



# Chip Inductors – 1008CT Series (2520)

The 0.055" profile makes these parts ideal for low clearance applications. Their simple construction ensures high reliability and stability, and they feature much

higher SRF values than ferrite alternatives. For free evaluation samples, visit [www.coilcraft.com](http://www.coilcraft.com) or contact Coilcraft.

Part number <sup>1</sup>	Inductance <sup>2</sup> (nH)	Percent <sup>3</sup> tolerance	Q min <sup>4</sup>	SRF min <sup>5</sup> (MHz)	DCR max <sup>6</sup> (Ohms)	Irms <sup>7</sup> (mA)
1008CT-040X_L_	4.7 @ 50 MHz	<b>5</b>	28 @ 500 MHz	7500	0.15	600
1008CT-080X_L_	8.2 @ 50 MHz	<b>5,2</b>	40 @ 500 MHz	5000	0.22	600
1008CT-100X_L_	10 @ 50 MHz	<b>5</b>	40 @ 500 MHz	2700	0.25	600
1008CT-150X_L_	15 @ 50 MHz	<b>5,2</b>	40 @ 500 MHz	3000	0.22	600
1008CT-200X_L_	20 @ 50 MHz	<b>5,2</b>	50 @ 500 MHz	2400	0.33	600
1008CT-300X_L_	30 @ 50 MHz	<b>5,2</b>	50 @ 500 MHz	2400	0.38	600
1008CT-400X_L_	40 @ 50 MHz	<b>5,2</b>	60 @ 500 MHz	2000	0.43	600
1008CT-500X_L_	50 @ 50 MHz	<b>5,2</b>	60 @ 500 MHz	1900	0.48	600
1008CT-600X_L_	60 @ 50 MHz	<b>5,2,1</b>	60 @ 500 MHz	1800	0.52	600
1008CT-700X_L_	70 @ 50 MHz	<b>5,2,1</b>	60 @ 500 MHz	1700	0.55	510
1008CT-800X_L_	80 @ 50 MHz	<b>5,2,1</b>	60 @ 500 MHz	1400	0.56	510
1008CT-900X_L_	90 @ 50 MHz	<b>5,2</b>	65 @ 500 MHz	1400	0.61	500
1008CT-101X_L_	100 @ 50 MHz	<b>5,2</b>	60 @ 500 MHz	1000	0.63	480

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

1008CT-101XJLC

**Tolerance:** F = 1% G = 2% J = 5%

(Table shows stock tolerances in bold.)

**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 (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. Tolerances in bold are stocked for immediate shipment.

4. Q measured at using an Agilent/HP 4291A with an Agilent/HP 16193 test fixture.

5. SRF measured using an Agilent/HP 8720D network analyzer and a Coilcraft SMD-D test fixture.

6. DCR measured on a Cambridge Technology micro-ohmmeter and a Coilcraft CCF840 test fixture.

7. Current that causes a 15°C temperature rise from 25°C ambient.

8. **Ambient temperature range:** -40°C to +125°C with Irms current  
+125°C to +140°C with derated current

9. **Storage temperature range:** Component: -40°C to +140°C  
Packaging: -40°C to +80°C

10. **Resistance to soldering heat:** Three reflows at >217°C for 90 seconds (+260°C ±5°C for 20 – 40 seconds), allowing parts to cool to room temperature between.

