Chip Inductors – 1812LS Series (4532)

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

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

Part number[1]	Inductance[2] (µH)	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).

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. 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.
Visit http://www.coilcraft.com/colrcode.cfm for part marking data.

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ACCURATE REPEATABLE MEASUREMENTS
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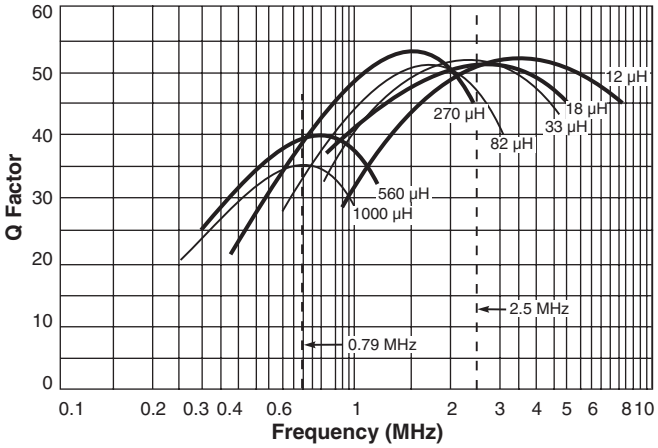
S-Parameter files
ON OUR WEB SITE

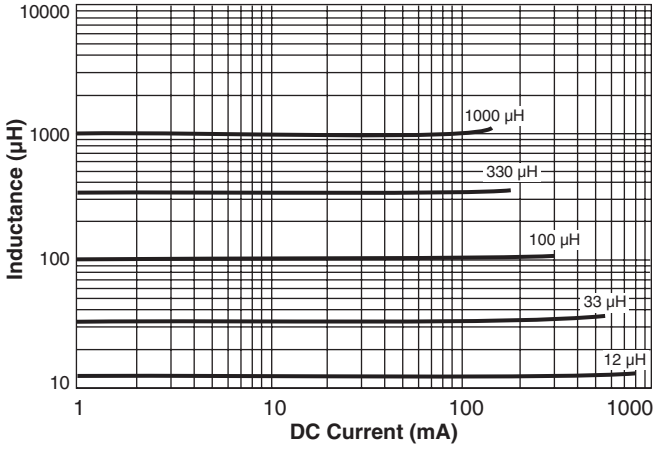
SPICE models
ON OUR WEB SITE

1812LS (4532) Chip Inductors

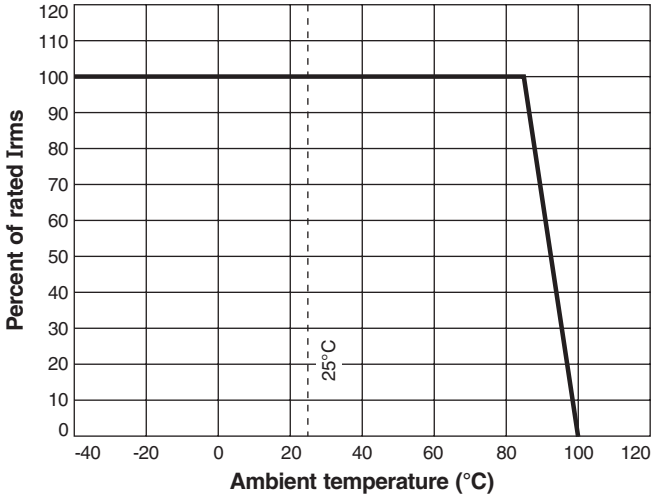
Typical Q vs Frequency



Typical L vs Current



Irms Derating



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, +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

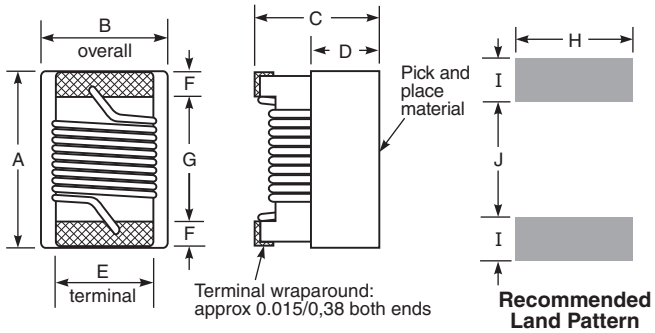
Temperature Coefficient of Inductance (TCL) +200 to +700 ppm/°C

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 Only pure water or alcohol recommended



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.

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