



Chip Inductors - 0603LS Series (1608)

- Higher inductance values than other 0603 inductors
- Ferrite construction for high current handling
- Inductance values: 47 nH – 10 µH; 5% and 2% tolerance

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

Part number ¹	Inductance ² (nH)	Percent tolerance	Q min ³	SRF min ⁴ (MHz)	DCR max ⁵ (Ohms)	Irms ⁶ (A)	Color code
0603LS-47NX_L_	47 @ 7.9MHz	5,2	12 @ 7.9MHz	1500	0.075	1.40	Black
0603LS-72NX_L_	72 @ 7.9MHz	5,2	12 @ 7.9MHz	1400	0.12	1.40	Brown
0603LS-101X_L_	100 @ 7.9MHz	5,2	12 @ 7.9MHz	1150	0.13	1.40	Red
0603LS-121X_L_	120 @ 7.9MHz	5,2	12 @ 7.9MHz	1100	0.15	1.40	Orange
0603LS-151X_L_	150 @ 7.9MHz	5,2	15 @ 7.9MHz	1050	0.15	1.30	Yellow
0603LS-181X_L_	180 @ 7.9MHz	5,2	15 @ 7.9MHz	950	0.15	1.30	Green
0603LS-241X_L_	240 @ 7.9MHz	5,2	15 @ 7.9MHz	800	0.16	0.95	Violet
0603LS-271X_L_	270 @ 7.9MHz	5,2	15 @ 7.9MHz	775	0.30	0.71	Gray
0603LS-331X_L_	330 @ 7.9MHz	5,2	15 @ 7.9MHz	725	0.46	0.56	White
0603LS-391X_L_	390 @ 7.9MHz	5,2	15 @ 7.9MHz	620	0.51	0.50	Black
0603LS-471X_L_	470 @ 7.9MHz	5,2	15 @ 7.9MHz	540	0.62	0.42	Brown
0603LS-561X_L_	560 @ 7.9MHz	5,2	15 @ 7.9MHz	525	0.44	0.55	Red
0603LS-681X_L_	680 @ 7.9MHz	5,2	15 @ 7.9MHz	260	0.52	0.47	Orange
0603LS-781X_L_	780 @ 7.9MHz	5,2	15 @ 7.9MHz	460	0.83	0.39	Yellow
0603LS-821X_L_	820 @ 7.9MHz	5,2	15 @ 7.9MHz	410	0.69	0.40	Green
0603LS-102X_L_	1000 @ 7.9MHz	5,2	15 @ 7.9MHz	190	0.81	0.40	Blue
0603LS-122X_L_	1200 @ 7.9MHz	5,2	15 @ 7.9MHz	160	0.87	0.37	Violet
0603LS-152X_L_	1500 @ 7.9MHz	5,2	15 @ 7.9MHz	100	0.96	0.35	Gray
0603LS-182X_L_	1800 @ 7.9MHz	5,2	15 @ 7.9MHz	80	1.1	0.35	White
0603LS-222X_L_	2200 @ 7.9MHz	5,2	15 @ 7.9MHz	68	1.2	0.32	Black
0603LS-272X_L_	2700 @ 7.9MHz	5,2	15 @ 7.9MHz	60	1.5	0.28	Brown
0603LS-332X_L_	3300 @ 7.9MHz	5,2	15 @ 7.9MHz	42	1.5	0.28	Red
0603LS-392X_L_	3900 @ 7.9MHz	5,2	15 @ 7.9MHz	40	1.6	0.28	Orange
0603LS-472X_L_	4700 @ 7.9MHz	5,2	15 @ 7.9MHz	34	2.1	0.26	Yellow
0603LS-562X_L_	5600 @ 7.9MHz	5,2	15 @ 7.9MHz	32	2.6	0.24	Green
0603LS-682X_L_	6800 @ 7.9MHz	5,2	15 @ 7.9MHz	31	3.1	0.20	Black
0603LS-782X_L_	7800 @ 7.9MHz	5,2	15 @ 7.9MHz	28	3.5	0.20	Blue
0603LS-822X_L_	8200 @ 7.9MHz	5,2	15 @ 7.9MHz	26	3.6	0.19	Violet
0603LS-103X_L_	10,000 @ 2.5MHz	5,2	12 @ 2.5MHz	25	4.8	0.18	Gray

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

0603LS-822XJLC

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

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.

2. Inductance measured at 7.9 MHz, 0.1 Vrms, using Coilcraft SMD-A
fixture in Agilent/HP 4286A impedance analyzer with Coilcraft-provided
correlation pieces.

3. Q measured on Agilent/HP 4395A with Agilent/HP 16193 test fixture.

4. SRF measured using Agilent/HP 8753D network analyzer with Coilcraft
SMD-D test fixture.

5. DCR measured on Cambridge Technology Micro-ohmmeter.

6. Current that causes a 15°C temperature rise from 25°C ambient.
Because of their open construction, these parts will not saturate.

7. Electrical specifications at 25°C.

See Qualification Standards section for environmental and test data.

