



# Chip Inductors – 1008AF (2520)

- Lowest DCR and highest current rating of our 1008 size inductors
- Available in 14 inductance values from 0.9 to 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 <sup>3</sup>	Q typ <sup>4</sup>	SRF min <sup>5</sup> (MHz)	DCR max <sup>6</sup> (Ohms)	Isat <sup>7</sup> (A)	Irms <sup>8</sup> (A)
1008AF-901X_L_	0.9	<b>10,5</b>	25	415	0.100	1.4	1.3
1008AF-112X_L_	1.1	<b>10,5</b>	24	376	0.105	1.3	1.2
1008AF-132X_L_	1.3	<b>10,5</b>	37	198	0.110	1.2	1.1
1008AF-152X_L_	1.5	<b>10,5</b>	22	135	0.125	1.1	1.0
1008AF-192X_L_	1.9	<b>10,5</b>	29	126	0.140	1.0	1.0
1008AF-222X_L_	2.2	<b>10,5</b>	21	106	0.155	0.95	0.95
1008AF-272X_L_	2.7	<b>10,5</b>	22	70	0.190	0.80	0.90
1008AF-332X_L_	3.3	<b>10,5</b>	21	59	0.210	0.75	0.80
1008AF-392X_L_	3.9	<b>10,5</b>	21	55	0.220	0.70	0.80
1008AF-472X_L_	4.7	<b>10,5</b>	27	48	0.435	0.70	0.65
1008AF-582X_L_	5.8	<b>10,5</b>	21	37	0.280	0.55	0.75
1008AF-682X_L_	6.8	<b>10,5</b>	20	33	0.315	0.50	0.70
1008AF-822X_L_	8.2	<b>10,5</b>	20	34	0.395	0.50	0.65
1008AF-103X_L_	10.0	<b>10,5</b>	22	26	0.480	0.45	0.55

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

**1008AF-103XJLC**

**Tolerance:** J = 5% K = 10%

(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. Factory order only, not stocked (7500 parts per full reel).

- Inductance measured at 2.5 MHz using Coilcraft SMD-A fixture in an Agilent/HP 4286A impedance analyzer with Coilcraft-provided correlation pieces.
- Tolerances in bold are stocked for immediate shipment.
- Q measured at 2.5 MHz 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.
- DC current at 25°C that causes an inductance drop of 10% (typ) from its value without current. [Click for temperature derating information.](#)
- Current that causes a 40°C temperature rise from 25°C ambient. This information is for reference only and does not represent absolute maximum ratings. [Click for temperature derating information.](#)
- Electrical specifications at 25°C.

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

**Designer's Kit C414** contains 10 of each 5% value

**Core material** Ferrite

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

**Weight** 28 – 33 mg

**Ambient temperature** –40°C to +85°C with Irms current.

**Maximum part temperature** +125°C (ambient + temp rise). [Derating.](#)

**Storage temperature** Component: –40°C to +125°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 per 7" reel; 7500 per 13" reel

