



Chip Inductors - 0604HQ Series (1610)

- Combines the exceptionally high Q of an air core inductor with the rugged construction of a ceramic body component.
- Provides intermediate inductance values not available in Coilcraft's 0603, 0402 or 0906 product families

Request free evaluation samples by contacting Coilcraft or visiting www.coilcraft.com.

Part number ¹	Inductance ² (nH)	Percent tolerance ³	Q min ⁴	900 MHz		1.7 GHz		SRF min ⁵ (GHz)	DCR max ⁶ (Ohms)	Irms ⁷ (A)	Color code
				L typ	Q typ	L typ	Q typ				
0604HQ-1N1XJL_	1.15	5	25	1.2	40	1.2	136	12.3	0.021	3.0	Black
0604HQ-2N6XJL_	2.6	5	45	2.6	78	2.6	163	9.3	0.026	2.0	Brown
0604HQ-4N5XJL_	4.5	5	50	4.5	103	4.7	155	5.8	0.032	1.8	Red
0604HQ-5N0XJL_	5.0	5	60	4.9	106	5.2	178	5.3	0.032	1.6	Orange
0604HQ-6N8XJL_	6.8	5	60	6.9	101	7.4	172	4.7	0.035	1.8	Yellow
0604HQ-7N6XJL_	7.6	5	60	7.4	109	7.9	137	4.4	0.035	1.5	Green
0604HQ-10NXJL_	10.4	5	60	10.6	103	11.5	160	4.1	0.037	1.5	Blue

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

0604HQ-10NXJL C

Termination: **L** = RoHS compliant silver-palladium-platinum-glass frit. Special order: **T** = RoHS tin-silver-copper (95.5/4/0.5) or **S** = non-RoHS tin-lead (63/37).

Packaging: **C** = 7" machine-ready reel. EIA-481 embossed plastic tape (2000 parts per full reel).

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

- Inductance measured at 500 MHz using a Coilcraft SMD-A fixture in an Agilent/HP 4286 impedance analyzer with Coilcraft-provided correlation pieces.
- Tolerances in bold are stocked for immediate shipment.
- Q measured at 500 MHz using an Agilent/HP 4291A with an Agilent/HP 16193 test fixture.
- For SRF less than 6 GHz, measured using an Agilent/HP 8753D network analyzer and a Coilcraft SMD-D test fixture. For SRF greater than 6 GHz, measured using an Agilent/HP 8722ES network analyzer and a Coilcraft SMD-D test fixture.
- DCR measured on a Cambridge Technology micro-ohmmeter and a Coilcraft CCF858 test fixture.
- Current that causes a 15°C temperature rise from 25°C ambient.
- Electrical specifications at 25°C.
- Temperature coefficient of inductance: +25 to +125 ppm/°C. See Qualification Standards section for environmental and test data. Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

Designer's Kit C351 contains 10 each of all values

Core material Ceramic

Terminations RoHS compliant silver-palladium-platinum-glass frit. Other terminations available at additional cost.

Weight 4.6 – 5.6 g

Ambient temperature –40°C to +125°C with I rms current, +125°C to +140°C with derated current

Storage temperature Component: –40°C to +140°C. Packaging: –40°C to +80°C

Resistance to soldering heat Max three 40 second reflows at +260°C, parts cooled to room temperature between cycles

Temperature Coefficient of Inductance (TCL) +25 to +126 ppm/°C

Moisture Sensitivity Level (MSL) 1 (unlimited floor life at <30°C / 85% relative humidity)

Failures in Time (FIT) / Mean Time Between Failures (MTBF)

One per billion hours / one billion hours, calculated per Telcordia SR-332

Packaging 2000 per 7" reel; Plastic tape: 8 mm wide, 0.23 mm thick, 4 mm pocket spacing, 1.27 mm pocket depth

PCB washing Only pure water or alcohol recommended

COILCRAFT ACCURATE
PRECISION REPEATABLE
MEASUREMENTS
SEE INDEX **TEST FIXTURES**

Coilcraft[®]

Specifications subject to change without notice.
Please check our website for latest information.

