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% inductance tolerance parts. To order, contact Coilcraft or visit **http://order.coilcraft.com**.

Part number[1]	Inductance[2] (nH)	Percent tolerance[3]	Q min[4]	900 MHz		1.7 GHz		SRF min[5] (MHz)	DCR max[6] (Ohms)	Irms[7] (A)	Color code
				L typ	Q typ	L typ	Q typ				
0603HC-1N6X_B_	1.6	**5**	24	1.67	49	1.65	63	12500	0.030	2.4	Black
0603HC-3N6X_B_	3.6	**5**	24	3.65	70	3.75	90	5900	0.048	2.3	Brown
0603HC-3N9X_B_	3.9	**5**	25	3.74	70	3.90	90	5900	0.054	2.2	Red
0603HC-6N8X_B_	6.8	**5**	35	6.72	70	7.10	75	5800	0.054	2.1	Orange
0603HC-7N5X_B_	7.5	**5**	38	7.33	70	7.90	68	3700	0.059	2.1	Yellow
0603HC-10NX_B_	10	**5,2**	38	9.70	73	10.5	57	3700	0.071	2.0	Green
0603HC-12NX_B_	12	**5,2**	38	12.3	68	14.5	41	3000	0.075	2.0	Blue
0603HC-15NX_B_	15	**5,2**	38	15.5	65	17.6	40	2800	0.080	1.9	Violet
0603HC-18NX_B_	18	**5,2**	40	19.5	62	25.0	40	2800	0.099	1.9	Gray
0603HC-22NX_B_	22	**5,2**	42	24.0	61	31.5	26	2400	0.099	1.8	White
0603HC-24NX_B_	24	**5,2**	42	25.8	55	35.0	21	2400	0.105	1.8	Black

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

0603HC-24NX J B W

Tolerance: **G** = 2% **J** = 5% (Table shows stock tolerances in bold.)

Packaging: **W** = 7″ machine-ready reel. EIA-481 punched paper tape (2000 parts per full reel).

U = Less than full reel. In tape, but not machine ready. To have a leader and trailer added ($25 charge), use code letter W instead.

2. Inductance measured at 250 MHz using Coilcraft SMD-A fixture in Agilent/HP 4286 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 at 250 MHz using Agilent/HP 4291A with Agilent/HP 16193 test fixture.
5. SRF measured using Agilent/HP 8720D network analyzer and Coilcraft SMD-D test fixture.
6. DCR measured on micro-ohmmeter and Coilcraft CCF858 test fixture.
7. Average current for a 20°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.

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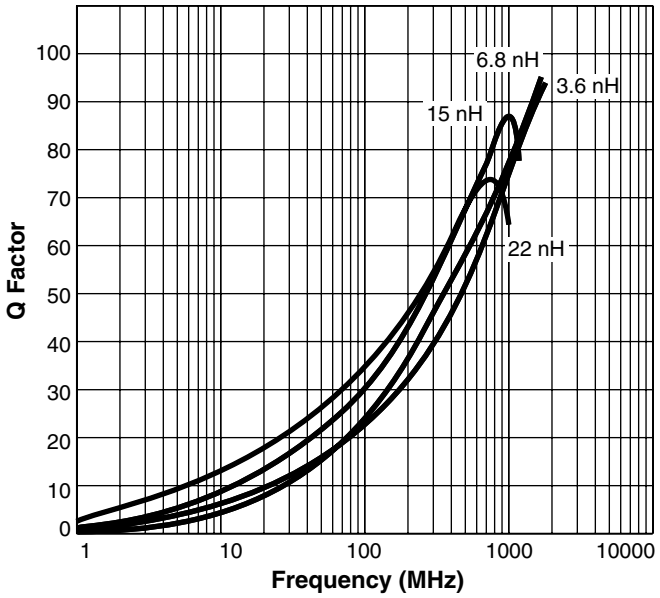
0603HC (1608) Chip Inductors

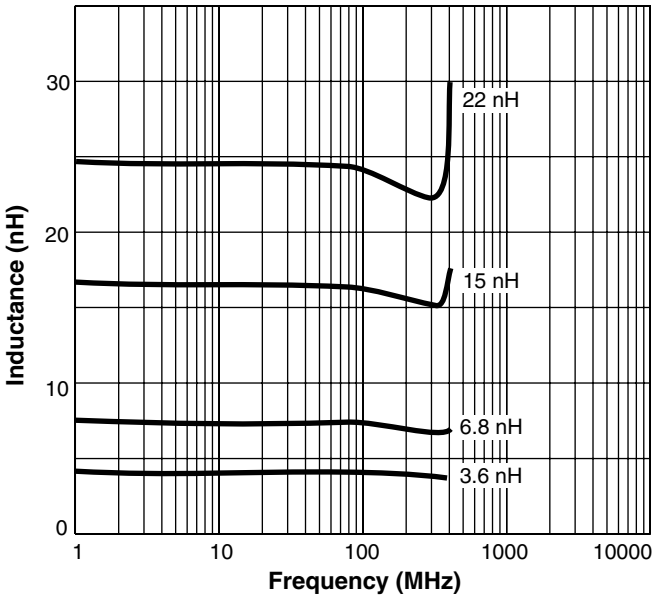
S-Parameter files
ON OUR WEB SITE OR CD

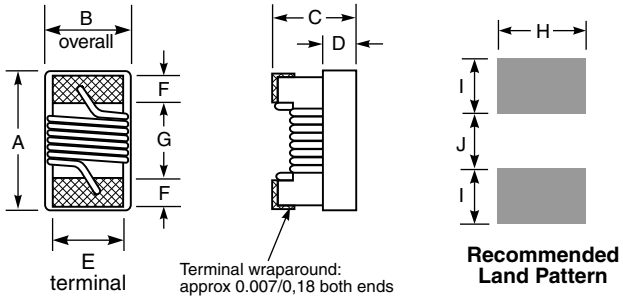
SPICE models
ON OUR WEB SITE OR CD

Typical Q vs Frequency



Typical L vs Frequency





A max	B max	C max	D ref	E	F	G	H	I	J
0.071	0.044	0.040	0.015	0.030	0.013	0.034	0.040	0.025	0.025
1,80	1,12	1,02	0,38	0,76	0,33	0,86	1,02	0,64	0,64

Weight: 3.3 – 3.7 mg
Terminations: Silver-palladium-platinum
Tape and reel: 2000/7″ reel 8 mm tape width
For packaging data see Tape and Reel Specifications section.

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