



Chip Inductors – 1008LS (2520)

- Lower DCR than other 1008 inductors
- Ferrite construction for high current handling
- Inductance values: 1.0 – 100 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	SRF min ⁴ (MHz)	DCR max ⁵ (Ohms)	Irms ⁶ (mA)
1008LS-102XJL_	1.0 @ 7.9 MHz	5	48 @ 50 MHz	230	0.62	700
1008LS-122XJL_	1.2 @ 7.9 MHz	5	37 @ 50 MHz	210	0.68	650
1008LS-152XJL_	1.5 @ 7.9 MHz	5	37 @ 50 MHz	190	0.76	630
1008LS-182XJL_	1.8 @ 7.9 MHz	5	37 @ 50 MHz	170	0.84	600
1008LS-222XJL_	2.2 @ 7.9 MHz	5	37 @ 50 MHz	150	1.10	520
1008LS-272XJL_	2.7 @ 7.9 MHz	5	37 @ 50 MHz	135	1.28	490
1008LS-332XJL_	3.3 @ 7.9 MHz	5	37 @ 50 MHz	120	1.46	450
1008LS-392XJL_	3.9 @ 7.9 MHz	5	37 @ 7.9 MHz	105	1.56	420
1008LS-432XJL_	4.3 @ 7.9 MHz	5	30 @ 7.9 MHz	85	1.70	400
1008LS-472XJL_	4.7 @ 7.9 MHz	5	32 @ 7.9 MHz	90	1.68	400
1008LS-502XJL_	5.0 @ 7.9 MHz	5	25 @ 7.9 MHz	30	2.20	360
1008LS-562XJL_	5.6 @ 7.9 MHz	5	37 @ 7.9 MHz	80	1.82	380
1008LS-622XJL_	6.2 @ 7.9 MHz	5	32 @ 7.9 MHz	75	2.50	330
1008LS-682XJL_	6.8 @ 7.9 MHz	5	37 @ 7.9 MHz	70	2.00	360
1008LS-822XJL_	8.2 @ 7.9 MHz	5	37 @ 7.9 MHz	65	2.65	330
1008LS-912XJL_	9.1 @ 7.9 MHz	5	37 @ 7.9 MHz	57	2.90	310
1008LS-103XJL_	10 @ 7.9 MHz	5	37 @ 7.9 MHz	60	2.95	300
1008LS-123XJL_	12 @ 2.5 MHz	5	28 @ 2.5 MHz	38	3.30	290
1008LS-153XJL_	15 @ 2.5 MHz	5	34 @ 2.5 MHz	30	3.70	280
1008LS-183XJL_	18 @ 2.5 MHz	5	28 @ 2.5 MHz	26	4.00	160
1008LS-223XJL_	22 @ 2.5 MHz	5	20 @ 2.5 MHz	22	6.14	270
1008LS-273XJL_	27 @ 2.5 MHz	5	24 @ 2.5 MHz	12	6.45	210
1008LS-333XJL_	33 @ 2.5 MHz	5	22 @ 2.5 MHz	19	7.00	200
1008LS-393XJL_	39 @ 2.5 MHz	5	33 @ 2.5 MHz	26	10.0	170
1008LS-473XJL_	47 @ 2.5 MHz	5	20 @ 2.5 MHz	12	10.7	160
1008LS-563XJL_	56 @ 2.5 MHz	5	20 @ 2.5 MHz	8.0	10.0	170
1008LS-683XJL_	68 @ 0.79 MHz	5	14 @ 0.79 MHz	5.7	13.5	145
1008LS-104XJL_	100 @ 0.79 MHz	5	13 @ 0.79 MHz	4.5	20.5	120

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

1008LS-103XJLC

Termination: L = RoHS compliant silver-palladium-platinum-glass frit.

E = Halogen free component. RoHS compliant silver-palladium-platinum-glass frit terminations.
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 (2000 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 (7500 parts per full reel).

- Inductance measured using a Coilcraft SMD-A fixture in an Agilent/HP 4286A impedance analyzer with Coilcraft-provided correlation pieces.
- Q measured using an Agilent/HP 4291A with an Agilent/HP 16193 test fixture.
- SRF measured using an Agilent/HP 8753D network analyzer with a Coilcraft SMD-D fixture.
- DCR measured on a Cambridge Technology Micro-ohmmeter.
- Current that causes a 15°C temperature rise from 25°C. Because of their open construction, these parts will not saturate.
- Electrical specifications at 25°C.

