Chip Inductors – 1812LS Series (4532)

- Highest inductance values of all our chip inductors
- Ferrite construction for high current handling
- Inductance values from 12 – 1000 µH

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

Part number[1]	Inductance[2] (µH)	Percent tolerance	Q typ[3]	Test freq (MHz)	SRF typ[4] (MHz)	DCR max[5] (Ohms)	Irms[6] (mA)
1812LS-123XJR_	12	**5**	42	2.5	85	2.0	310
1812LS-153XJR_	15	**5**	42	2.5	70	2.5	290
1812LS-183XJR_	18	**5**	45	2.5	52	2.8	270
1812LS-223XJR_	22	**5**	45	2.5	58	3.2	260
1812LS-273XJR_	27	**5**	45	2.5	46	3.6	240
1812LS-333XJR_	33	**5**	45	2.5	40	4.0	230
1812LS-393XJR_	39	**5**	45	2.5	30	4.5	210
1812LS-473XJR_	47	**5**	42	2.5	24	5.0	200
1812LS-563XJR_	56	**5**	42	2.5	20	5.5	190
1812LS-683XJR_	68	**5**	40	2.5	16	6.0	180
1812LS-823XJR_	82	**5**	40	2.5	13.5	7.0	170
1812LS-104XJR_	100	**5**	40	2.5	12.0	8.0	150
1812LS-124XJR_	120	**5**	33	0.79	14.5	11.5	135
1812LS-154XJR_	150	**5**	36	0.79	11.5	13.0	125
1812LS-184XJR_	180	**5**	36	0.79	9.3	14.2	120
1812LS-224XJR_	220	**5**	38	0.79	7.6	16.2	115
1812LS-274XJR_	270	**5**	38	0.79	8.3	20.5	105
1812LS-334XJR_	330	**5**	38	0.79	7.0	22.5	100
1812LS-394XJR_	390	**5**	38	0.79	5.2	24.5	90
1812LS-474XJR_	470	**5**	38	0.79	4.4	26.5	85
1812LS-564XJR_	560	**5**	33	0.79	2.8	28.5	75
1812LS-684XJR_	680	**5**	25	0.79	2.3	38.0	60
1812LS-824XJR_	820	**5**	25	0.79	2.1	41.0	55
1812LS-105XJR_	1000	**5**	30	0.79	1.9	44.0	50

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

1812LS-105XJRC

Termination: **R** = RoHS compliant matte tin over nickel over silver-platinum-glass frit.
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 (600 per full reel). Quantities less than full reel available: in tape (not machine ready) or with leader and trailer ($25 charge).
D = 13″ machine-ready reel. EIA-481 embossed plastic tape. Factory order only, not stocked (2200 per full reel).
B = Less than full reel. In an effort to simplify our part numbering system, Coilcraft is eliminating the need for multiple packaging codes. When ordering, simply change the last letter of your part number from B to C.

2. Inductance at 2.5 MHz measured using an Agilent/HP 4286A and a Coilcraft SMD-A fixture with Coilcraft-provided correlation pieces. Inductance at 0.79 MHz measured using an Agilent/HP 4192A and Coilcraft SMD-B test fixture.
3. Q read at test frequency directly on an Agilent/HP 4192A LF impedance analyzer and a Coilcraft SMD-B test fixture.
4. SRF measured using an Agilent/HP 8753D network analyzer and 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. This information is for reference only and does not represent absolute maximum ratings.
7. Electrical specifications at 25°C.

Refer to Doc 362 “Soldering Surface Mount Components” before soldering.
Visit http://www.coilcraft.com/colrcode.cfm for part marking data.

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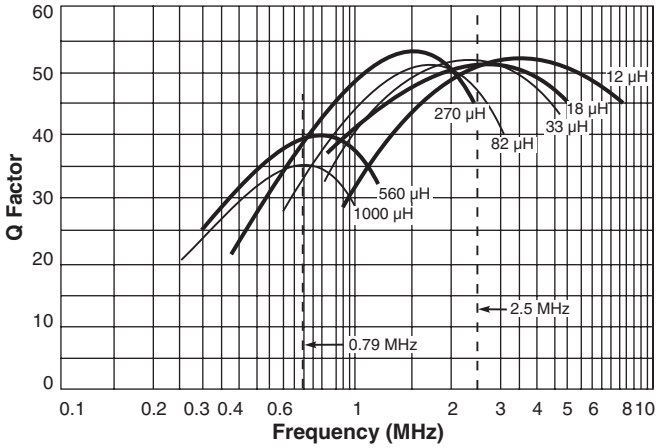
Document 106-1 Revised 08/08/22

S-Parameter files
ON OUR WEB SITE

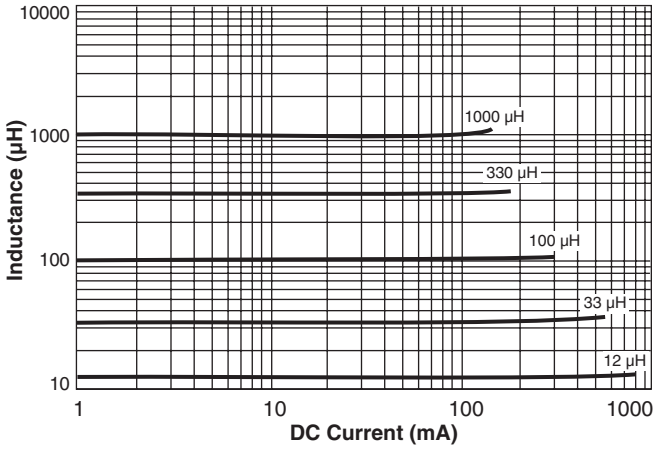
SPICE models
ON OUR WEB SITE

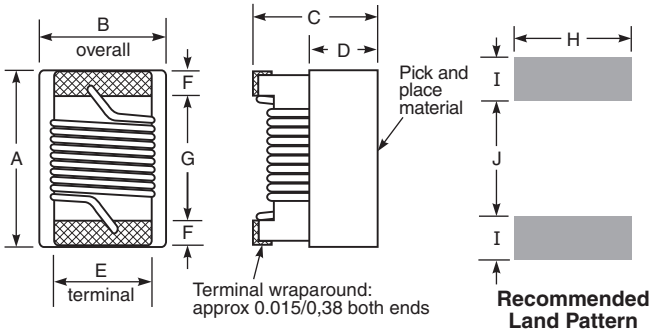
1812LS (4532) Chip Inductors

Typical Q vs Frequency



Typical L vs Current





A max	B max	C max	D ref	E	F	G	H	I	J	
0.195	0.150	0.135	0.070	0.100	0.025	0.128	0.120	0.045	0.118	inches
4,95	3,81	3,43	1,78	2,54	0,64	3,25	3,05	1,14	3,00	mm

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

Designer's Kit C314 contains 10 of each value

Core material Ferrite

Terminations RoHS compliant matte tin over nickel over silver platinum-glass frit. Other terminations available at additional cost.

Weight 142 – 171 mg

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

Maximum part temperature +100°C (ambient + temp rise)

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) +200 to +700 ppm/°C

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

Packaging 600/7″ reel; 2200/13″ reel. Plastic tape: 12 mm wide, 0.3 mm thick, 8 mm pocket spacing, 3.7 mm pocket depth

PCB washing Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See Doc787_PCB_Washing.pdf.

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