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

**PCB washing** Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See [Doc787\\_PCB\\_Washing.pdf](#).



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**PRECISION** REPEATABLE  
 MEASUREMENTS  
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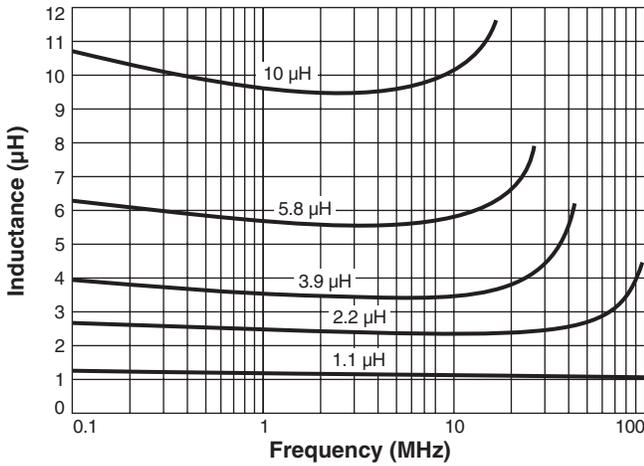
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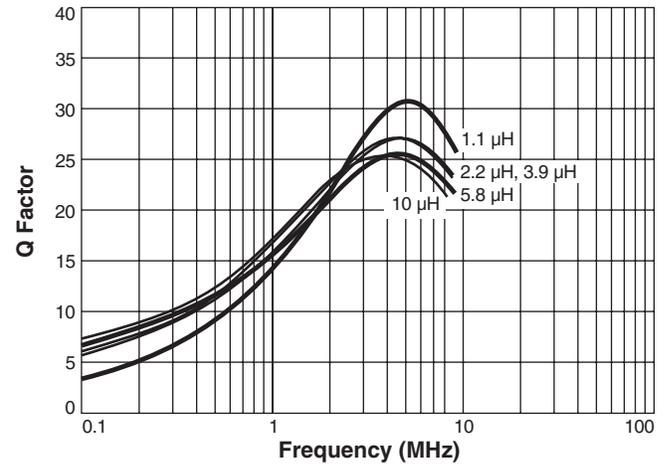


# 1008AF Series (2520)

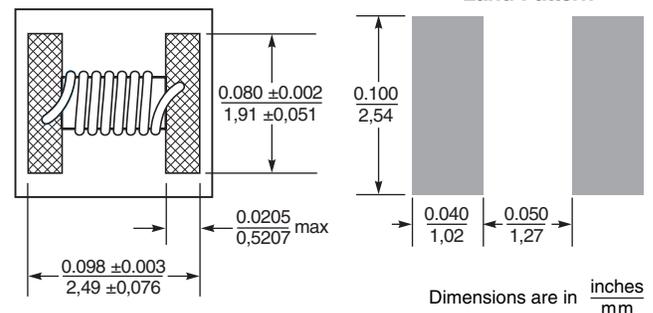
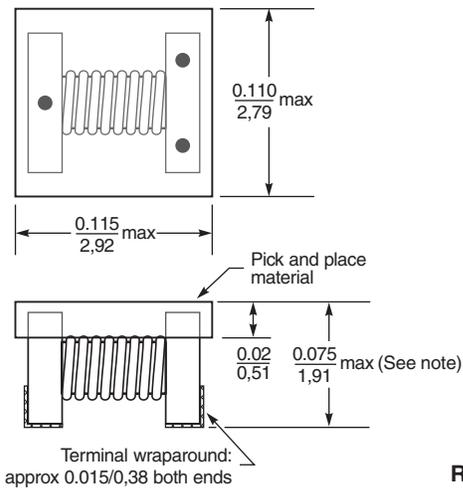
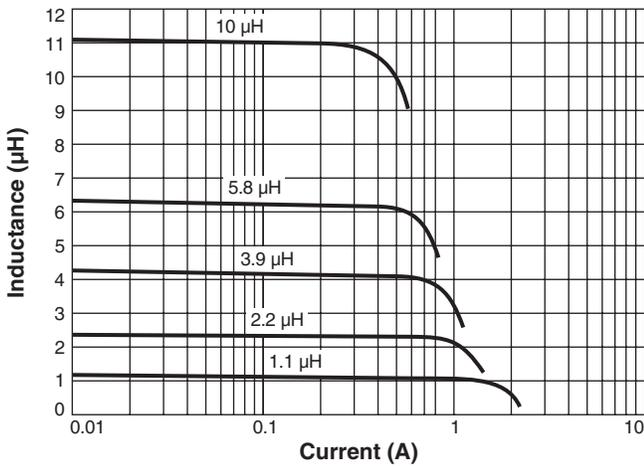
## Typical L vs Frequency



## Typical Q vs Frequency



## Typical L vs Current



**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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