RoHS/ REACH COMPLIANT

Wirewound Ferrite Beads 1812LS (4532)

- Higher performance than other surface mount ferrite beads in the market
- High impedance across a wide bandwidth
- Extremely low DCR for high current applications
- Ferrite construction and heavy gauge wire for high current handling
- Eliminates high frequency noise in power supplies or RF signal isolation applications

Part number[1]	Inductance[2] ±5% (µH)	Impedance typ (Ohms) 1 MHz	10 MHz	SRF typ[3] (MHz)	DCR max[4] (Ohms)	Irms[5] (mA)
1812LS-123XJR_	12 @ 2.5 MHz	77.85	770.7	85	2.0	310
1812LS-153XJR_	15 @ 2.5 MHz	97.79	969.6	70	2.5	290
1812LS-183XJR_	18 @ 2.5 MHz	118.2	1201	52	2.8	270
1812LS-223XJR_	22 @ 2.5 MHz	140.2	1405	58	3.2	260
1812LS-273XJR_	27 @ 2.5 MHz	177.1	1826	46	3.6	240
1812LS-333XJR_	33 @ 2.5 MHz	211.5	2185	40	4.0	230
1812LS-393XJR_	39 @ 2.5 MHz	254.6	2729	30	4.5	210
1812LS-473XJR_	47 @ 2.5 MHz	301.1	3705	24	5.0	200
1812LS-563XJR_	56 @ 2.5 MHz	361.3	4917	20	5.5	190
1812LS-683XJR_	68 @ 2.5 MHz	422.5	7392	16	6.0	180
1812LS-823XJR_	82 @ 2.5 MHz	512.0	11,227	13.5	7.0	170
1812LS-104XJR_	100 @ 2.5 MHz	619.3	19,090	12.0	8.0	150
1812LS-124XJR_	120 @ 0.79 MHz	757.4	13,752	14.5	11.5	135
1812LS-154XJR_	150 @ 0.79 MHz	978.9	37,311	11.5	13.0	125
1812LS-184XJR_	180 @ 0.79 MHz	1175	191,219	9.3	14.2	120
1812LS-224XJR_	220 @ 0.79 MHz	1427	22,919	7.6	16.2	115
1812LS-274XJR_	270 @ 0.79 MHz	1742	29,599	8.3	20.5	105
1812LS-334XJR_	330 @ 0.79 MHz	2169	18,825	7.0	22.5	100
1812LS-394XJR_	390 @ 0.79 MHz	2558	8911	5.2	24.5	90
1812LS-474XJR_	470 @ 0.79 MHz	3125	8087	4.4	26.5	85
1812LS-564XJR_	560 @ 0.79 MHz	3858	2196	2.8	28.5	75
1812LS-684XJR_	680 @ 0.79 MHz	4599	3257	2.3	38.0	60
1812LS-824XJR_	820 @ 0.79 MHz	6156	1747	2.1	41.0	55
1812LS-105XJR_	1000 @ 0.79 MHz	7167	2265	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. SRF measured using an Agilent/HP 8753D network analyzer and a Coilcraft SMD-D test fixture.
4. DCR measured on a Cambridge Technology micro-ohmmeter.
5. 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.
6. 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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Please check web site for latest information.

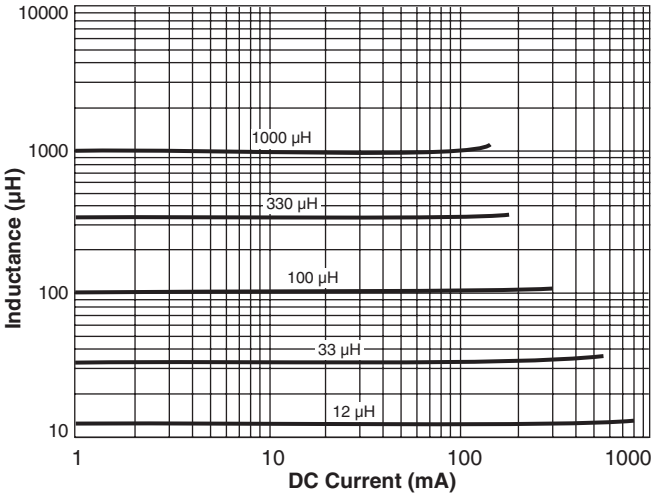
RoHS/ REACH COMPLIANT

S-Parameter files
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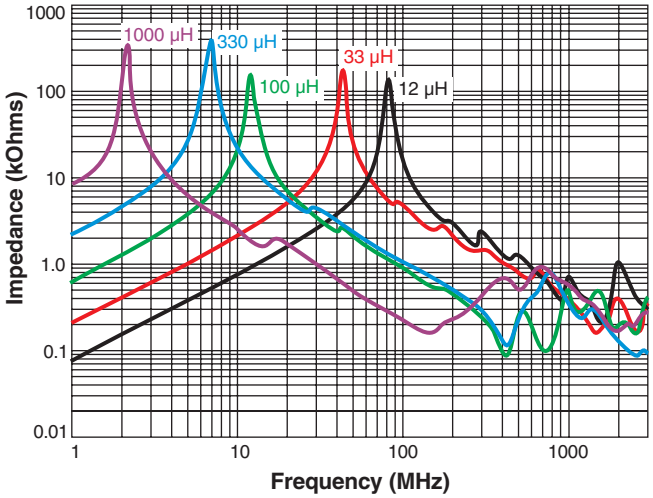
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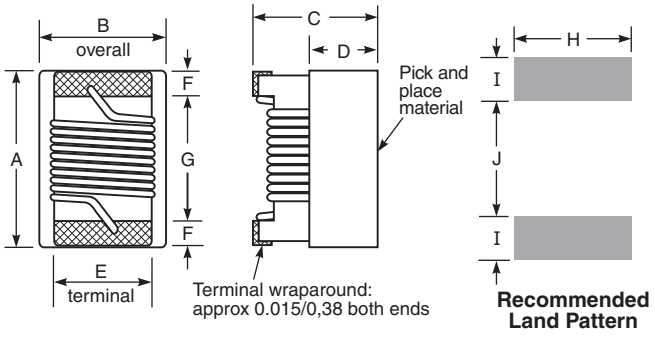
1812LS Wirewound Ferrite Beads

Typical L vs Current



Typical Impedance 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	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.

COILCRAFT PRECISION TEST FIXTURES
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