

**NEW!**

# Chip Inductors – 0603HL Series (1608)

- Higher inductance values than other 0603 inductors
- Inductance range: 330 nH – 3.3  $\mu$ H

Part number <sup>1</sup>	Inductance <sup>2</sup> $\pm 5\%$ (nH)	Q <sub>typ</sub> <sup>3</sup>	SRF typ <sup>4</sup> (MHz)	DCR max <sup>5</sup> (Ohms)	Irms <sup>6</sup> (mA)	Color code
0603HL-331XJR_	330 @ 25 MHz	13 @ 25 MHz	420	0.970	330	Violet
0603HL-391XJR_	390 @ 25 MHz	13 @ 25 MHz	400	1.05	330	Gray
0603HL-471XJR_	470 @ 25 MHz	12 @ 25 MHz	200	1.15	300	White
0603HL-511XJR_	510 @ 25 MHz	12 @ 25 MHz	340	1.20	300	Black
0603HL-561XJR_	560 @ 25 MHz	12 @ 25 MHz	330	1.35	300	Brown
0603HL-681XJR_	680 @ 25 MHz	12 @ 25 MHz	310	1.80	260	Red
0603HL-821XJR_	820 @ 25 MHz	14 @ 25 MHz	290	2.45	190	Orange
0603HL-102XJR_	1000 @ 25 MHz	14 @ 25 MHz	250	2.80	190	Yellow
0603HL-122XJR_	1200 @ 25 MHz	14 @ 25 MHz	230	3.20	180	Green
0603HL-152XJR_	1500 @ 25 MHz	15 @ 25 MHz	190	4.10	150	Blue
0603HL-182XJR_	1800 @ 25 MHz	16 @ 25 MHz	180	5.30	140	Violet
0603HL-222XJR_	2200 @ 25 MHz	16 @ 25 MHz	165	5.90	130	Gray
0603HL-272XJR_	2700 @ 25 MHz	16 @ 25 MHz	150	7.00	120	White
0603HL-332XJR_	3300 @ 25 MHz	18 @ 25 MHz	135	9.10	110	Black

1. When ordering, please specify **packaging** code:

**0603HL-332XJRC**

**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 0.1 V<sub>rms</sub>, using a Coilcraft SMD-A fixture in Agilent/HP 4287A impedance analyzer or equivalent with Coilcraft-provided correlation pieces.
- Q measured using a Coilcraft SMD-A fixture in Agilent/HP 4287A impedance analyzer or equivalent.
- SRF measured using Agilent/HP 8753D network analyzer with Coilcraft SMD-D test fixture.
- DCR measured on Cambridge Technology Micro-ohmmeter or equivalent.
- Current that causes a 15°C temperature rise from 25°C ambient.
- Electrical specifications at 25°C.

Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

**Designer's Kit C449** contains 10 of each value

**Core material** Ceramic

**Environmental** RoHS compliant without exemption, halogen free

**Terminations** RoHS compliant matte tin over nickel over silver-platinum-glass frit.

**Weight** 3.2 – 4.4 mg

**Ambient temperature** –40°C to +125°C with Irms current, +125°C to +140°C with derated current

**Storage temperature** Component: –40°C to +140°C.  
Tape & reel 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)** +50 to +150 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, 1.0 mm pocket depth

**PCB washing** Only pure water or alcohol recommended



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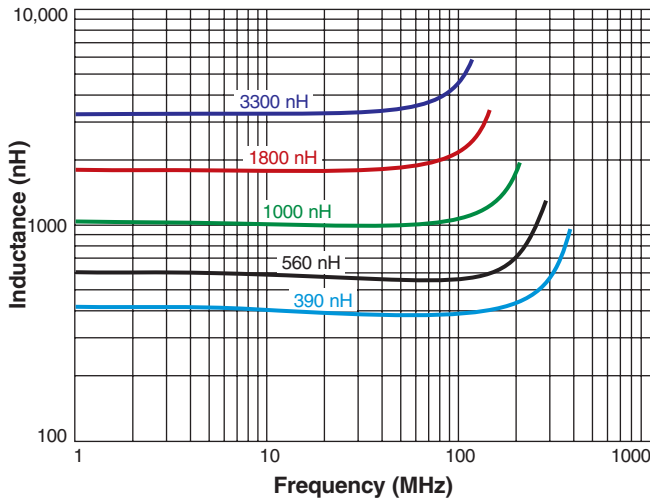
This product may not be used in medical or high risk applications without prior Coilcraft approval. Specification subject to change without notice. Please check out web site for latest information.