Refer to Doc 362 "Soldering Surface Mount Components" before soldering. For part marking data visit <http://www.coilcraft.com/colcode.cfm>.

Designer's Kit C336 contains 10 of each stocked value

Core material Ceramic/Ferrite

Environmental RoHS compliant, halogen free optional

Terminations RoHS compliant silver-palladium-platinum-glass frit. Other terminations available at additional cost.

Weight 38.3 – 41.0 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) +100 to +350 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 2000/7" reel; 7500/13" reel. Plastic tape: 8 mm wide, 0.3 mm thick, 4 mm pocket spacing, 2.0 mm pocket depth

PCB washing Only pure water or alcohol recommended



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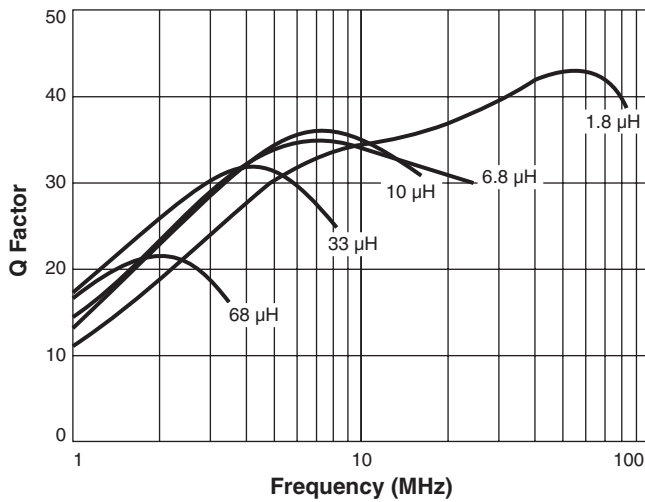
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This product may not be used in medical or high risk applications without prior Coilcraft approval. Specification subject to change without notice. Please check web site for latest information.



1008LS Series (2520)

Typical Q vs Frequency



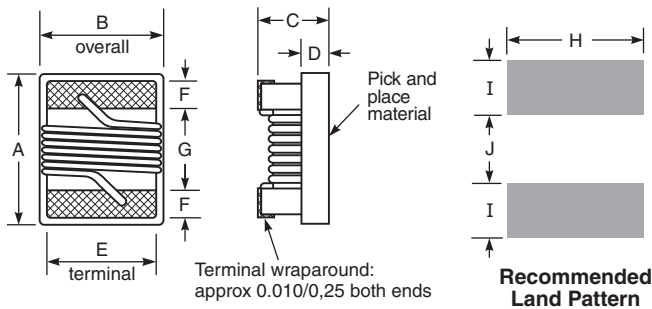
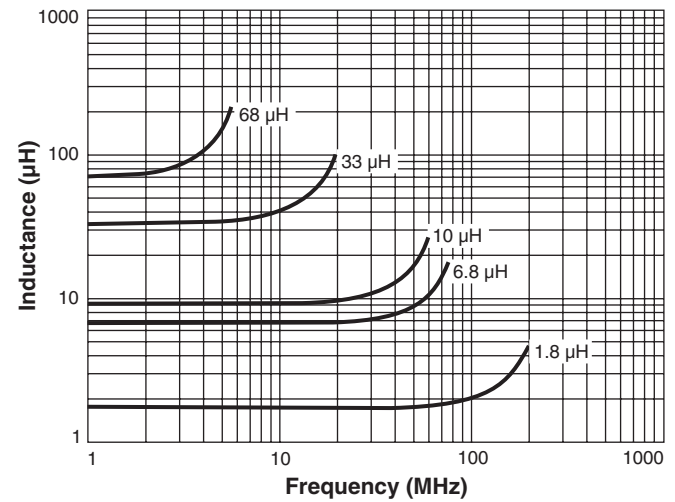
S-Parameter files

ON OUR WEB SITE

SPICE models

ON OUR WEB SITE

Typical L vs Frequency



A	B	C	D	E	F	G	H	I	J	
max	max	max	ref							
0.115	0.110	0.080	0.020	0.080	0.020	0.060	0.100	0.040	0.050	inches
2,92	2,79	2,03	0,51	2,03	0,51	1,52	2,54	1,02	1,27	mm

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

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