

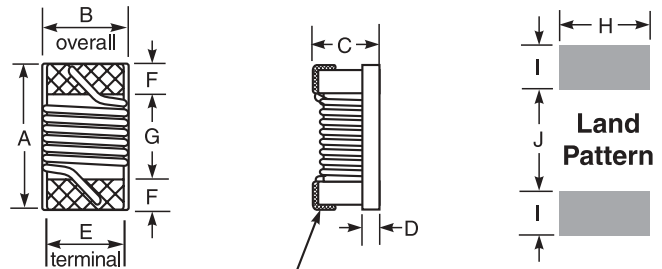
**NEW!**  
21 new L values

# Chip Inductors - 0402CS Series (1005)

Continuing in our long tradition of innovation and leadership, Coilcraft introduced the industry's first 0402 wirewound inductor.

This series shares all of the characteristics of Coilcraft's other ceramic inductors: exceptionally high Q factors, especially at use frequencies; outstanding self-resonant frequency; tight inductance tolerance; and excellent batch-to-batch consistency.

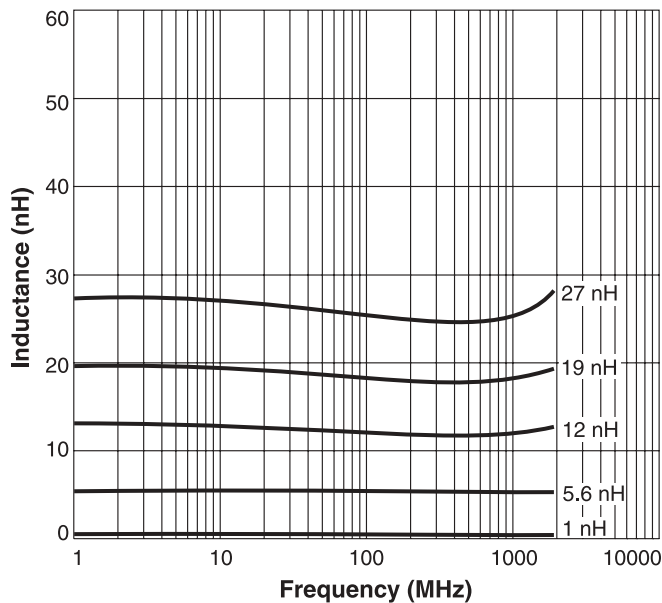
Coilcraft **Designer's Kits C128A** and **C128B** contain samples of 5% inductance tolerance parts. Kits with 2% tolerance are also available. To order, contact Coilcraft or visit <http://order.coilcraft.com>.



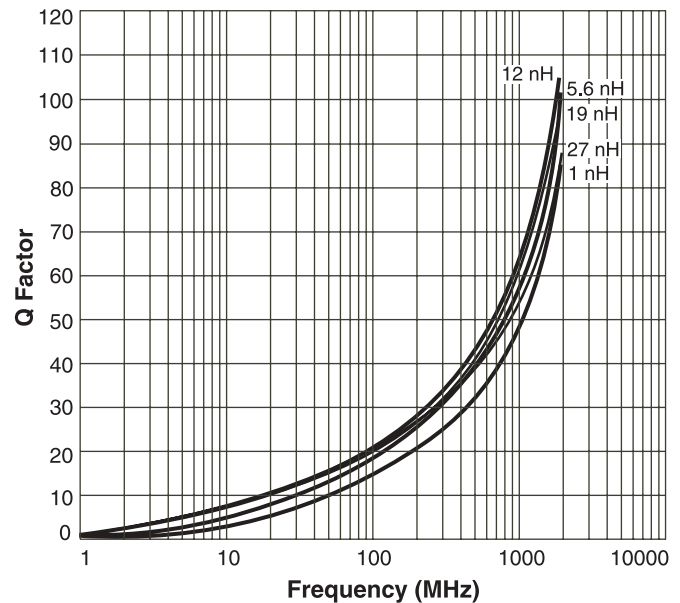
A max	B max	C max	D ref	E	F	G	H	I	J
0.047	0.025	0.026	0.010	0.020	0.009	0.022	0.026	0.014	0.018
1,19	0,64	0,66	0,25	0,51	0,23	0,56	0,66	0,36	0,46

Parts/reel: 7" 2000 Tape width: 8 mm  
For packaging data see Tape and Reel Specifications section.

