Chip Inductors – 0805LS (2012)

These ferrite core surface mount inductors have lower DCR and higher current ratings than our 0805CS Series. They come in inductance values from 0.078 to 27 µH.

Coilcraft **Designer's Kit C354** contains samples of all 5% inductance tolerance parts. To order, contact Coilcraft or visit **http://order.coilcraft.com** to purchase on-line.

Part number[1]	Inductance[2] (µH)	Percent tolerance	Q min[3]	SRF min[4] (MHz)	DCR max[5] (Ohms)	Irms[6] (A)	Color code
0805LS-78NX_L_	0.078 @ 7.9 MHz	**5,2**	19 @ 7.9 MHz	1440	0.042	2.0	Black
0805LS-111X_L_	0.110 @ 7.9 MHz	**5,2**	19 @ 7.9 MHz	1200	0.05	2.0	Brown
0805LS-471X_L_	0.470 @ 7.9 MHz	**5,2**	19 @ 7.9 MHz	500	0.31	0.720	Red
0805LS-681X_L_	0.680 @ 7.9 MHz	**5,2**	20 @ 7.9 MHz	400	0.46	0.590	Orange
0805LS-102X_L_	1.0 @ 7.9 MHz	**5,2**	20 @ 7.9 MHz	340	0.69	0.500	Yellow
0805LS-122X_L_	1.2 @ 7.9 MHz	**5,2**	15 @ 7.9 MHz	280	1.20	0.400	Brown
0805LS-152X_L_	1.5 @ 7.9 MHz	**5,2**	20 @ 7.9 MHz	275	1.03	0.490	Green
0805LS-182X_L_	1.8 @ 7.9 MHz	**5,2**	20 @ 7.9 MHz	246	1.15	0.410	Blue
0805LS-222X_L_	2.2 @ 7.9 MHz	**5,2**	20 @ 7.9 MHz	106	1.28	0.365	Brown
0805LS-272X_L_	2.7 @ 7.9 MHz	**5,2**	20 @ 7.9 MHz	105	1.48	0.350	Violet
0805LS-332X_L_	3.3 @ 7.9 MHz	**5,2**	20 @ 7.9 MHz	83	1.57	0.330	Gray
0805LS-392X_L_	3.9 @ 7.9 MHz	**5,2**	20 @ 7.9 MHz	52	1.70	0.300	White
0805LS-472X_L_	4.7 @ 7.9 MHz	**5,2**	20 @ 7.9 MHz	50	1.87	0.280	Black
0805LS-682X_L_	6.8 @ 7.9 MHz	**5,2**	20 @ 7.9 MHz	35	2.25	0.260	Brown
0805LS-822X_L_	8.2 @ 2.5 MHz	**5,2**	18 @ 2.5 MHz	27	2.55	0.250	Red
0805LS-103X_L_	10.0 @ 2.5 MHz	**5,2**	18 @ 2.5 MHz	21	3.45	0.200	Orange
0805LS-153X_L_	15.0 @ 2.5 MHz	**5,2**	18 @ 2.5 MHz	17	5.03	0.180	Yellow
0805LS-223X_L_	22.0 @ 2.5 MHz	**5,2**	18 @ 2.5 MHz	13	6.18	0.150	Green
0805LS-273X_L_	27.0 @ 2.5 MHz	**5,2**	15 @ 2.5 MHz	11	11.04	0.120	Blue

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

0805LS-273XJLC

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

Termination: **L** = RoHS compliant silver-palladium-platinum-glass frit.
E = Halogen free component. RoHS compliant silver-palladium-platinum-glass frit terminations.
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 using a Coilcraft SMD-A fixture in an Agilent/HP 4286A impedance analyzer with Coilcraft-provided correlation pieces.
3. Q measured on an Agilent/HP 4291A with an Agilent/HP 16193 test fixture.
4. SRF measured using an Agilent/HP 8753D network analyzer with a Coilcraft SMD-D test fixture.
5. DCR measured on a 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.

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

Core material Ceramic/Ferrite

Environmental RoHS compliant, halogen free optional

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

Weight 12.7 – 13.9 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. Tape and 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) +100 to +250 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 2000/7″reel; Plastic tape: 8 mm wide, 0.23 mm thick, 4 mm pocket spacing, 1.6 mm pocket depth

PCB washing Tested with pure water or alcohol only. For other solvents, see Doc787_PCB_Washing.pdf.