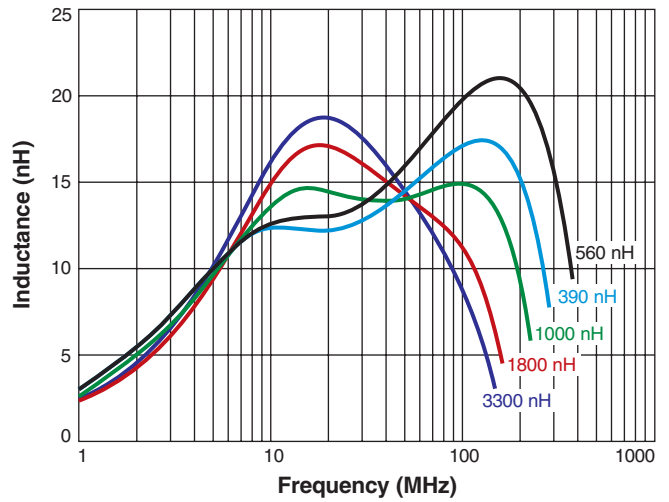
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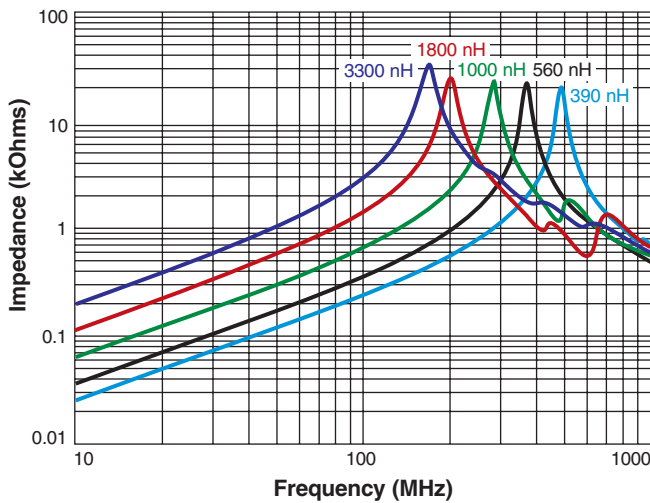
## Typical L vs Frequency



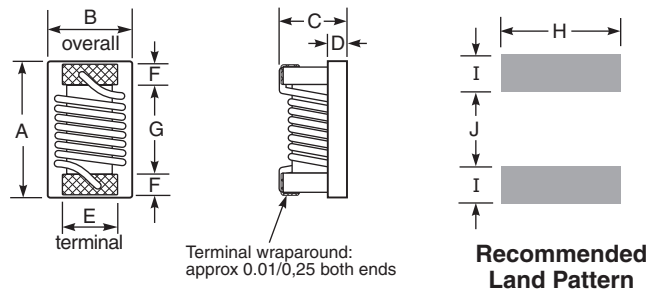
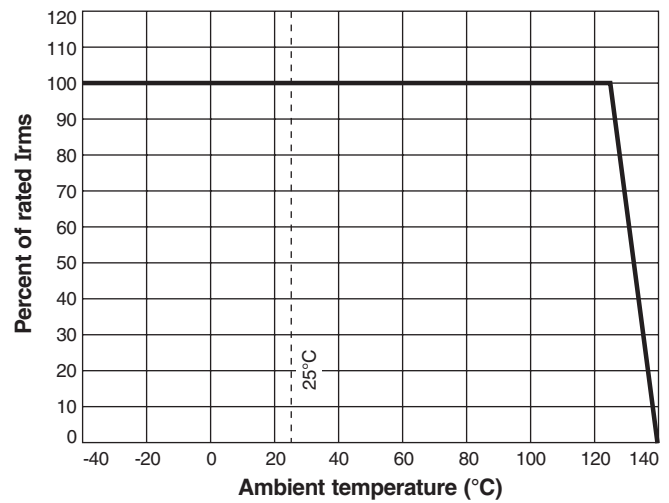
## Typical Q vs Frequency



## Typical Impedance vs Frequency



## Irms Derating



A	B	C	D	E	F	G	H	I	J
max	max	max							
0.071	0.047	0.037	0.010	0.030	0.011	0.038	0.040	0.025	0.025
1,80	1,19	0,94	0,25	0,76	0,28	0,97	1,02	0,64	0,64

**Note:** Height dimension (C) is before optional solder application. For maximum height dimension including solder, add 0.006 in / 0,152 mm.



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