



# Chip Inductors – 0805CS Series (2012)

These ultra-compact inductors provide exceptional Q values, even at high frequencies. They have a ceramic body and wire wound construction to provide the highest SRFs available in 0805 size.

Coilcraft **Designer's Kit C103** contains samples of all 5% inductance tolerance parts. Kits with 2% tolerance are also available. To order, contact Coilcraft or purchase on-line at <http://order.coilcraft.com>.

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)	Irms max <sup>7</sup> (mA)	Color code
0805CS-020X _B_	2.8 @ 250 MHz	20,10, <b>5</b>	80 @ 1500 MHz	7900	0.06	800	Gray
0805CS-3N0X _B_	3.0 @ 250 MHz	20,10, <b>5</b>	65 @ 1500 MHz	7900	0.06	800	White
0805CS-030X _B_	3.3 @ 250 MHz	20,10, <b>5</b>	50 @ 1500 MHz	7900	0.08	600	Black
0805CS-050X _B_	5.6 @ 250 MHz	20,10, <b>5</b>	65 @ 1000 MHz	5500	0.08	600	Orange
0805CS-060X _B_	6.8 @ 250 MHz	20,10, <b>5</b>	50 @ 1000 MHz	5500	0.11	600	Brown
0805CS-070X _B_	7.5 @ 250 MHz	20,10, <b>5</b>	50 @ 1000 MHz	4500	0.14	600	Green
0805CS-080X _B_	8.2 @ 250 MHz	20,10, <b>5,2</b>	50 @ 1000 MHz	4700	0.12	600	Red
0805CS-100X _B_	10 @ 250 MHz	20,10, <b>5,2</b>	60 @ 500 MHz	4200	0.10	600	Blue
0805CS-120X _B_	12 @ 250 MHz	20,10, <b>5,2</b>	50 @ 500 MHz	4000	0.15	600	Orange
0805CS-150X _B_	15 @ 250 MHz	20,10, <b>5,2</b>	50 @ 500 MHz	3400	0.17	600	Yellow
0805CS-180X _B_	18 @ 250 MHz	20,10, <b>5,2</b>	50 @ 500 MHz	3300	0.20	600	Green
0805CS-220X _B_	22 @ 250 MHz	20,10, <b>5,2</b>	55 @ 500 MHz	2600	0.22	500	Blue
0805CS-240X _B_	24 @ 250 MHz	20,10, <b>5,2</b>	50 @ 500 MHz	2000	0.22	500	Gray
0805CS-270X _B_	27 @ 250 MHz	20,10, <b>5,2</b>	55 @ 500 MHz	2500	0.25	500	Violet
0805CS-330X _B_	33 @ 250 MHz	20,10, <b>5,2,1</b>	60 @ 500 MHz	2050	0.27	500	Gray
0805CS-360X _B_	36 @ 250 MHz	20,10, <b>5,2,1</b>	55 @ 500 MHz	1700	0.27	500	Orange
0805CS-390X _B_	39 @ 250 MHz	20,10, <b>5,2,1</b>	60 @ 500 MHz	2000	0.29	500	White
0805CS-430X _B_	43 @ 200 MHz	20,10, <b>5,2,1</b>	60 @ 500 MHz	1650	0.34	500	Yellow
0805CS-470X _B_	47 @ 200 MHz	20,10, <b>5,2,1</b>	60 @ 500 MHz	1650	0.31	500	Black
0805CS-560X _B_	56 @ 200 MHz	10, <b>5,2,1</b>	60 @ 500 MHz	1550	0.34	500	Brown
0805CS-680X _B_	68 @ 200 MHz	10, <b>5,2,1</b>	60 @ 500 MHz	1450	0.38	500	Red
0805CS-820X _B_	82 @ 150 MHz	10, <b>5,2,1</b>	65 @ 500 MHz	1300	0.42	400	Orange
0805CS-910X _B_	91 @ 150 MHz	20,10, <b>5,2,1</b>	65 @ 500 MHz	1200	0.48	400	Black
0805CS-101X _B_	100 @ 150 MHz	10, <b>5,2,1</b>	65 @ 500 MHz	1200	0.46	400	Yellow
0805CS-111X _B_	110 @ 150 MHz	20,10, <b>5,2</b>	50 @ 250 MHz	1000	0.48	400	Brown
0805CS-121X _B_	120 @ 150 MHz	10, <b>5,2,1</b>	50 @ 250 MHz	1100	0.51	400	Green
0805CS-151X _B_	150 @ 100 MHz	10, <b>5,2,1</b>	50 @ 250 MHz	920	0.56	400	Blue
0805CS-181X _B_	180 @ 100 MHz	10, <b>5,2,1</b>	50 @ 250 MHz	870	0.64	400	Violet
0805CS-221X _B_	220 @ 100 MHz	10, <b>5,2</b>	50 @ 250 MHz	850	0.70	400	Gray
0805CS-241X _B_	240 @ 100 MHz	20,10, <b>5,2</b>	44 @ 250 MHz	690	1.0	350	Red
0805CS-271X _B_	270 @ 100 MHz	10, <b>5,2</b>	48 @ 250 MHz	650	1.0	350	White
0805CS-331X _B_	330 @ 100 MHz	10, <b>5,2</b>	48 @ 250 MHz	600	1.4	310	Black
0805CS-391X _B_	390 @ 100 MHz	10, <b>5,2</b>	48 @ 250 MHz	560	1.5	290	Brown
0805CS-471X _B_	470 @ 50 MHz	10, <b>5,2</b>	33 @ 100 MHz	375	1.76	250	Violet
0805CS-561X _B_	560 @ 25 MHz	10, <b>5,2</b>	23 @ 50 MHz	340	1.90	230	Orange
0805CS-681X _B_	680 @ 25 MHz	10, <b>5,2</b>	23 @ 50 MHz	188	2.20	190	Green
0805CS-821X _B_	820 @ 25 MHz	10, <b>5,2</b>	23 @ 50 MHz	215	2.35	180	Blue

