



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 μ H.

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

Part number ¹	Inductance ² (μ H)	Percent tolerance ³	Q typ ⁴	SRF min ⁵ (MHz)	DCR max ⁶ (Ohms)	Isat ⁷ (A)	Irms ⁸ (A)
1008AF-901X_R_	0.9	10, 5	25	415	0.100	1.4	1.3
1008AF-112X_R_	1.1	10, 5	24	376	0.105	1.3	1.2
1008AF-132X_R_	1.3	10, 5	37	198	0.110	1.2	1.1
1008AF-152X_R_	1.5	10, 5	22	135	0.125	1.1	1.0
1008AF-192X_R_	1.9	10, 5	29	126	0.140	1.0	1.0
1008AF-222X_R_	2.2	10, 5	21	106	0.155	0.95	0.95
1008AF-272X_R_	2.7	10, 5	22	70	0.190	0.80	0.90
1008AF-332X_R_	3.3	10, 5	21	59	0.210	0.75	0.80
1008AF-392X_R_	3.9	10, 5	21	55	0.220	0.70	0.80
1008AF-472X_R_	4.7	10, 5	27	48	0.435	0.70	0.65
1008AF-582X_R_	5.8	10, 5	21	37	0.280	0.55	0.75
1008AF-682X_R_	6.8	10, 5	28	33	0.315	0.50	0.70
1008AF-822X_R_	8.2	10, 5	22	33.8	0.340	0.50	0.65
1008AF-103X_R_	10.0	10, 5	24	22	0.460	0.45	0.55

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

1008AF-103XJRC

Tolerance: J = 5% K = 10%

(Table shows stock tolerances in bold.)

Termination: R = RoHS matte Sn over Ni over Ag-Pt-glass frit.

RoHS compliance expiring. Last order June 2021:

E = Ag/Pd/Pt-glass frit. Not for new designs.

L = Not halogen-free. Ag/Pd/Pt-glass frit. Not for new designs.

Special order:

T = RoHS Sn/Ag/Cu (95.5/4.0/0.5)

S = Not RoHS Sn/Pb (63/37).

Packaging: C = 7" machine-ready reel. EIA-481 embossed plastic tape (2000 parts per full reel). Quantities less than full reel available: in tape (not machine ready) or with leader and trailer (\$25 charge).

D = 13" machine-ready reel. EIA-481 embossed plastic tape. Factory order only, not stocked (7500 parts per full reel).

B = Less than full reel. In an effort to simplify our part numbering system, Coilcraft is eliminating the need for multiple packaging codes. When ordering, simply change the last letter of your part number from B to C.

2. Inductance measured at 2.5 MHz using 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 2.5 MHz using an Agilent/HP 4291A with an Agilent/HP 16193 test fixture.
5. SRF measured using an Agilent/HP 8753D network analyzer with a Coilcraft SMD-D fixture.
6. DCR measured on a Cambridge Technology Micro-ohmmeter.
7. DC current at 25°C that causes an inductance drop of 10% (typ) from its value without current. [Click for temperature derating information.](#)
8. 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.](#)
9. 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 matte Sn over Ni over Ag-Pt-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)

0.22 per billion hours / 4.55E+09 hours, calculated per Telcordia SR-332

Packaging 2000 per 7" reel; 7500 per 13" reel

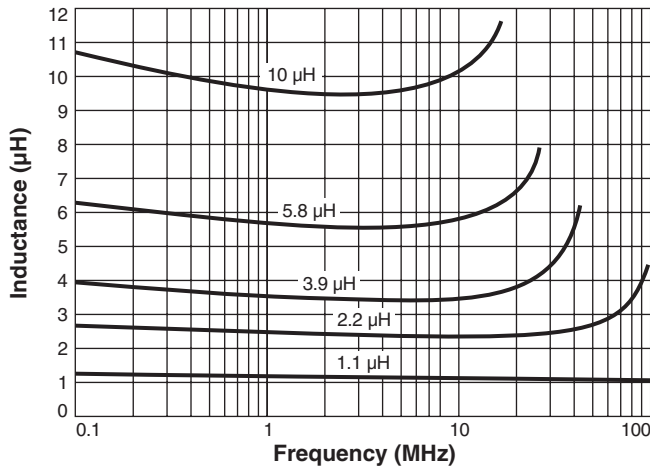
Plastic tape: 8 mm wide, 0.3 mm thick, 4 mm pocket spacing, 2.0 mm pocket depth

PCB washing Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See [Doc787_PCB_Washing.pdf](#).

