



# Chip Inductors – 1008LS Series (2520)

- Lower DCR than other 1008 inductors
- Ferrite construction for high current handling
- Inductance values: 1.0 – 10  $\mu$ H

Request free evaluation samples by contacting Coilcraft or visiting [www.coilcraft.com](http://www.coilcraft.com).

Part number <sup>1</sup>	Inductance <sup>2</sup> ( $\mu$ H)	Percent tolerance	Q min <sup>3</sup>	SRF min <sup>4</sup> (MHz)	DCR max <sup>5</sup> (Ohms)	Irms <sup>6</sup> (mA)
1008LS-102XJL_	1.0	<b>5</b>	48 @ 50 MHz	230	0.62	700
1008LS-122XJL_	1.2	<b>5</b>	48 @ 50 MHz	210	0.68	650
1008LS-152XJL_	1.5	<b>5</b>	41 @ 50 MHz	190	0.76	630
1008LS-182XJL_	1.8	<b>5</b>	39 @ 50 MHz	170	0.84	600
1008LS-222XJL_	2.2	<b>5</b>	34 @ 50 MHz	150	1.10	520
1008LS-272XJL_	2.7	<b>5</b>	34 @ 50 MHz	135	1.28	490
1008LS-332XJL_	3.3	<b>5</b>	32 @ 50 MHz	120	1.46	450
1008LS-392XJL_	3.9	<b>5</b>	32 @ 7.9 MHz	105	1.56	420
1008LS-472XJL_	4.7	<b>5</b>	31 @ 7.9 MHz	90	1.68	400
1008LS-562XJL_	5.6	<b>5</b>	31 @ 7.9 MHz	80	1.82	380
1008LS-682XJL_	6.8	<b>5</b>	31 @ 7.9 MHz	70	2.00	360
1008LS-822XJL_	8.2	<b>5</b>	23 @ 7.9 MHz	65	2.65	330
1008LS-103XJL_	10	<b>5</b>	31 @ 7.9 MHz	60	2.95	300

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

**1008LS-103XJL C**

**Termination:** 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 (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 at 7.9 MHz using 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 ambient. Because of their open construction, these parts will not saturate.
- Electrical specifications at 25°C.

See Qualification Standards section for environmental and test data.

For part marking data see Color Coding section.

Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

**Designer's Kit C336** contains 10 of each 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: –55°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)

**Mean Time Between Failures (MTBF)** 1 billion hours

**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

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

**Coilcraft**<sup>®</sup>

Specifications subject to change without notice.  
Please check our website for latest information.

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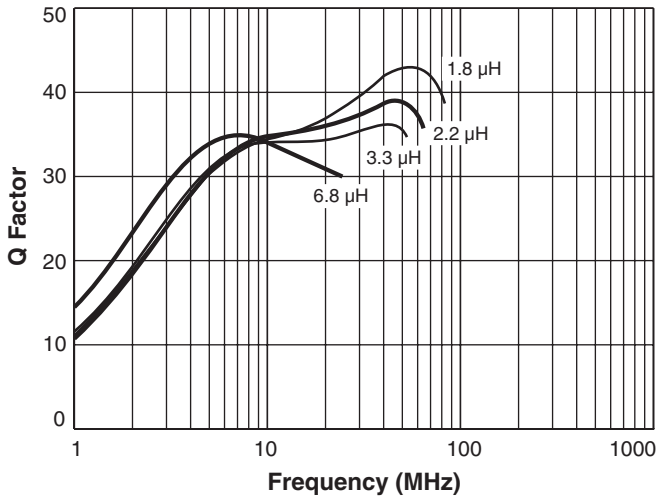
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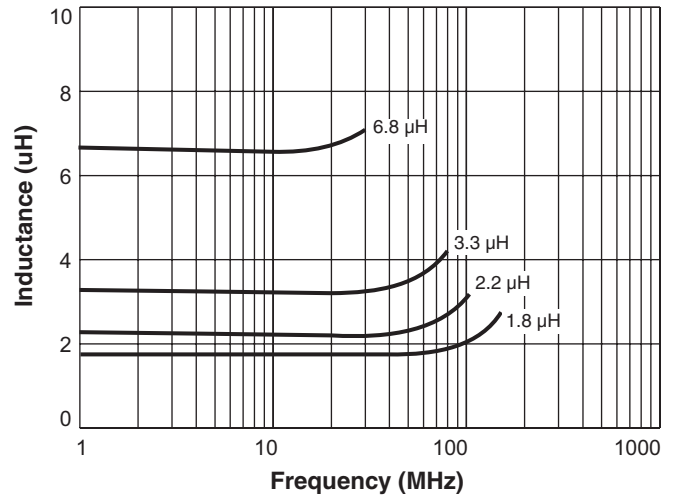
# 1008LS Series (2520)

## Typical Q vs Frequency

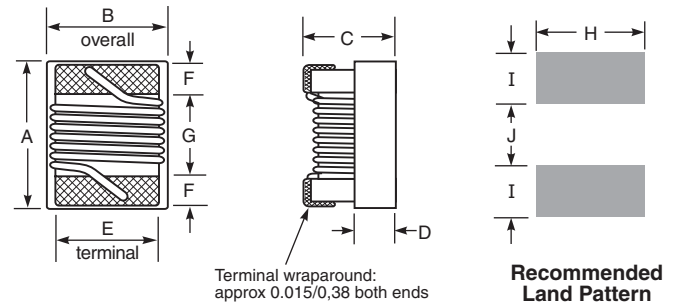
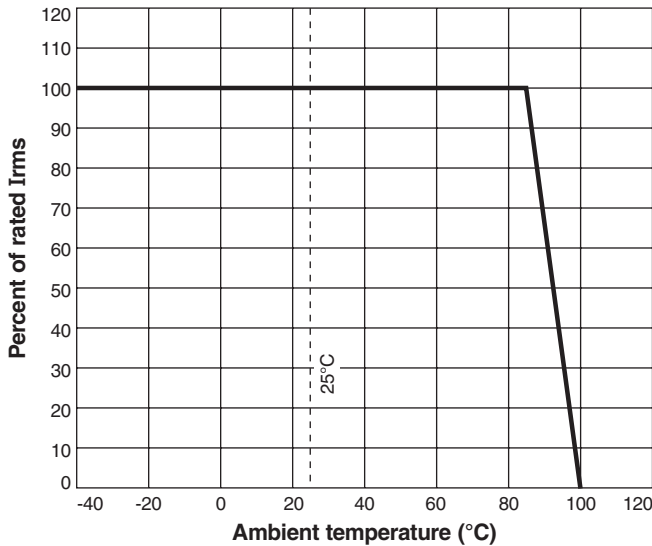


**S-Parameter files**  
ON OUR WEB SITE OR CD  
**SPICE models**  
ON OUR WEB SITE OR CD

## Typical L vs Frequency



## Irms Derating



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
2,92	2,79	2,03	0,51	2,03	0,51	1,52	2,54	1,02	1,27



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