

Chip Inductors - 1812CS Series (4532)

Coilcraft 1812CS ceramic chip inductors are ideal for applications requiring mid-range inductance and close tolerances ($\pm 5\%$). Also, the SRFs of the parts

in this series are up to 3 times higher than those of commonly available 1812 chip inductors made on ferrite cores.

Part number ¹	Inductance ² (μH)	Percent tolerance ³	Q min ⁴	SRF min ⁵ (MHz)	DCR max ⁶ (Ohms)	Irms ⁷ (mA)
1812CS-102X_B_	1.0 @ 7.9 MHz	5	60 @ 50 MHz	310	1.2	480
1812CS-122X_B_	1.2 @ 7.9 MHz	5	62 @ 50 MHz	230	1.2	480
1812CS-152X_B_	1.5 @ 7.9 MHz	5,2	65 @ 50 MHz	210	1.6	430
1812CS-182X_B_	1.8 @ 7.9 MHz	5	68 @ 50 MHz	190	2.0	380
1812CS-222X_B_	2.2 @ 7.9 MHz	5	63 @ 50 MHz	170	2.2	340
1812CS-272X_B_	2.7 @ 7.9 MHz	5	63 @ 50 MHz	160	3.2	300
1812CS-332X_B_	3.3 @ 7.9 MHz	5	65 @ 50 MHz	145	3.8	270
1812CS-392X_B_	3.9 @ 7.9 MHz	5,2	69 @ 50 MHz	130	5.0	240
1812CS-472X_B_	4.7 @ 7.9 MHz	5	63 @ 50 MHz	115	5.4	230
1812CS-562X_B_	5.6 @ 7.9 MHz	5	59 @ 50 MHz	100	5.7	220
1812CS-682X_B_	6.8 @ 7.9 MHz	5	60 @ 50 MHz	90	6.6	210
1812CS-822X_B_	8.2 @ 7.9 MHz	5	47 @ 50 MHz	80	7.0	200
1812CS-103X_B_	10.0 @ 7.9 MHz	5	36 @ 50 MHz	70	7.7	190
1812CS-123X_B_	12.0 @ 2.5 MHz	5	35 @ 10 MHz	60	8.7	180
1812CS-153X_B_	15.0 @ 2.5 MHz	5	34 @ 10 MHz	50	9.6	170
1812CS-183X_B_	18.0 @ 2.5 MHz	5	30 @ 10 MHz	45	10.5	160
1812CS-223X_B_	22.0 @ 2.5 MHz	5,2	32 @ 10 MHz	40	11.5	155
1812CS-273X_B_	27.0 @ 2.5 MHz	5	29 @ 10 MHz	30	12.5	150
1812CS-333X_B_	33.0 @ 2.5 MHz	5,2	20 @ 10 MHz	20	13.5	145

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

1812CS-333X **G B C**

Tolerance: G = 2% J = 5%

(Table shows stock tolerances in bold.)

Packaging: C = 7" machine-ready reel. EIA-481 embossed plastic tape (600 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.

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

2. Inductance measured using a Coilcraft SMD-A fixture in an Agilent/HP 4286A impedance analyzer with Coilcraft-provided correlation pieces.

3. Tolerances in bold are stocked for immediate shipment.

4. Q measured using an Agilent/HP 4291A with an Agilent/HP 16193 test fixture.

5. SRF measured using an Agilent/HP 8753D network analyzer and a Coilcraft SMD-D test fixture.

6. DCR measured on a Cambridge Technology micro-ohmmeter and a Coilcraft CCF859 test fixture.

7. Average current for a 15°C rise above 25°C ambient.

8. Operating temperature range -40°C to +125°C.

9. Electrical specifications at 25°C.

See Qualification Standards section for environmental and test data.

For part marking data see Color Coding section.

COILCRAFT ACCURATE
PRECISION REPEATABLE
MEASUREMENTS
SEE INDEX **TEST FIXTURES**

Coilcraft[®]

Specifications subject to change without notice.

Please check our website for latest information.

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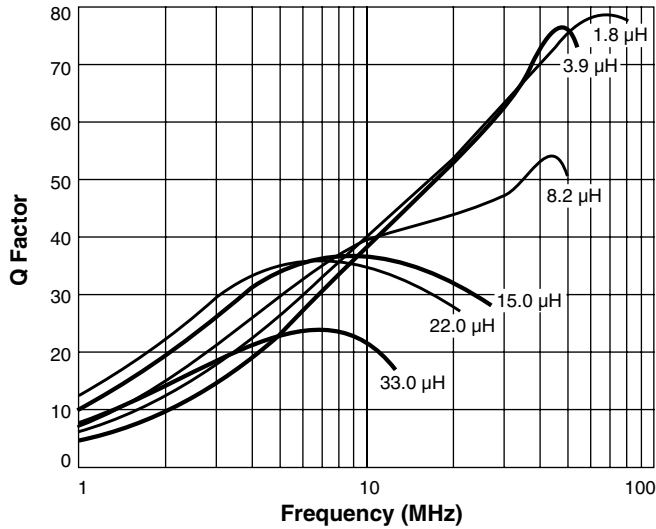
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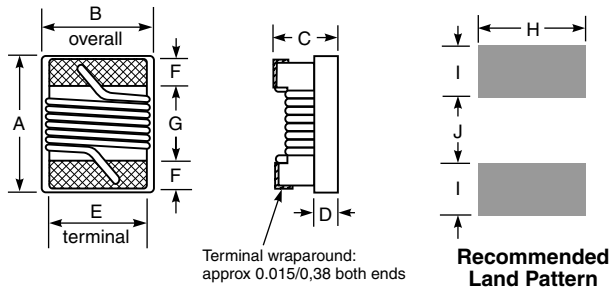
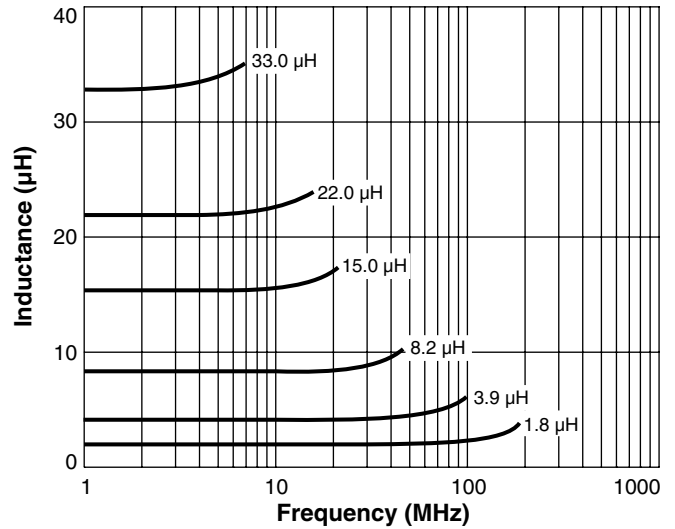
S-Parameter files
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Chip Inductors - 1812CS Series (4532)

Typical Q vs Frequency



Typical L vs Frequency



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
4,95	3,81	3,43	1,78	2,54	0,64	3,25	3,05	1,14	3,00

Weight: 109 – 128 mg
Terminations: Silver-palladium-platinum
Tape and reel: 600/7" reel; 2200/13" reel 12 mm tape width
 For packaging data see Tape and Reel Specifications section.



Specifications subject to change without notice.
 Please check our website for latest information. Document 105-2 Revised 12/28/04

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