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

Designer's Kit C347 contains 10 each of all 5% values

Core material Ceramic/Ferrite

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

Weight 4.8 – 6.2 mg

Ambient temperature –40°C to +85°C with Irms current, +85°C to
+100°C with derated current

Storage temperature Component: –40°C to +100°C.
Packaging: –55°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)

Mean Time Between Failures (MTBF) 1 billion hours

Packaging 2000 per 7" reel. Plastic tape: 8 mm wide, 0.23 mm thick,
4 mm pocket spacing, 1.1 mm pocket depth

PCB washing Only pure water or alcohol recommended

Coilcraft®

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

Document 264-1 Revised 09/21/07

1102 Silver Lake Road Cary, Illinois 60013 Phone 847/639-6400 Fax 847/639-1469

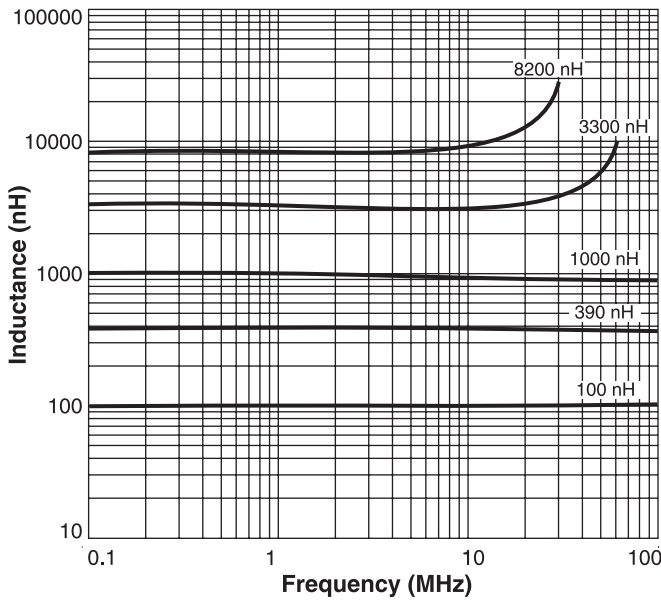
E-mail info@coilcraft.com Web <http://www.coilcraft.com>



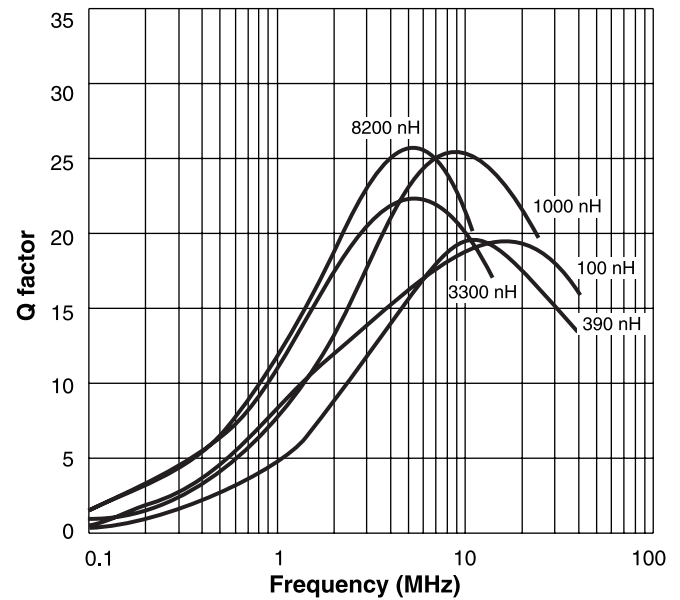
Chip Inductors – 0603LS Series

S-Parameter files
ON OUR WEB SITE OR CD
SPICE models
ON OUR WEB SITE OR CD

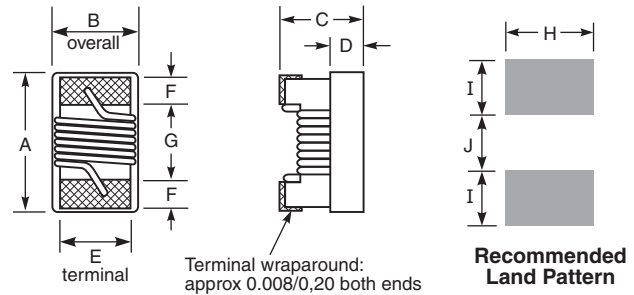
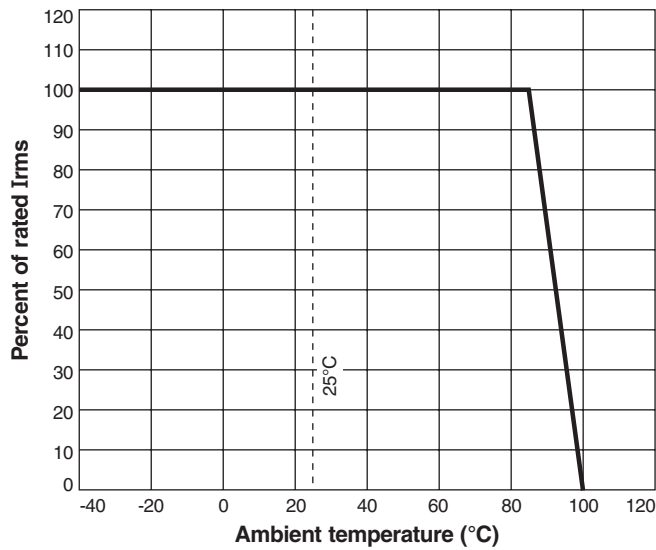
Typical L vs Frequency



Typical Q vs Frequency



Irms Derating



A	B	C	D	E	F	G	H	I	J
max	max	max	ref						
0,071	0,050	0,044	0,015	0,030	0,013	0,034	0,040	0,025	0,025
1,80	1,27	1,12	0,38	0,76	0,33	0,86	1,02	0,64	0,64



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

Document 264-2 Revised 09/21 /07

1102 Silver Lake Road Cary, Illinois 60013 Phone 847/639-6400 Fax 847/639-1469

E-mail info@coilcraft.com Web <http://www.coilcraft.com>