Coilcraft®
www.coilcraft.com

US +1-847-639-6400 sales@coilcraft.com
UK +44-1236-730595 sales@coilcraft-europe.com
Taiwan +886-2-2264 3646 sales@coilcraft.com.tw
China +86-21-6218 8074 sales@coilcraft.com.cn
Singapore + 65-6484 8412 sales@coilcraft.com.sg

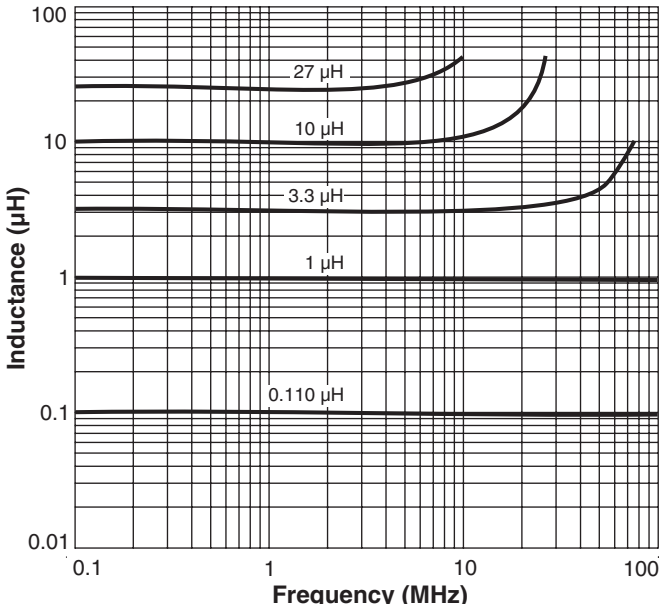
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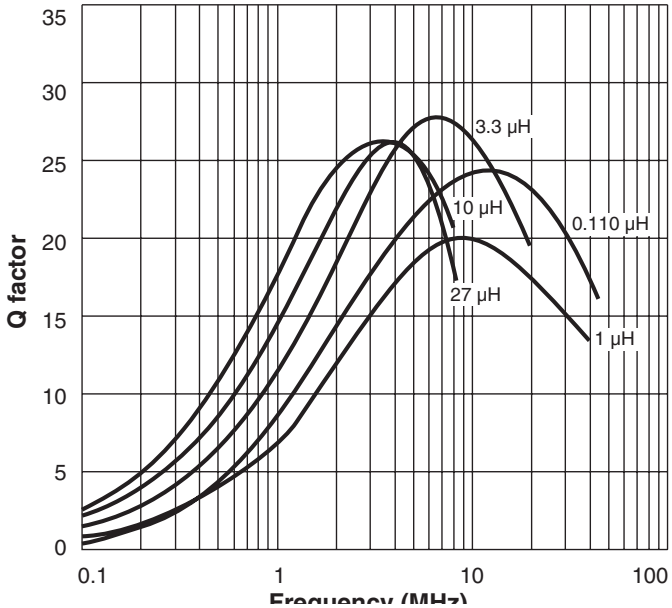
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0805LS Series Chip Inductors

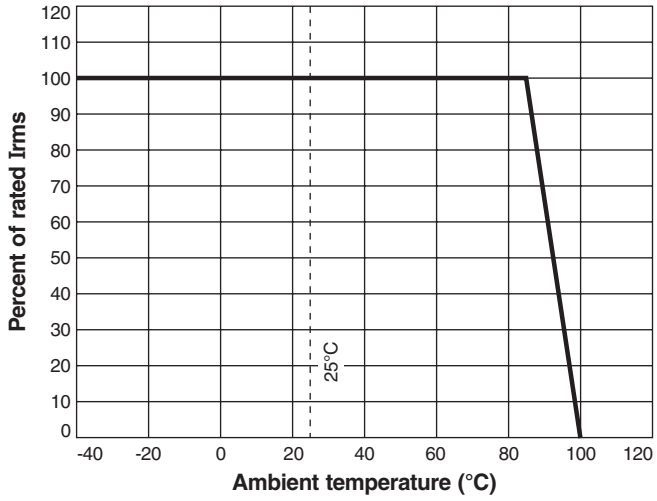
Typical L vs Frequency

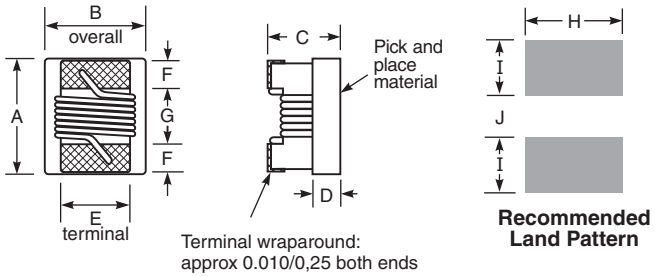


Typical Q vs Frequency



Irms Derating





A max	B max	C max	D ref	E	F	G	H	I	J	
0.090	0.075	0.063	0.020	0.050	0.020	0.040	0.070	0.040	0.030	inches
2,29	1,91	1,60	0,51	1,27	0,51	1,02	1,78	1,02	0,76	mm

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

Coilcraft
www.coilcraft.com

US +1-847-639-6400 sales@coilcraft.com
UK +44-1236-730595 sales@coilcraft-europe.com
Taiwan +886-2-2264 3646 sales@coilcraft.com.tw
China +86-21-6218 8074 sales@coilcraft.com.cn
Singapore + 65-6484 8412 sales@coilcraft.com.sg

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