



Chip Inductors – 1812LS Series (4532)

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

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

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

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

1812LS-105XJLC

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 (600 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.

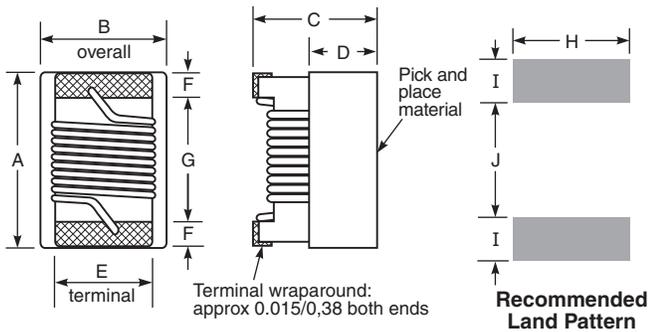
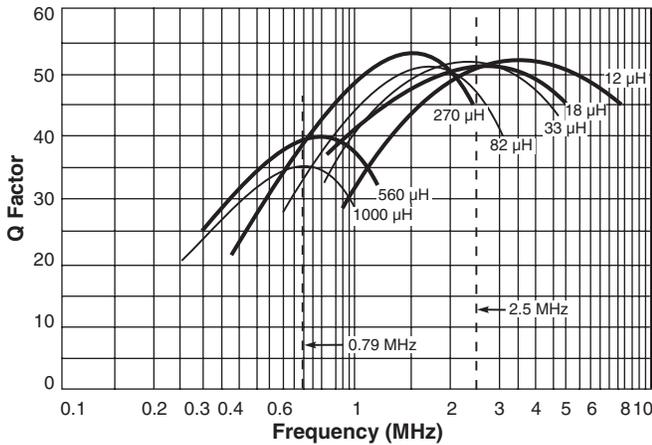
D = 13" machine-ready reel. EIA-481 embossed plastic tape. Factory order only, not stocked (2200 per full reel).

- 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.
- Q read at test frequency directly on an Agilent/HP 4192A LF impedance analyzer and a Coilcraft SMD-B test fixture.
- SRF measured using an Agilent/HP 8753D network analyzer and a Coilcraft SMD-D test fixture.
- DCR measured on a Cambridge Technology micro-ohmmeter.
- 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.
- 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.



1812LS (4532) Chip Inductors

Typical Q vs Frequency

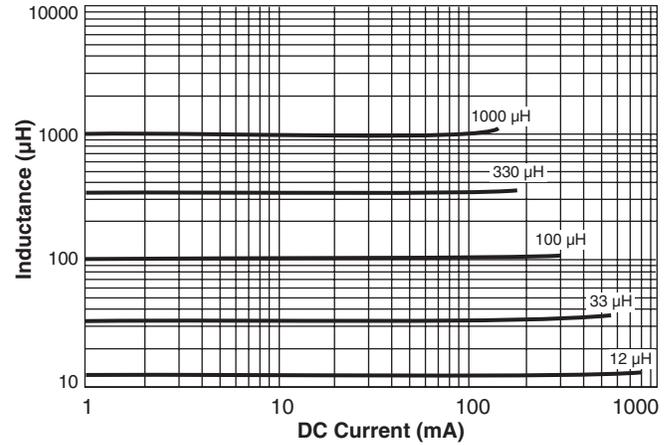


A	B	C	D	E	F	G	H	I	J
max	max	max	ref						
0.195	0.150	0.135	0.070	0.100	0.025	0.128	0.120	0.045	0.118
4,95	3,81	3,43	1,78	2,54	0,64	3,25	3,05	1,14	3,00

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

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

Typical L vs Current



Designer's Kit C314 contains 10 of each value

Core material Ferrite

Terminations RoHS compliant silver-palladium-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)

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

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

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](#).



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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