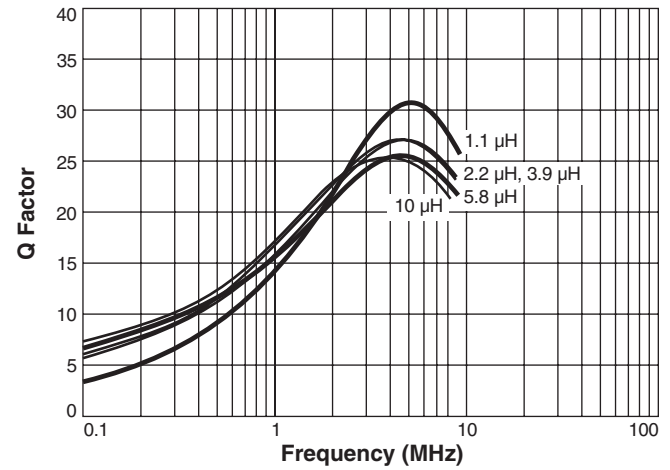


1008AF Series (2520)

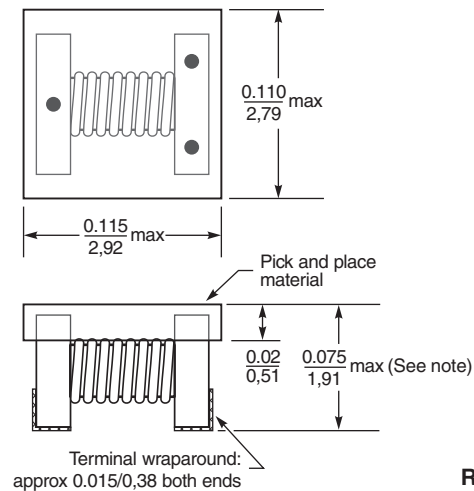
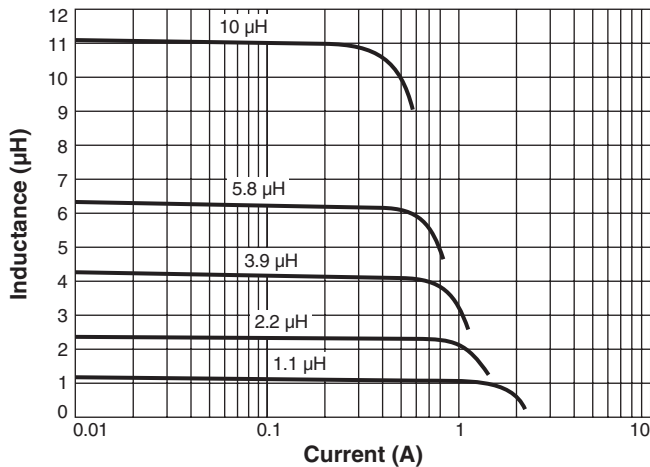
Typical L vs Frequency



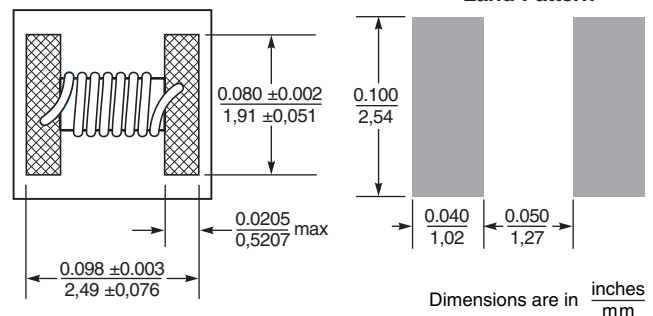
Typical Q vs Frequency



Typical L vs Current



Recommended Land Pattern



Note: Height dimension is before optional solder application. For maximum height dimension including solder, add 0.006 in / 0.152 mm.