

# Chip Inductors - 0603HS Series (1608)

The world's smallest wirewound inductor! These coils offer far greater Q factors and higher self-resonant frequencies than non-wirewound inductors.

Coilcraft **Designer's Kit C112** contains samples of all the standard values. To order, contact Coilcraft.

Part Number	Inductance <sup>1</sup> (nH)	Percent Tolerance <sup>2</sup>	Q Min <sup>3</sup>	SRF Min <sup>4</sup> (MHz)	R <sub>DC</sub> Max <sup>5</sup> (Ohms)	I <sub>DC</sub> Max <sup>6</sup> (mA)	900 MHz		1.7 GHz		Color Code
							L Typ	Q Typ	L Typ	Q Typ	
0603HS-1N8TKBC	1.8 @ 250 MHz	<b>10</b>	16	>6000	.045	700	1.63	35	1.66	50	Black
0603HS-3N9TKBC	3.9 @ 250 MHz	<b>10</b>	22	>6000	.080	700	3.95	49	3.96	67	Brown
0603HS-6N8TKBC	6.8 @ 250 MHz	<b>10</b>	27	5800	.110	700	6.75	60	7.1	81	Red
0603HS-10NTJBC	10 @ 250 MHz	<b>5</b>	31	4800	.130	700	10	66	10.6	83	Orange
0603HS-12NTJBC	12 @ 250 MHz	<b>5</b>	35	4000	.130	700	12.3	72	13.5	83	Yellow
0603HS-15NTJBC	15 @ 250 MHz	<b>5</b>	35	4000	.170	700	15.4	64	16.8	89	Green
0603HS-18NTJBC	18 @ 250 MHz	<b>5</b>	35	3100	.170	700	18.7	70	21.4	69	Blue
0603HS-22NTJBC	22 @ 250 MHz	<b>5</b>	38	3000	.190	700	22.8	73	26.1	71	Violet
0603HS-27NTJBC	27 @ 250 MHz	<b>5,2</b>	40	2800	.220	600	29.2	74	34.6	65	Gray
0603HS-33NTJBC	33 @ 250 MHz	<b>5,2</b>	40	2300	.220	600	36	67	49.5	42	White
0603HS-39NTJBC	39 @ 250 MHz	<b>5,2</b>	40	2200	.250	600	42.7	60	60.2	40	Black
0603HS-47NTJBC	47 @ 200 MHz	<b>5,2</b>	38	2000	.280	600	52.2	62	77.2	35	Brown
0603HS-56NTJBC	56 @ 200 MHz	<b>5,2</b>	38	1900	.310	600	62.5	56	97	26	Red
0603HS-68NTJBC	68 @ 200 MHz	<b>5,2</b>	37	1700	.340	600	80.5	54	168	21	Orange
0603HS-72NTJBC	72 @ 150 MHz	<b>5,2</b>	34	1700	.490	400	82.0	53	135	20	Yellow
0603HS-82NTJBC	82 @ 150 MHz	<b>5,2</b>	34	1700	.540	400	96.2	54	177	21	Green
0603HS-R10TJBC	100 @ 150 MHz	<b>5,2</b>	34	1400	.580	400	124	49	—	—	Blue
0603HS-R11TJBC	110 @ 150 MHz	<b>5,2</b>	32	1350	.610	300	138	43	—	—	Violet
0603HS-R12TJBC	120 @ 150 MHz	<b>5,2</b>	32	1300	.650	300	166	39	—	—	Gray

For help ordering non-standard parts, see "Part Numbering" (Document 120).  
For environmental data see "Product Specifications" (Document 121).

For part marking data see "Color Coding" (Document 174).

- Inductance measured using Coilcraft SMD-A fixture in HP4191A impedance analyzer with Coilcraft-provided correlation pieces. For recommended test procedures, contact Coilcraft.
- Bold number indicates standard tolerance. When ordering other tolerances, replace the third to the last letter in the part number with the proper tolerance code: F=1%, G=2%, J=5%, K=10%, M=20%. (e.g. 0603HS-1N8XJBC for a 5% tolerance part).

