Chip Inductors – 1008LS Series (2520)

- Lower DCR than other 1008 inductors
- Ferrite construction for high current handling
- Inductance values: 1.0 – 100 µH

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

Part number[1]	Inductance[2] (µH)	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-103XJ L C

Termination: **L** = RoHS compliant silver-palladium-platinum-glass frit Special order, added cost: **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).

2. Inductance measured using a Coilcraft SMD-A fixture in an Agilent/ HP 4286A impedance analyzer with Coilcraft-provided correlation pieces.
3. Q measured using an Agilent/HP 4291A with an Agilent/HP 16193 test fixture.
4. SRF measured using an Agilent/HP 8753D network analyzer with a Coilcraft SMD-D fixture.
5. DCR measured on a Cambridge Technology Micro-ohmmeter.
6. Current that causes a 15°C temperature rise from 25°C. 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.
For part marking data see Color Coding section.

Designer’s Kit C336 contains 10 of each stocked value

Core material Ceramic/Ferrite

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. 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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Specifications subject to change without notice.
Please check our website for latest information. Document 103-1 Revised 12/14/09

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S-Parameter files
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SPICE models
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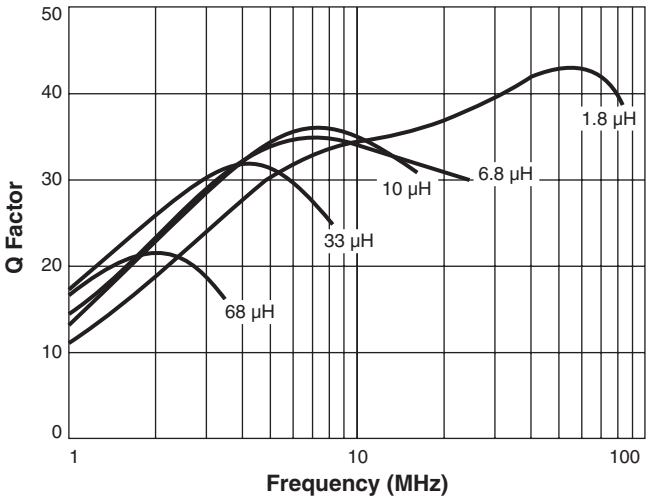
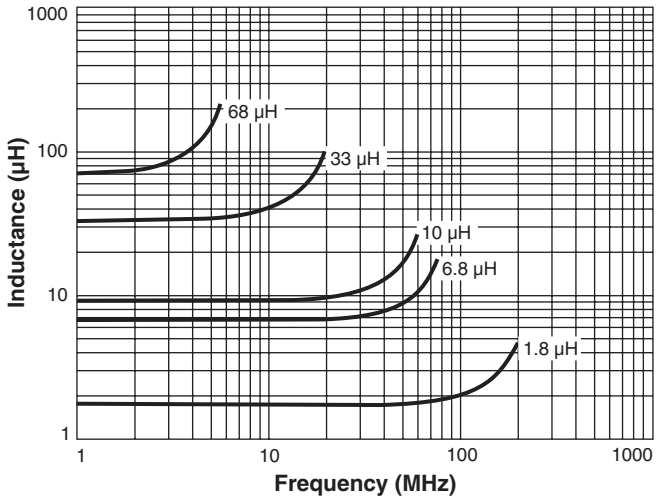
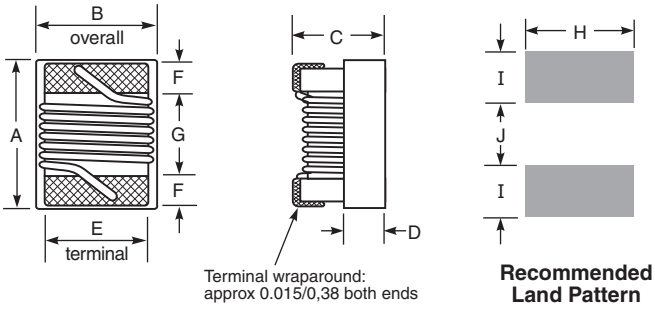
1008LS Series (2520)

Typical Q vs Frequency



Typical L vs Frequency





A max	B max	C max	D ref	E	F	G	H	I	J	
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

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