1. Specify **tolerance**, **termination**, and **packaging** codes:

0805CS-821X **G B C**

**Tolerance:** F = 1% G = 2% J = 5% K = 10% M = 20%  
(Table shows stock tolerances in bold.)

**Termination:** B = Ag/Pd/Pt/Pb L = Lead free Ag/Pd/Pt

**Packaging:** C = 7" machine-ready reel. EIA-481 embossed plastic tape (2000 per full reel).

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

D = 13" machine-ready reel. EIA-481 embossed plastic tape. Factory order only, not stocked (7500 per full reel).

2. Inductance measured using Coilcraft SMD-A fixture in Agilent/HP 4286A 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/HP 4291A with Agilent/HP 16193 test fixture and on Agilent/HP 8753D with Coilcraft SMD-D test fixture.

5. SRF measured using Agilent/HP 8720D network analyzer and Coilcraft SMD-D test fixture.

6. DCR measured on Cambridge Technology micro-ohmmeter and Coilcraft CCF858 test fixture.

7. Average current for a 15°C rise above 25°C ambient.

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

9. Electrical specifications at 25°C.

See Qualification Standards section for environmental and test data.

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

**Coilcraft**<sup>®</sup>

Specifications subject to change without notice. Document 100-1 Revised 11/25/02

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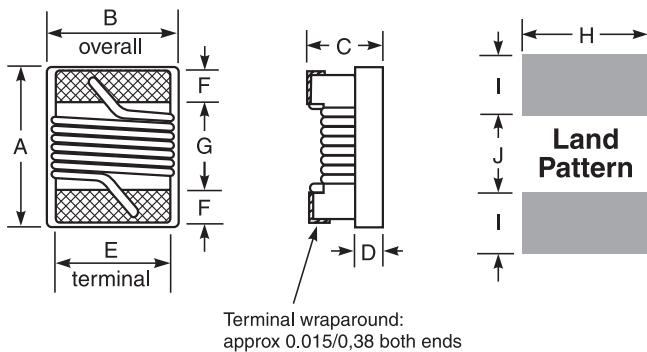
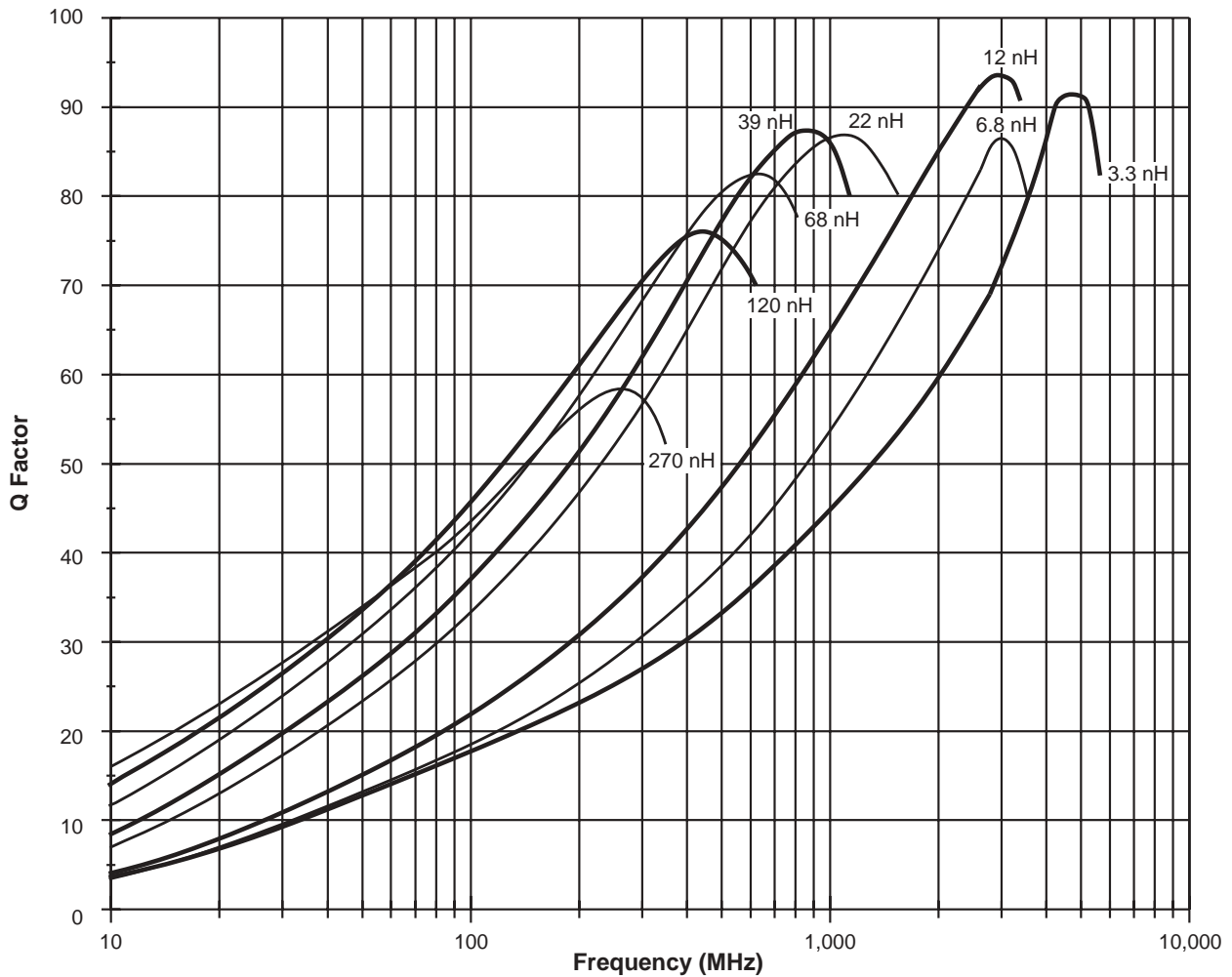
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# 0805CS Series (2012)

## Typical Q vs Frequency

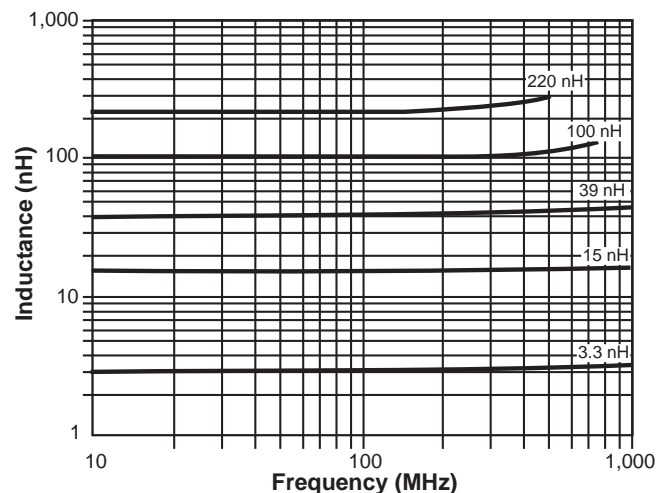
**S-Parameter files**  
ON OUR WEB SITE OR CD  
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ON OUR WEB SITE OR CD



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

Parts/reel: 7" 2,000; 13" 7,500 Tape width: 8 mm  
For packaging data see Tape and Reel Specifications section.

## Typical L vs Frequency



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