

Chip Inductors—0805HQ Series (2012)

The 0805HQ Series offers our highest Q factors in an 0805 form factor. In addition, current handling has also been improved with significantly lower RDC values.

Like all Coilcraft wirewound ceramic chip inductors, the 0805HQ Series provides exceptional SRFs, tight

inductance tolerance, and batch consistency.

For even higher Qs, consider our surface mount spring inductors that combine the high Q of an air wound coil with the convenience of automatic placement.

Coilcraft **Designer's Kit C125** contains samples of all inductance values. To order, contact Coilcraft.

Part Number ¹	Inductance ² (nH)	Percent Tolerance ³	Q Min ⁴	SRF Min ⁵ (GHz)	R _{DC} Max ⁶ (Ohms)	I _{DC} Max ⁷ (A)	Color Code
0805HQ-2N5X_BC	2.5 @ 250 MHz	10, 5	80 @ 1500 MHz	>6.00	0.020	1.6	Black
0805HQ-5N6X_BC	5.6 @ 250 MHz	10, 5	98 @ 1500 MHz	>6.00	0.035	1.6	Brown
0805HQ-6N2X_BC	6.2 @ 250 MHz	10, 5	88 @ 1000 MHz	4.75	0.035	1.6	Red
0805HQ-12NX_BC	12 @ 250 MHz	10, 5	80 @ 1000 MHz	3.00	0.045	1.6	Orange
0805HQ-16NX_BC	16 @ 250 MHz	10, 5, 2	72 @ 500 MHz	2.95	0.060	1.5	Yellow
0805HQ-18NX_BC	18 @ 250 MHz	10, 5, 2	75 @ 500 MHz	2.55	0.060	1.4	Green
0805HQ-20NX_BC	20 @ 250 MHz	10, 5, 2	70 @ 500 MHz	2.05	0.055	1.4	Blue
0805HQ-27NX_BC	27 @ 250 MHz	10, 5, 2	75 @ 500 MHz	2.00	0.070	1.3	Violet
0805HQ-30NX_BC	30 @ 250 MHz	10, 5, 2	65 @ 500 MHz	1.95	0.095	1.2	Gray
0805HQ-39NX_BC	39 @ 250 MHz	10, 5, 2	65 @ 500 MHz	1.60	0.110	1.1	White
0805HQ-48NX_BC	48 @ 200 MHz	10, 5, 2	65 @ 500 MHz	1.40	0.095	1.2	Black
0805HQ-51NX_BC	51 @ 200 MHz	10, 5, 2	65 @ 500 MHz	1.40	0.120	1.0	Brown

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

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

0805HQ-51NX_BC

Packaging

C = EIA RS-481 clear tape and reel (standard).

For orders of less than a full reel, there is a \$25 per reel charge to make them machine-ready.

B = Bulk. In a carrier tape but without leader or trailer.

Inductance tolerance

J=5%, **K**=10%

Table above shows stock tolerances in bold.

Other tolerances shown are available on special order.

2. Inductance measured using Coilcraft SMD-A fixture in HP4286A 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 and on HP8753D with Coilcraft SMD-D test fixture.

