Chip Inductors – 1008LS (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)	Color code[7]
1008LS-102XJL_	1.0 @ 7.9 MHz	5	48 @ 50 MHz	230	0.62	700	Black
1008LS-122XJL_	1.2 @ 7.9 MHz	5	37 @ 50 MHz	210	0.68	650	Red
1008LS-152XJL_	1.5 @ 7.9 MHz	5	37 @ 50 MHz	190	0.76	630	Green
1008LS-182XJL_	1.8 @ 7.9 MHz	5	37 @ 50 MHz	170	0.84	600	Gray
1008LS-222XJL_	2.2 @ 7.9 MHz	5	37 @ 50 MHz	150	1.10	520	Red
1008LS-272XJL_	2.7 @ 7.9 MHz	5	37 @ 50 MHz	135	1.28	490	Violet
1008LS-332XJL_	3.3 @ 7.9 MHz	5	37 @ 50 MHz	120	1.46	450	Orange
1008LS-392XJL_	3.9 @ 7.9 MHz	5	37 @ 7.9 MHz	105	1.56	420	White
1008LS-432XJL_	4.3 @ 7.9 MHz	5	30 @ 7.9 MHz	85	1.70	400	Orange
1008LS-472XJL_	4.7 @ 7.9 MHz	5	32 @ 7.9 MHz	90	1.68	400	Violet
1008LS-502XJL_	5.0 @ 7.9 MHz	5	25 @ 7.9 MHz	30	2.20	360	Black
1008LS-562XJL_	5.6 @ 7.9 MHz	5	37 @ 7.9 MHz	80	1.82	380	Blue
1008LS-622XJL_	6.2 @ 7.9 MHz	5	32 @ 7.9 MHz	75	2.50	330	Red
1008LS-682XJL_	6.8 @ 7.9 MHz	5	37 @ 7.9 MHz	70	2.00	360	Gray
1008LS-822XJL_	8.2 @ 7.9 MHz	5	37 @ 7.9 MHz	65	2.65	330	Red
1008LS-912XJL_	9.1 @ 7.9 MHz	5	37 @ 7.9 MHz	57	2.90	310	Brown
1008LS-103XJL_	10 @ 7.9 MHz	5	37 @ 7.9 MHz	60	2.95	300	Black
1008LS-123XJL_	12 @ 2.5 MHz	5	28 @ 2.5 MHz	38	3.30	290	Red
1008LS-153XJL_	15 @ 2.5 MHz	5	34 @ 2.5 MHz	30	3.70	280	Green
1008LS-183XJL_	18 @ 2.5 MHz	5	28 @ 2.5 MHz	26	4.00	160	Gray
1008LS-223XJL_	22 @ 2.5 MHz	5	20 @ 2.5 MHz	22	6.14	270	Red
1008LS-273XJL_	27 @ 2.5 MHz	5	24 @ 2.5 MHz	12	6.45	210	Violet
1008LS-333XJL_	33 @ 2.5 MHz	5	22 @ 2.5 MHz	19	7.00	200	Orange
1008LS-393XJL_	39 @ 2.5 MHz	5	33 @ 2.5 MHz	26	10.0	170	White
1008LS-473XJL_	47 @ 2.5 MHz	5	20 @ 2.5 MHz	12	10.7	160	Violet
1008LS-563XJL_	56 @ 2.5 MHz	5	20 @ 2.5 MHz	8.0	10.0	170	Blue
1008LS-683XJL_	68 @ 0.79 MHz	5	14 @ 0.79 MHz	5.7	13.5	145	Gray
1008LS-104XJL_	100 @ 0.79 MHz	5	13 @ 0.79 MHz	4.5	20.5	120	Black

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).
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. Current production parts are marked with one dot. Prior production parts were marked with three dots. Part marking does not indicate polarity.
8. Electrical specifications at 25°C.

Refer to Doc 362 “Soldering Surface Mount Components” before soldering.

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 Plastic tape: 8 mm wide, 0.3 mm thick, 4 mm pocket spacing, 2.0 mm pocket depth

PCB washing Tested with pure water or alcohol only. For other solvents, see Doc787_PCB_Washing.pdf

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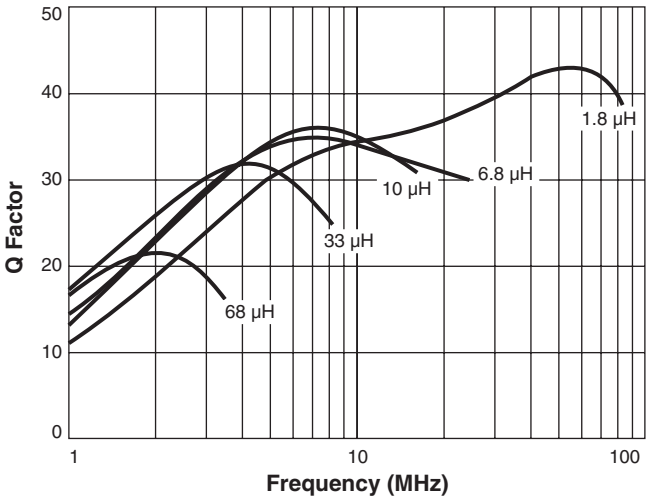
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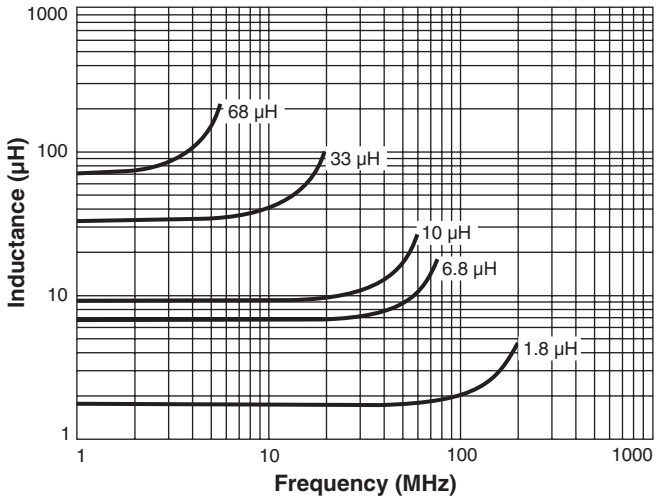
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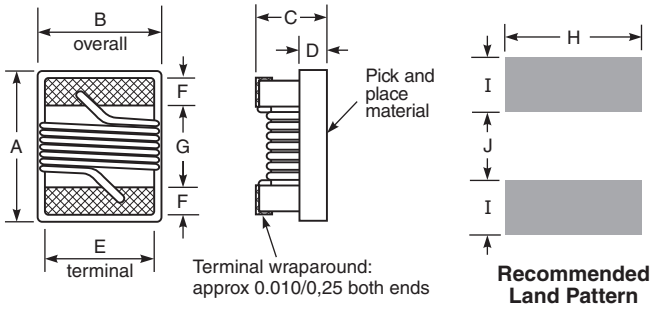
1008LS Series (2520)

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

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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