

NEW!

Chip Inductors - 0402CS Series (1005)

Coilcraft is introducing the industry's first 0402 wire-wound inductor.

This new series shares all of the characteristics of Coilcraft's other ceramic inductors: exceptionally high Q factors, especially at use frequencies; outstanding SRFs;

tight inductance tolerances; and excellent batch-to-batch consistency.

Coilcraft **Designer's Kit C128** contains samples of all inductance values (5% tolerance where available). To order, contact Coilcraft or visit <http://order.coilcraft.com>.

Part number ¹	Inductance ² (nH)	Percent tolerance ³	Q Min ⁴	SRF Min ⁵ (MHz)	R _{DC} Max ⁶ (Ohms)	I _{DC} Max ⁷ (mA)	900 MHz		1.7 GHz	
							L Typ	Q Typ	L Typ	Q Typ
0402CS-1N0X_BY	1.0 @ 250 MHz	10	16	>6000	0.045	1360	1.02	77	1.02	69
0402CS-2N0X_BY	2.0 @ 250 MHz	10,5	16	>6000	0.070	1040	1.93	54	1.93	75
0402CS-2N2X_BY	2.2 @ 250 MHz	10,5	19	>6000	0.070	960	2.19	59	2.23	100
0402CS-3N3X_BY	3.3 @ 250 MHz	10,5	19	6000	0.066	840	3.10	65	3.12	87
0402CS-3N6X_BY	3.6 @ 250 MHz	10,5	19	6000	0.066	840	3.56	45	3.62	71
0402CS-3N9X_BY	3.9 @ 250 MHz	10,5	19	5800	0.066	840	3.89	50	4.00	75
0402CS-5N1X_BY	5.1 @ 250 MHz	10,5	20	5800	0.083	800	5.15	56	5.25	82
0402CS-5N6X_BY	5.6 @ 250 MHz	10,5	20	5800	0.083	760	5.16	54	5.28	81
0402CS-6N2X_BY	6.2 @ 250 MHz	10,5	20	5800	0.083	760	6.16	52	6.37	76
0402CS-7N5X_BY	7.5 @ 250 MHz	10,5	22	5800	0.104	680	7.91	60	8.22	88
0402CS-8N2X_BY	8.2 @ 250 MHz	10,5	22	4400	0.104	680	8.50	57	8.85	84
0402CS-9N0X_BY	9.0 @ 250 MHz	10,5	22	4160	0.104	681	9.07	62	9.53	78
0402CS-10NX_BY	10 @ 250 MHz	10,5	21	3900	0.195	480	9.8	50	10.1	67
0402CS-11NX_BY	11 @ 250 MHz	10,5	24	3680	0.120	640	10.7	52	11.2	78
0402CS-12NX_BY	12 @ 250 MHz	10,5	24	3600	0.120	640	11.9	53	12.7	71
0402CS-15NX_BY	15 @ 250 MHz	10,5	24	3280	0.172	560	14.6	55	15.5	77
0402CS-19NX_BY	19 @ 250 MHz	10,5	24	3040	0.202	480	19.1	50	21.1	67
0402CS-23NX_BY	23 @ 250 MHz	10,5	24	2720	0.214	400	23.8	49	26.9	64
0402CS-27NX_BY	27 @ 250 MHz	10,5	24	2480	0.298	400	28.7	49	33.5	63
0402CS-36NX_BY	36 @ 250 MHz	10,5	24	2320	0.403	320	39.5	44	48.4	53
0402CS-40NX_BY	40 @ 250 MHz	10,5	24	2240	0.438	320	39.0	44	47.4	33
0402CS-47NX_BY	47 @ 250 MHz	10,5	20	2100	0.830	150	50.0	38	-	-

* For environmental data see "Product Specifications" section (Document 121).

1. **When ordering, please specify tolerance and packaging codes:**
0402CS-40NX_BY

Packaging

Y= EIA RS-481 paper carrier (standard).
For orders of less than a full reel, there is a \$25 per reel charge to make them machine-ready.
B= In a carrier tape but without leader or trailer.

Inductance tolerance

J=5%, K=10%
Table above shows stock tolerances in bold.

2. Inductance measured using Coilcraft SMD-A fixture in 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 HP4291A with HP16193 test fixture.

