



# 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 <sup>1</sup>	Inductance <sup>2</sup> (nH)	Percent tolerance <sup>3</sup>	Q <sup>4</sup> nom	Q typ at 300 MHz	Q typ at 800 MHz	Q typ at 1.5 GHz	SRF min <sup>5</sup> (GHz)	DCR max <sup>6</sup> (Ohms)	I <sub>rms</sub> <sup>7</sup> (mA)	Overall width
0402ME-1N5XJL_	1.5	<b>5</b>	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	<b>5</b>	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	<b>5</b>	25	35	58	90	10.0	0.07	1000	B1
0402ME-4N7XJL_	4.7	<b>5</b>	25	40	65	85	8.0	0.07	1000	B1
0402ME-5N1XJL_	5.1	<b>5</b>	25	35	60	78	8.0	0.12	800	B1
0402ME-6N2XGL_	6.2	<b>2</b>	25	40	63	80	8.0	0.09	950	B1
0402ME-6N8XGL_	6.8	<b>2</b>	25	45	70	90	6.0	0.09	950	B1
0402ME-7N5XGL_	7.5	<b>2</b>	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	<b>2</b>	25	40	62	85	5.5	0.14	800	B1
0402ME-10NXGL_	10	<b>2</b>	25	38	60	75	5.5	0.17	750	B1
0402ME-12NXGL_	12	<b>2</b>	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	<b>2</b>	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	<b>2</b>	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	<b>2</b>	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	<b>2</b>	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	<b>2</b>	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	<b>2</b>	25	35	55	62	3.0	0.70	350	B2
0402ME-47NXGL_	47	<b>2</b>	25	34	52	60	2.9	1.08	270	B2
0402ME-56NXGL_	56	<b>2</b>	25	36	53	50	2.8	1.17	210	B2
0402ME-82NXGL_	82	2	20	35	49	—	2.3	2.24	130	B2

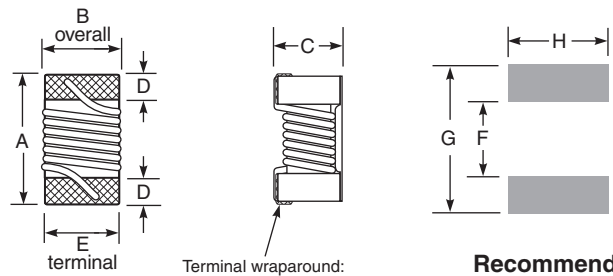
1. When ordering, please specify **packaging** code:

#### 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.



Terminal wraparound:  
approx 0.007/0.18 both ends

#### Recommended Land Pattern

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



www.coilcraft.com

**US** +1-847-639-6400 sales@coilcraft.com  
**UK** +44-1236-730595 sales@coilcraft-europe.com  
**Taiwan** +886-2-2264 3646 sales@coilcraft.com.tw  
**China** +86-21-6218 8074 sales@coilcraft.com.cn  
**Singapore** + 65-6484 8412 sales@coilcraft.com.sg

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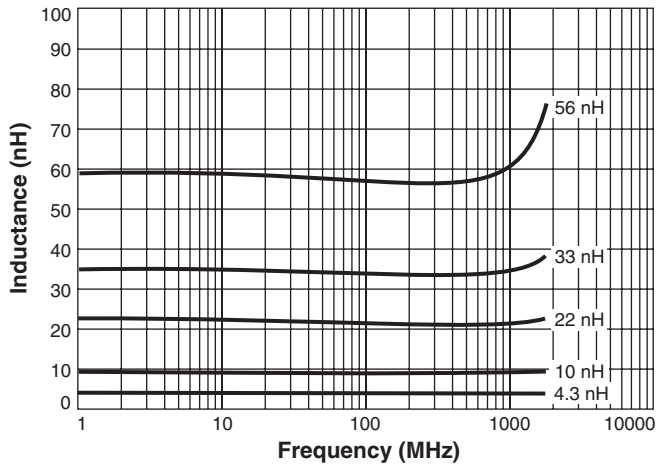
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This product may not be used in medical of high risk applications without prior Coilcraft approval. Specification subject to change without notice. Please check out web site for latest information.

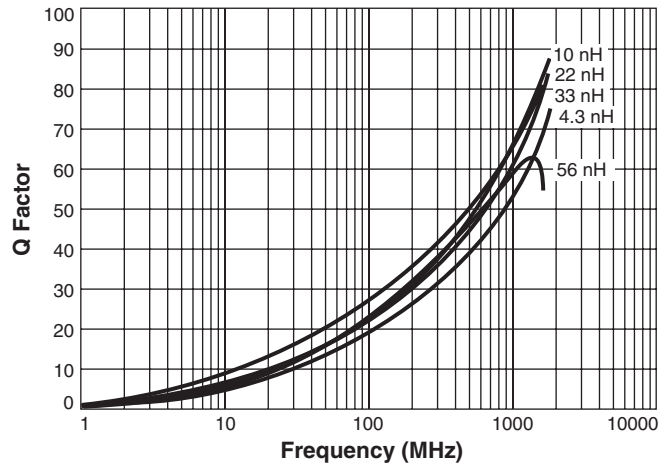


# 0402ME Series (1005)

## Typical L vs Frequency



## Typical Q vs Frequency



**US** +1-847-639-6400 sales@coilcraft.com  
**UK** +44-1236-730595 sales@coilcraft-europe.com  
**Taiwan** +886-2-2264 3646 sales@coilcraft.com.tw  
**China** +86-21-6218 8074 sales@coilcraft.com.cn  
**Singapore** + 65-6484 8412 sales@coilcraft.com.sg

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