11. Electrical specifications at 25°C.

12. Temperature coefficient of inductance: +25 to +125 ppm/°C.

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

**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.

Document 102-1 Revised 10/06/08

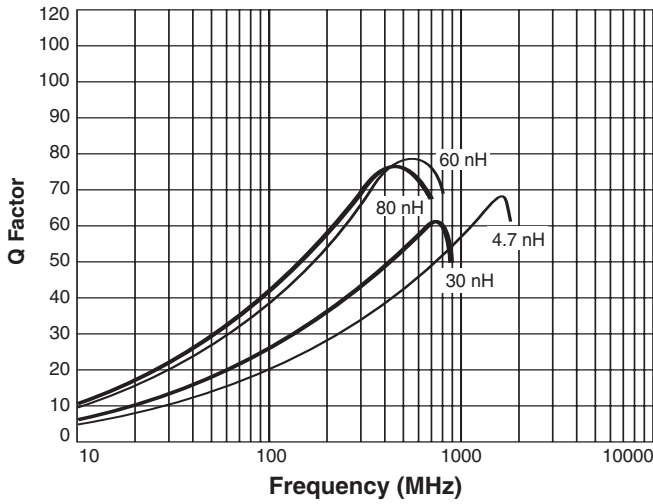
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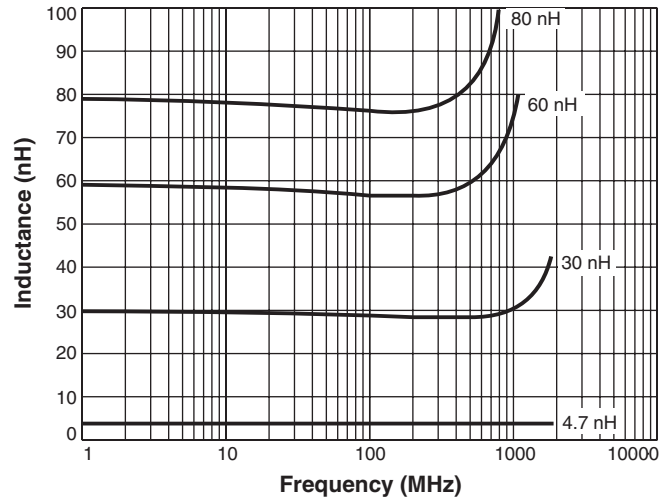
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## Typical Q vs Frequency

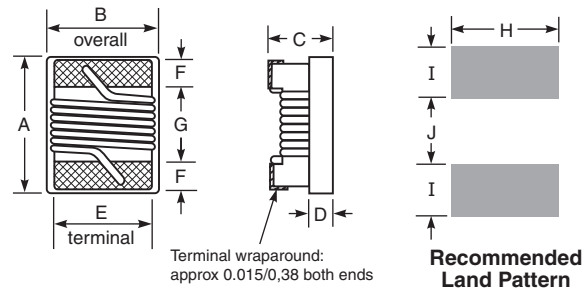
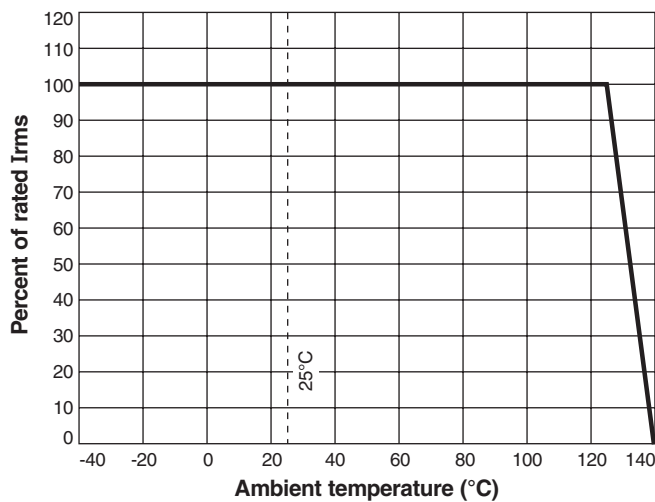


**S-Parameter files**  
ON OUR WEB SITE OR CD  
**SPICE models**  
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## Typical L vs Frequency



## Irms Derating



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

**Weight:** 17.1 – 17.8 mg  
**Tape and reel:** 2000/7" reel; 7500/13" reel 8 mm tape width  
For packaging data see Tape and Reel Specifications section.



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Document 102-2 Revised 10/06/08

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