3. Q measured using HP4291A with HP16193 test fixture and on HP8753B with Coilcraft SMD-E test fixture.

4. SRF measured using HP8753B network analyzer and Coilcraft SMD-D test fixture.

5. R<sub>DC</sub> measured on Cambridge Technology micro-ohmmeter and Coilcraft CCF858 test fixture.

6. For 15°C rise.

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

**COILCRAFT** ACCURATE  
REPEATABLE  
**PRECISION** MEASUREMENTS  
PAGE 126 **TEST FIXTURES**

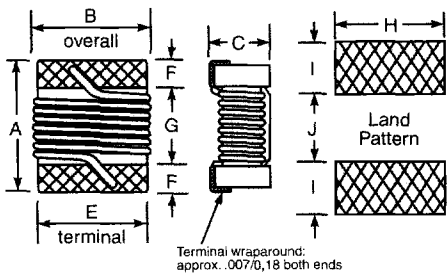
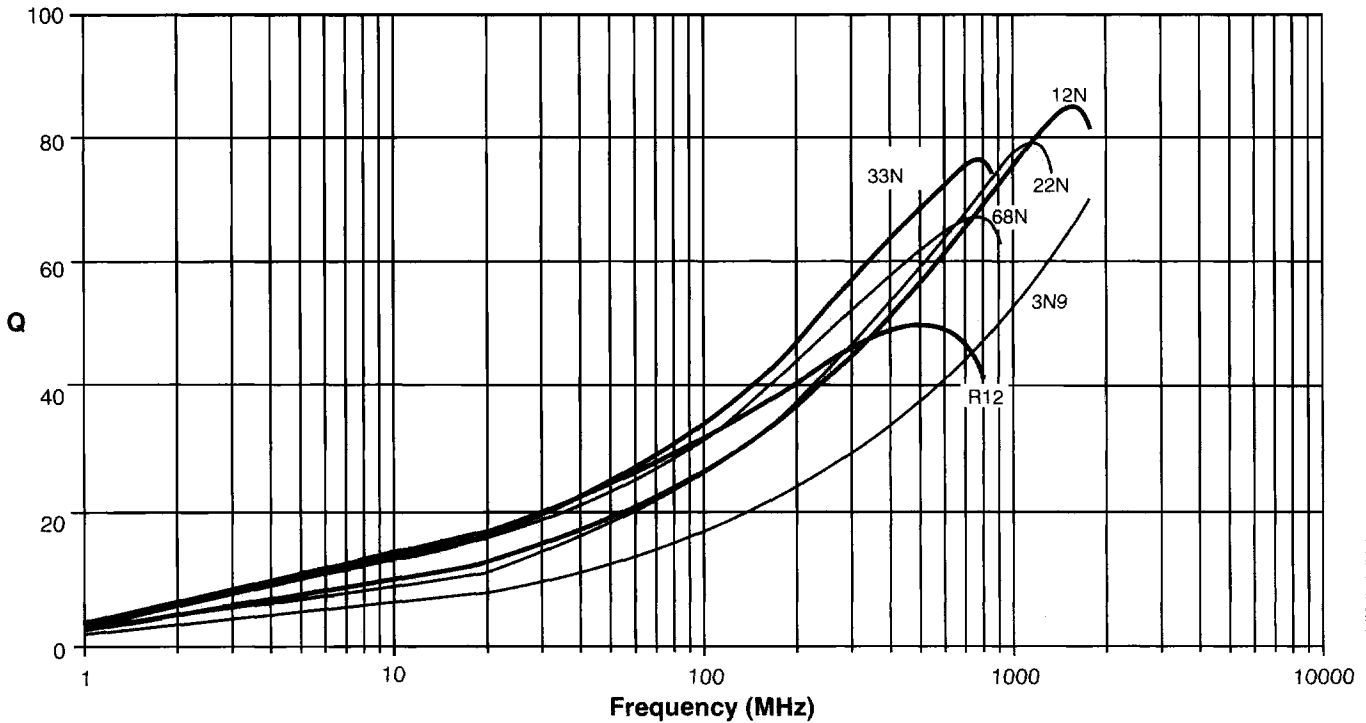
*Coilcraft*

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# 0603HS Series (1608)

## TYPICAL Q vs FREQUENCY

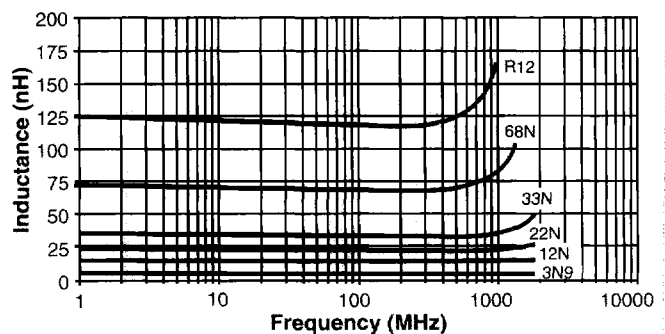


Terminal wraparound:  
approx. .007/0,18 both ends

A	B	C	E	F	G	H	I	J
Max. .067	Max. .045	Max. .040	.030	.013	.034	.040	.025	.025
1,70	1,14	1,02	0,76	0,33	0,86	1,02	0,64	0,64

Parts/reel: 7" 2,000; 13" 7,500 Tape width: 8mm  
For packaging data see "Tape and Reel Specifications" (Document 173)

## L vs FREQUENCY



Document 175-2 Revised 6/25/97

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