

HIGH CURRENT

Chip Inductors - 0603HC Series (1608)

With their high current ratings and ultra-small size, these chip inductors are ideal for today's high frequency, low voltage applications like mobile phones.

They feature continuous current ratings up to 2.4 Amps DC and will handle transient currents up to 50% higher.

At low inductance values, their Q factors are also higher than our standard 0603CS Series.

Coilcraft **Designer's Kit C139** contains samples of all 5% tolerance parts. To order, contact Coilcraft or visit <http://order.coilcraft.com> to order on-line.

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 (A)	900 MHz		1.7 GHz		Color Code
							L Typ	Q Typ	L Typ	Q Typ	
0603HC-1N6X_BY	1.6 @250 MHz	10,5	24	12500	0.030	2.4	1.67	49	1.65	63	Black
0603HC-3N6X_BY	3.6 @250 MHz	10,5	24	5900	0.048	2.3	3.65	70	3.75	90	Brown
0603HC-3N9X_BY	3.9 @250 MHz	10,5	25	5900	0.054	2.2	3.74	70	3.90	90	Red
0603HC-6N8X_BY	6.8 @250 MHz	10,5	35	5800	0.054	2.1	6.72	70	7.10	75	Orange
0603HC-7N5X_BY	7.5 @250 MHz	10,5	38	3700	0.059	2.1	7.33	70	7.90	68	Yellow
0603HC-10NX_BY	10 @250 MHz	10,5,2	38	3700	0.071	2.0	9.70	73	10.5	57	Green
0603HC-12NX_BY	12 @250 MHz	10,5,2	38	3000	0.075	2.0	12.3	68	14.5	41	Blue
0603HC-15NX_BY	15 @250 MHz	10,5,2	38	2800	0.080	1.9	15.5	65	17.6	40	Violet
0603HC-18NX_BY	18 @250 MHz	10,5,2	40	2800	0.099	1.9	19.5	62	25.0	40	Gray
0603HC-22NX_BY	22 @250 MHz	10,5,2	42	2400	0.099	1.8	24.0	61	31.5	26	White
0603HC-24NX_BY	24 @250 MHz	10,5,2	42	2400	0.105	1.8	25.8	55	35.0	21	Black

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

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

0603HC-24NX_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

G=2%, 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 and Coilcraft CCF858 test fixture.