## TYPICAL L vs FREQUENCY



## TYPICAL Q vs FREQUENCY



**COILCRAFT** ACCURATE  
**PRECISION** REPEATABLE  
MEASUREMENTS  
SEE INDEX **TEST FIXTURES**

*Coilcraft*

Specifications subject to change without notice. Document 198-1 Revised 8/8/02

1102 Silver Lake Road Cary, Illinois 60013 Phone 847/639-6400 Fax 847/639-1469  
E-mail [info@coilcraft.com](mailto:info@coilcraft.com) Web <http://www.coilcraft.com>

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# 0402CS Series (1005)

Part number <sup>1</sup>	Inductance <sup>2</sup> (nH)	Percent tolerance <sup>3</sup>	Q min <sup>4</sup>	SRF min <sup>5</sup> (MHz)	DCR max <sup>6</sup> (Ohms)	I <sub>dc</sub> max <sup>7</sup> (mA)	900 MHz		1.7 GHz	
							L typ	Q typ	L typ	Q typ
0402CS-1N0X_B_	1.0	10,5	16	>6000	0.045	1360	1.02	77	1.02	69
<b>NEW!</b> 0402CS-1N9X_B_	1.9	10,5	16	>6000	0.070	1040	1.72	68	1.74	82
0402CS-2N0X_B_	2.0	10,5	16	>6000	0.070	1040	1.93	54	1.93	75
0402CS-2N2X_B_	2.2	10,5	19	>6000	0.070	960	2.19	59	2.23	100
<b>NEW!</b> 0402CS-2N4X_B_	2.4	10,5	15	>6000	0.068	790	2.24	51	2.27	68
<b>NEW!</b> 0402CS-2N7X_B_	2.7	10,5	16	>6000	0.120	640	2.23	42	2.25	61
0402CS-3N3X_B_	3.3	10,5,2	19	>6000	0.066	840	3.10	65	3.12	87
0402CS-3N6X_B_	3.6	10,5,2	19	>6000	0.066	840	3.56	45	3.62	71
0402CS-3N9X_B_	3.9	10,5,2	19	5800	0.066	840	3.89	50	4.00	75
<b>NEW!</b> 0402CS-4N3X_B_	4.3	10,5,2	18	>6000	0.091	700	4.19	47	4.30	71
<b>NEW!</b> 0402CS-4N7X_B_	4.7	10,5,2	15	4775	0.130	640	4.55	48	4.68	68
0402CS-5N1X_B_	5.1	10,5,2	20	4800	0.083	800	5.15	56	5.25	82
0402CS-5N6X_B_	5.6	10,5,2	20	4800	0.083	760	5.16	54	5.28	81
0402CS-6N2X_B_	6.2	10,5,2	20	4800	0.083	760	6.16	52	6.37	76
<b>NEW!</b> 0402CS-6N8X_B_	6.8	10,5,2	20	4800	0.083	680	6.56	63	6.93	78
0402CS-7N5X_B_	7.5	10,5,2	22	4800	0.10	680	7.91	60	8.22	88
0402CS-8N2X_B_	8.2	10,5,2	22	4400	0.10	680	8.50	57	8.85	84
<b>NEW!</b> 0402CS-8N7X_B_	8.7	10,5,2	18	4100	0.20	480	8.78	54	9.21	73
0402CS-9N0X_B_	9.0	10,5,2	22	4160	0.10	680	9.07	62	9.53	78
<b>NEW!</b> 0402CS-9N5X_B_	9.5	10,5,2	18	4000	0.20	480	9.42	54	9.98	69
0402CS-10NX_B_	10.0	10,5,2	21	3900	0.20	480	9.8	50	10.10	67
0402CS-11NX_B_	11.0	10,5,2	24	3680	0.12	640	10.7	52	11.20	78
0402CS-12NX_B_	12.0	10,5,2	24	3600	0.12	640	11.9	53	12.70	71
<b>NEW!</b> 0402CS-13NX_B_	13.0	10,5,2	24	3450	0.21	440	13.4	51	14.63	57
0402CS-15NX_B_	15.0	10,5,2	24	3280	0.17	560	14.6	55	15.50	77
<b>NEW!</b> 0402CS-16NX_B_	16.0	10,5,2	24	3100	0.22	560	16.6	46	18.86	47
<b>NEW!</b> 0402CS-18NX_B_	18.0	10,5,2	25	3100	0.23	420	18.3	57	20.28	62
0402CS-19NX_B_	19.0	10,5,2	24	3040	0.20	480	19.1	50	21.10	67
<b>NEW!</b> 0402CS-20NX_B_	20.0	10,5,2	25	3000	0.25	420	20.7	52	23.66	53
<b>NEW!</b> 0402CS-22NX_B_	22.0	10,5,2	25	2800	0.30	400	23.2	53	26.75	53
0402CS-23NX_B_	23.0	10,5,2	22	2720	0.30	400	23.8	49	26.90	64
<b>NEW!</b> 0402CS-24NX_B_	24.0	10,5,2	25	2700	0.30	400	25.1	51	29.50	50
0402CS-27NX_B_	27.0	10,5,2	24	2480	0.30	400	28.7	49	33.50	63
<b>NEW!</b> 0402CS-30NX_B_	30.0	10,5,2	25	2350	0.30	400	31.1	46	38.50	39
<b>NEW!</b> 0402CS-33NX_B_	33.0	10,5,2	24	2350	0.30	400	34.9	31	41.74	32
0402CS-36NX_B_	36.0	10,5,2	24	2320	0.44	320	39.5	44	48.40	53
<b>NEW!</b> 0402CS-39NX_B_	39.0	10,5,2	25	2100	0.55	200	41.7	47	50.23	45
0402CS-40NX_B_	40.0	10,5,2	24	2240	0.44	320	39.0	44	47.40	33
<b>NEW!</b> 0402CS-43NX_B_	43.0	10,5,2	25	2030	0.81	100	45.8	46	61.55	34
0402CS-47NX_B_	47.0	10,5,2	20	2100	0.83	150	50.0	38	—	—
<b>NEW!</b> 0402CS-51NX_B_	51.0	10,5,2	25	1750	0.82	100	56.6	40	—	—
<b>NEW!</b> 0402CS-56NX_B_	56.0	10,5,2	22	1760	0.97	100	62.8	42	—	—
<b>NEW!</b> 0402CS-68NX_B_	68.0	10,5,2	22	1620	1.12	100	78.19	36	—	—