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

6. R_{DC} measured on micro-ohmmeter.

7. For 15° C rise.

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

9. Electrical specifications at 25° C.

Specifications subject to change without notice. Document 198-1 Revised 1/11/00

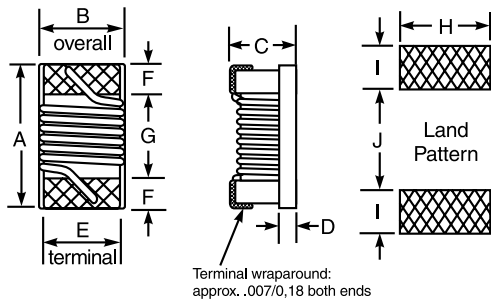
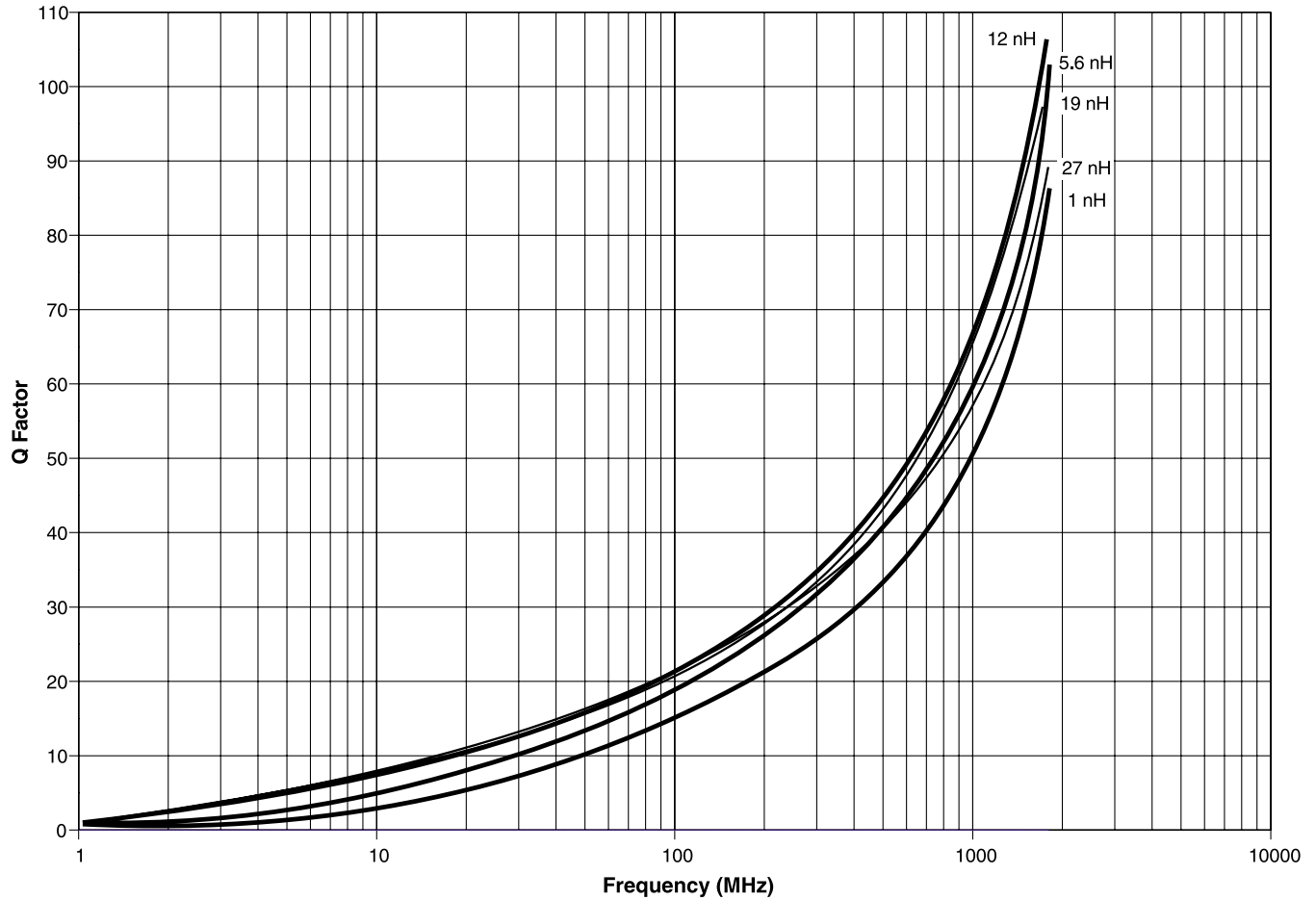
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NEW!

0402CS (1005) Chip Inductors

S-Parameter files
ON OUR WEB SITE OR CD
PSPICE models
SEE DOC 158

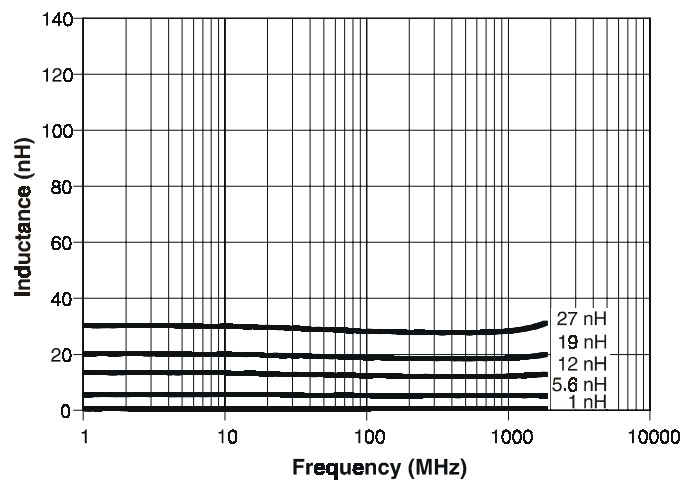
TYPICAL Q vs FREQUENCY



A	B	C	D	E	F	G	H	I	J
Max.	Max.	Max.	Ref.						
.047	.025	.026	.010	.020	.009	.022	.026	.014	.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 (Doc. 173)

TYPICAL L vs FREQUENCY



Coilcraft

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