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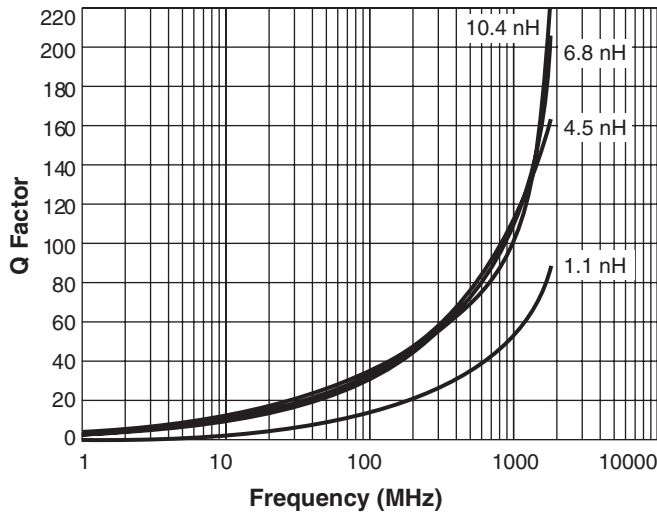
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0604HQ Series (1610)

Typical Q vs Frequency



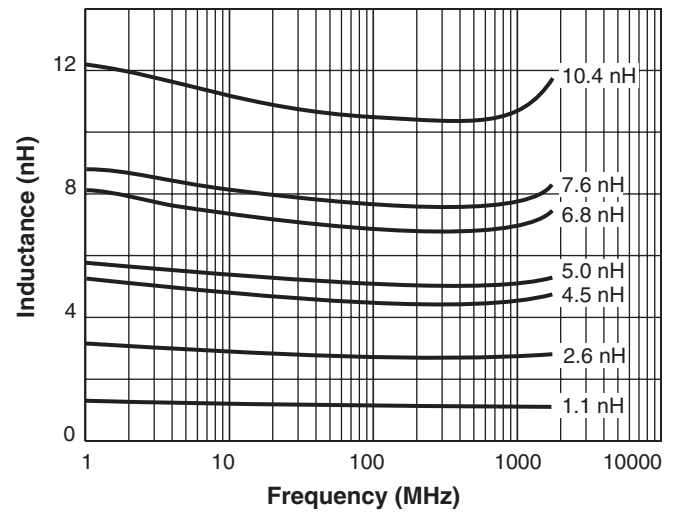
S-Parameter files

ON OUR WEB SITE OR CD

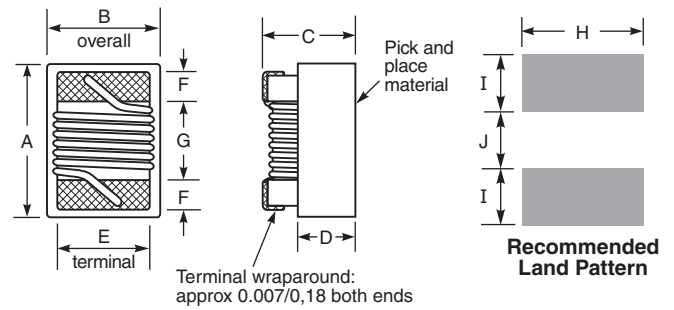
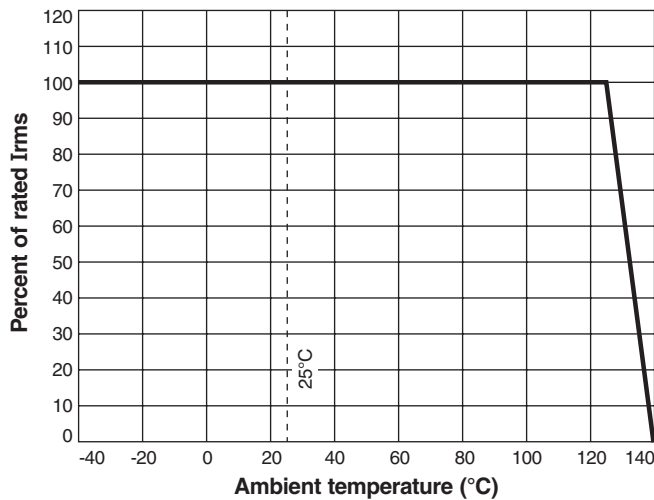
SPICE models

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Typical L vs Frequency



Irms Derating



A	B	C	D	E	F	G	H	I	J
max	max	max	ref						
0.073	0.054	0.047	0.025	0.040	0.013	0.034	0.053	0.025	0.025
1,85	1,37	1,19	0,64	1,02	0,33	0,86	1,35	0,63	0,63



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