7. For 20° C rise.

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

9. Electrical specifications at 25° C.

COILCRAFT ACCURATE
PRECISION REPEATABLE
MEASUREMENTS
DOC. 126 TEST FIXTURES

Specifications subject to change without notice. Document 218-1 Revised 1/5/00

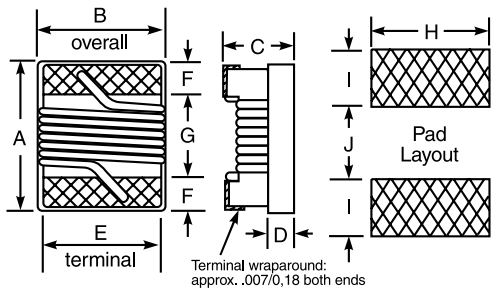
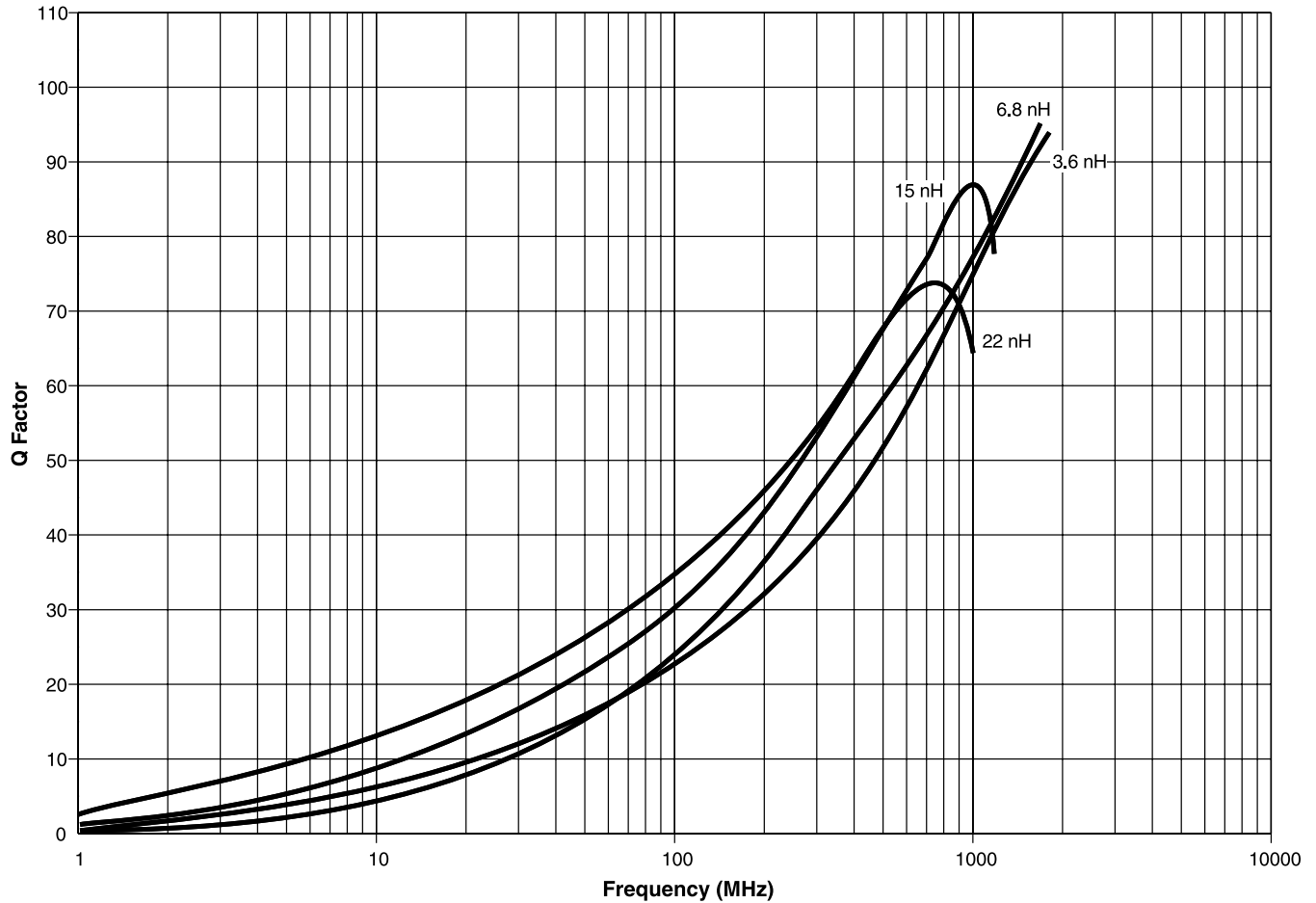
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0603HC (1608) Chip Inductors

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

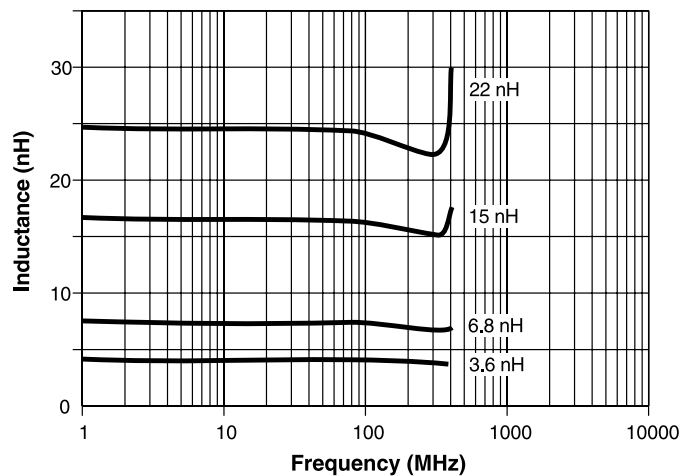
TYPICAL Q vs FREQUENCY



A	B	C	D	E	F	G	H	I	J
Max.	Max.	Max.	Ref.						
.071	.044	.040	.015	.030	.013	.034	.040	.025	.025
1,80	1,12	1,02	0,38	0,76	0,33	0,86	1,02	0,64	0,64

Parts/reel: 7" 2000; 13" 7500 Tape width: 8 mm
For packaging data see "Tape and Reel Specifications" section (Doc. 173)

TYPICAL L vs FREQUENCY



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