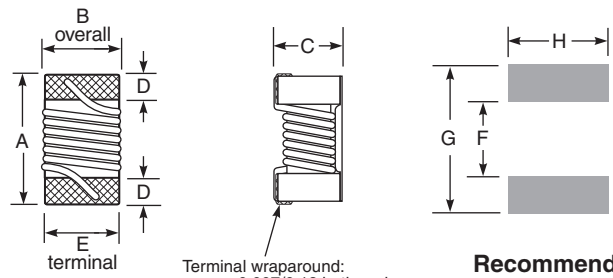
1. When ordering, please specify **packaging** code:

0402ME-56NXJLW

Packaging: W = 7" machine-ready reel. 2000 parts per full reel, EIA-481 punched paper tape: 8 mm wide, 1.68 mm thick, 2 mm pocket spacing.

U = Less than full reel. In tape, but not machine ready. To have a leader and trailer added (\$25 charge), use code letter W instead.

- Inductance measured at 100 MHz, 0.1 Vrms, 0 Adc using Coilcraft SMD-F fixture in Agilent/HP 4284A impedance analyzer with Coilcraft provided correlation pieces.
- Tolerances in bold are stocked for immediate shipment.
- Q measured using Agilent/HP4291A with Agilent/HP 16193 test fixture.
- SRF measured using Agilent/HP 8753D network analyzer and Coilcraft SMD-D test fixture.
- DCR measured on Cambridge Technology micro-ohmmeter and Coilcraft CCF858 test fixture.
- Current that causes a 20°C rise from 25°C ambient.
- Operating temperature range -40°C to +125°C.
- Electrical specifications at 25°C.



A	B	C	D	E	F	G	H
0.039 ±0.004	See note	0.020 ±0.004	0.008 ±0.004	0.020 ±0.004	0.020	0.047	0.026
1,0 ±0,1		0,51 ±0,1	0,2 ±0,1	0,5 ±0,1	0,5	1,2	0,65

Note:

B1 = 0.024 ±0.004 in / 0,61 ±0,1 mm
B2 = 0.0196 ±0.004 in / 0,50 ±0,1 mm

Terminations: Silver-palladium-platinum-glass frit



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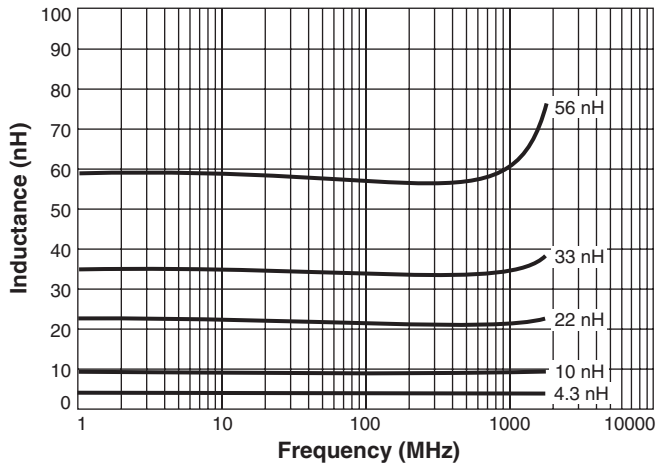
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This product may not be used in medical or high risk applications without prior Coilcraft approval. Specification subject to change without notice. Please check out web site for latest information.

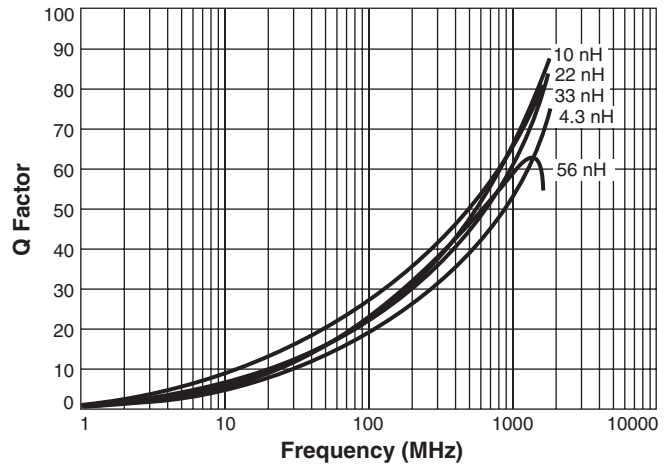


0402ME Series (1005)

Typical L vs Frequency



Typical Q vs Frequency



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