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

6. R_{DC} measured on Cambridge Technology micro-ohmmeter and Coilcraft CCF 840 test fixture.

7. For 15°C rise.

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

COILCRAFT ACCURATE
PRECISION REPEATABLE
MEASUREMENTS
DOC. 126 **TEST FIXTURES**

Coilcraft

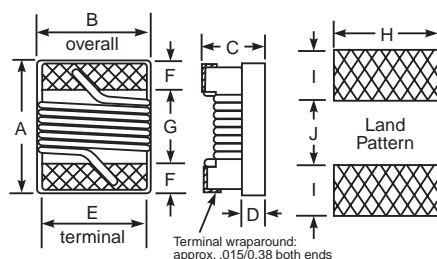
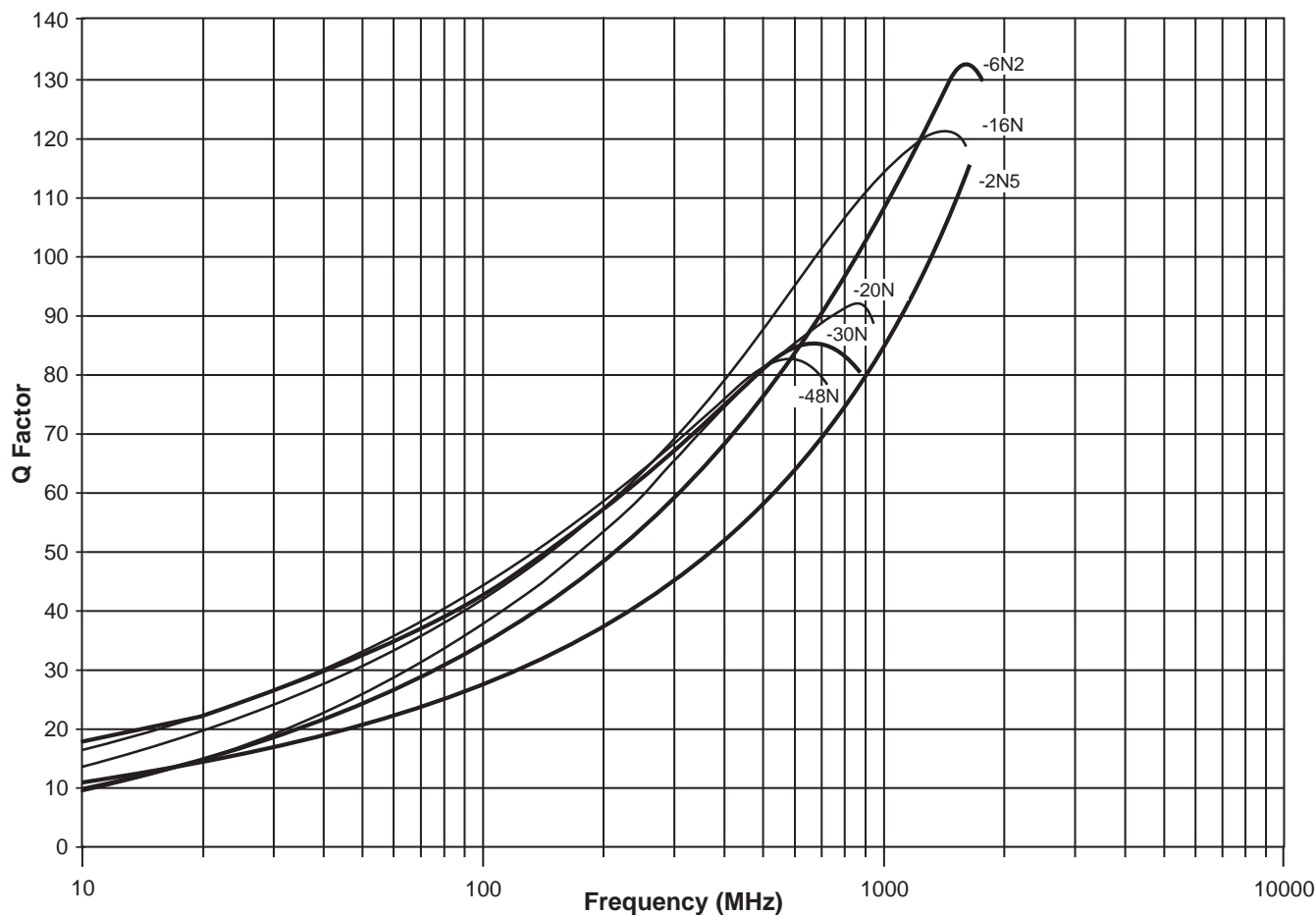
Specifications subject to change without notice. Document 197-1 Revised 8/31/99

1102 Silver Lake Road Cary, Illinois 60013 Phone 847/639-6400 Fax 847/639-1469
E-mail info@coilcraft.com Data by Fax 800/651-6974 Web http://www.coilcraft.com

0805HQ Series (2012)

TYPICAL Q vs FREQUENCY

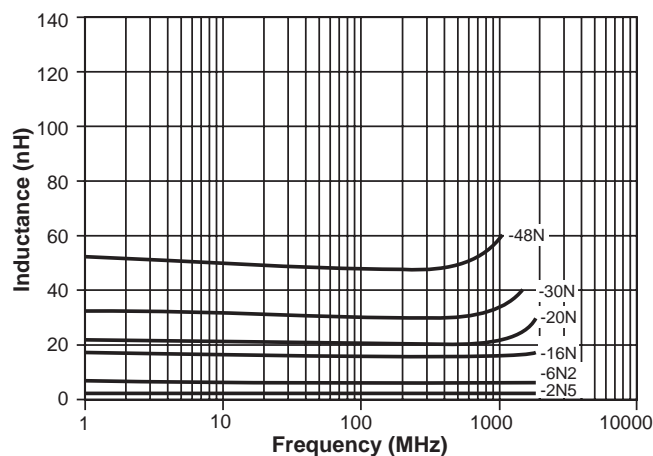
S-Parameter files
ON OUR WEB SITE OR CD
PSPICE models
SEE DOC 158



A	B	C	D	E	F	G	H	I	J
Max.	Max.	Max.	Ref.						
.090	.068	.060	.020	.050	.020	.040	.070	.040	.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: 8mm
For packaging data see "Tape and Reel Specifications" (Document 173)

L vs FREQUENCY



Coilcraft

Specifications subject to change without notice. Document 197-2 Revised 5/19/99

1102 Silver Lake Road Cary, Illinois 60013 Phone 847/639-6400 Fax 847/639-1469
E-mail info@coilcraft.com Data by Fax 800/651-6974 Web <http://www.coilcraft.com>