1. When ordering, please specify tolerance and packaging codes:

**Inductance tolerance code:**

Table above shows stock tolerances in bold.

G= ±2%, J= ±5%, K= ±10%

0402CS-68NX\_B\_

**Packaging code:**

W= 7" machine-ready reel EIA RS-481 punched paper tape. 2000 per full reel.

U= Less than full reel Not machine ready. May be on multiple reels. To have a leader and a trailer added (\$25 charge), use code letter W instead.

2. Inductance measured at 250 MHz using Agilent/HP16193 test fixture in Agilent/HP4286 impedance analyzer with Coilcraft-provided correlation pieces. For recommended test procedures, contact Coilcraft.

3. Tolerances in bold are stocked for immediate shipment.

4. Q measured using Agilent/HP4291A with Agilent/HP16193 test fixture.

5. SRF measured using Agilent/HP8753D network analyzer and Coilcraft SMD-D test fixture.

6. DCR measured on micro-ohmmeter.

7. For 15°C rise.

8. Operating temperature range -40°C to +125°C.

9. Electrical specifications at 25°C.

10. For environmental data see Product Specifications section.

11. For part marking data see Color Coding section.

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1102 Silver Lake Road Cary, Illinois 60013 Phone 847/639-6400 Fax 847/639-1469  
E-mail info@coilcraft.com Web http://www.coilcraft.com