

**NEW!**

# Chip Inductors - 0302CS Series (0805)

Coilcraft introduces the world's smallest wirewound inductors with a 20% smaller footprint than our 0402 series. These ceramic chip inductors have exceptionally high Q factors, especially at use frequencies, outstanding self-resonant frequencies, and 5% inductance tolerance for

most values. Despite their small size, they offer excellent current handling capability – up to 1.6 A.

Coilcraft **Designer's Kit C170** contains samples of all the standard parts shown. To order, contact Coilcraft or visit <http://order.coilcraft.com>.

Part number <sup>1</sup>	Inductance <sup>2</sup> (nH)	Percent tolerance	900 MHz		1.7 GHz		2.4 GHz		SRF typ <sup>4</sup> (GHz)	DCR max <sup>5</sup> (Ohms)	Irms <sup>6</sup> (mA)
			L typ	Q typ <sup>3</sup>	L typ	Q typ <sup>3</sup>	L typ	Q typ <sup>3</sup>			
0302CS-N67XMB	0.67	<b>20</b>	0.66	42	0.66	56	0.67	70	>26	0.021	1600
0302CS-1N5XKB	1.5	<b>10</b>	1.5	57	1.5	80	1.5	96	22.42	0.038	1140
0302CS-1N7XKB	1.7	<b>10</b>	1.7	57	1.7	78	1.7	95	16.14	0.038	1140
0302CS-2N1XKB	2.1	<b>10</b>	2.1	38	2.1	57	2.1	72	15.94	0.082	830
0302CS-3N0XJB	3.0	<b>5</b>	3.0	56	3.0	92	3.0	131	15.10	0.060	950
0302CS-3N3XJB	3.3	<b>5</b>	3.3	56	3.3	88	3.3	129	11.50	0.060	950
0302CS-3N5XJB	3.5	<b>5</b>	3.5	60	3.5	84	3.5	110	11.53	0.070	870
0302CS-3N8XJB	3.8	<b>5</b>	3.8	60	3.8	89	3.8	105	10.67	0.080	830
0302CS-4N0XJB	4.0	<b>5</b>	4.0	52	4.0	80	4.1	98	11.21	0.100	760
0302CS-4N7XJB	4.7	<b>5</b>	4.6	55	4.6	88	4.7	120	12.07	0.074	830
0302CS-5N1XJB	5.1	<b>5</b>	5.1	62	5.1	92	5.2	118	9.65	0.074	830
0302CS-6N0XJB	6.0	<b>5</b>	6.0	58	6.0	82	6.2	105	8.60	0.105	700
0302CS-6N3XJB	6.3	<b>5</b>	6.3	56	6.3	80	6.5	100	9.34	0.135	620
0302CS-6N5XJB	6.5	<b>5</b>	6.5	56	6.5	80	6.8	100	8.19	0.135	620
0302CS-7N0XJB	7.0	<b>5</b>	7.0	62	7.1	84	7.2	112	8.50	0.103	760
0302CS-7N2XJB	7.2	<b>5</b>	7.2	60	7.2	82	7.4	110	9.12	0.112	690
0302CS-7N4XJB	7.4	<b>5</b>	7.3	60	7.4	82	7.6	110	7.98	0.112	690
0302CS-8N3XJB	8.3	<b>5</b>	8.2	58	8.3	80	8.5	104	8.19	0.150	590
0302CS-9N0XJB	9.0	<b>5</b>	8.9	58	9.0	83	9.2	120	7.92	0.115	690
0302CS-10NXJB	10.0	<b>5</b>	10.0	58	10.1	91	10.2	119	7.45	0.140	620
0302CS-11NXJB	11.0	<b>5</b>	11.0	57	11.2	83	11.6	105	6.85	0.154	590
0302CS-12NXJB	12.0	<b>5</b>	12.0	59	12.6	88	12.7	110	6.86	0.170	560
0302CS-13NXJB	13.0	<b>5</b>	13.0	53	13.3	83	13.8	104	6.94	0.230	480
0302CS-14NXJB	14.0	<b>5</b>	13.9	55	14.3	85	14.9	94	6.28	0.138	620
0302CS-15NXJB	15.0	<b>5</b>	15.0	55	15.4	84	15.9	106	6.20	0.174	560
0302CS-16NXJB	16.0	<b>5</b>	16.0	54	16.4	85	17.0	102	6.13	0.210	480
0302CS-17NXJB	17.0	<b>5</b>	16.9	52	17.4	82	18.2	118	6.26	0.280	440
0302CS-18NXJB	18.0	<b>5</b>	17.9	55	18.5	80	19.3	111	6.03	0.350	390
0302CS-19NXJB	19.0	<b>5</b>	18.9	53	19.6	85	20.5	104	5.79	0.260	480
0302CS-20NXJB	20.0	<b>5</b>	19.9	56	20.2	88	20.8	112	5.68	0.300	430
0302CS-21NXJB	21.0	<b>5</b>	20.9	53	22.0	82	24.1	95	5.16	0.370	370
0302CS-22NXJB	22.0	<b>5</b>	22.0	52	23.1	79	25.2	94	4.95	0.420	340
0302CS-23NXJB	23.0	<b>5</b>	23.0	54	24.2	84	26.7	92	5.18	0.310	430
0302CS-29NXJB	29.0	<b>5</b>	29.0	51	30.5	75	33.0	90	4.83	0.470	330
0302CS-34NXJB	34.0	<b>5</b>	34.0	55	35.5	78	38.1	94	4.45	0.530	310

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

**0302CS-34NXJB W**

**Packaging: W** = 7" machine-ready reel. EIA-481 punched paper tape (2000 parts per full reel).

**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.

2. Inductance measured at 250 MHz using a Coilcraft SMD-F fixture in an Agilent/HP 4286 impedance analyzer.

3. Q measured using an Agilent/HP 4287A with an Agilent/HP 16193 test fixture.

4. SRF measured using an Agilent/HP 8722ES network analyzer and a test fixture with a 0.017" air gap.

5. DCR measured on a micro-ohmmeter and a Coilcraft CCF858 test fixture.

6. Average current for a 30°C rise from 25°C ambient.

7. Storage and operating temperature range -40°C to +125°C.

8. Electrical specifications at 25°C.

See Qualification Standards section for environmental and test data.

# Coilcraft®

Specifications subject to change without notice.

Please check our website for latest information. Document 302-1 Revised 02/25/04

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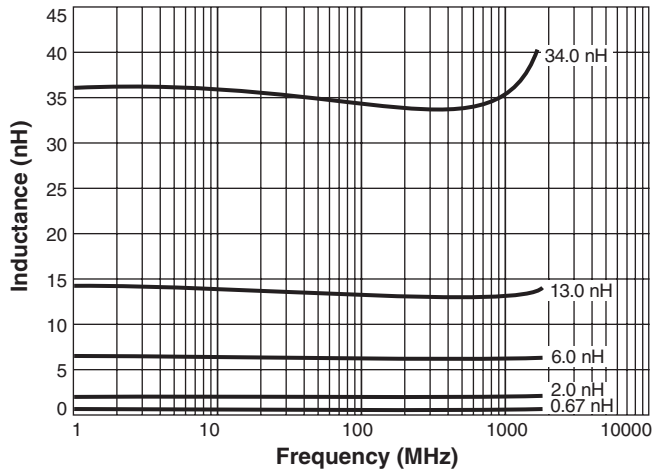


**NEW!**

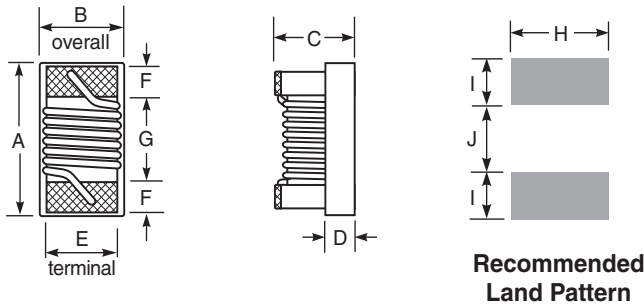
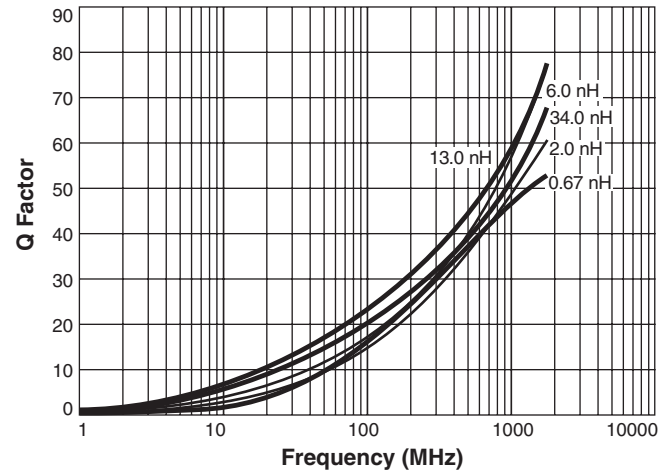
# 0302CS Series (0805)

**S-Parameter files**  
ON OUR WEB SITE OR CD  
**SPICE models**  
ON OUR WEB SITE OR CD

## Typical L vs Frequency



## Typical Q vs Frequency



A max	B max	C max	D ref	E	F	G	H	I	J
0.037	0.023	0.018	0.008	0.015	0.006	0.018	0.021	0.010	0.014
0,94	0,58	0,45	0,20	0,38	0,15	0,46	0,53	0,25	0,36

**Terminations:** Platinum/palladium/silver  
**Tape and reel:** 2000/7" reel 8 mm tape width  
 For packaging data see Tape and Reel Specifications section.



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 Please check our website for latest information. Document 302-2 Revised 12/15/04

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