



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_L_ | 0.9 | 10,5 | 25 | 415 | 0.100 | 1.4 | 1.3 |
| 1008AF-112X_L_ | 1.1 | 10,5 | 24 | 376 | 0.105 | 1.3 | 1.2 |
| 1008AF-132X_L_ | 1.3 | 10,5 | 37 | 198 | 0.110 | 1.2 | 1.1 |
| 1008AF-152X_L_ | 1.5 | 10,5 | 22 | 135 | 0.125 | 1.1 | 1.0 |
| 1008AF-192X_L_ | 1.9 | 10,5 | 29 | 126 | 0.140 | 1.0 | 1.0 |
| 1008AF-222X_L_ | 2.2 | 10,5 | 21 | 106 | 0.155 | 0.95 | 0.95 |
| 1008AF-272X_L_ | 2.7 | 10,5 | 22 | 70 | 0.190 | 0.80 | 0.90 |
| 1008AF-332X_L_ | 3.3 | 10,5 | 21 | 59 | 0.210 | 0.75 | 0.80 |
| 1008AF-392X_L_ | 3.9 | 10,5 | 21 | 55 | 0.220 | 0.70 | 0.80 |
| 1008AF-472X_L_ | 4.7 | 10,5 | 27 | 48 | 0.435 | 0.70 | 0.65 |
| 1008AF-582X_L_ | 5.8 | 10,5 | 21 | 37 | 0.280 | 0.55 | 0.75 |
| 1008AF-682X_L_ | 6.8 | 10,5 | 20 | 33 | 0.315 | 0.50 | 0.70 |
| 1008AF-822X_L_ | 8.2 | 10,5 | 20 | 34 | 0.395 | 0.50 | 0.65 |
| 1008AF-103X_L_ | 10.0 | 10,5 | 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 which the inductance drops 10% (typ.) from its value without current.
- Current that causes a 40°C temperature rise from 25°C ambient.
- 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, +85°C to +125°C with derated current

Storage temperature Component: –40°C to +125°C. 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 Only pure water or alcohol recommended



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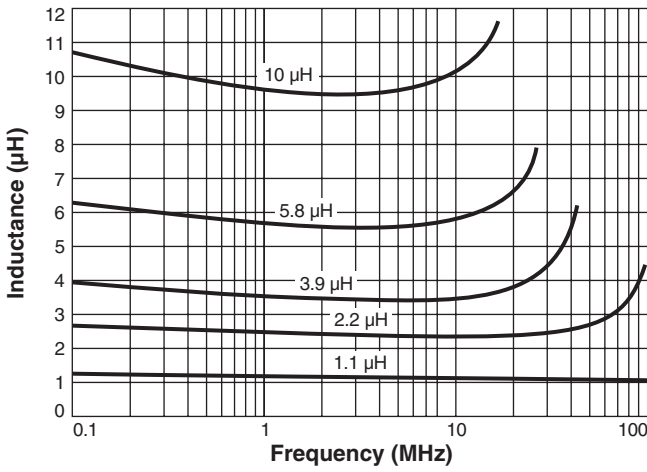
This product may not be used in medical of high risk applications without prior Coilcraft approval. Specification subject to change without notice. Please check out web site for latest information.

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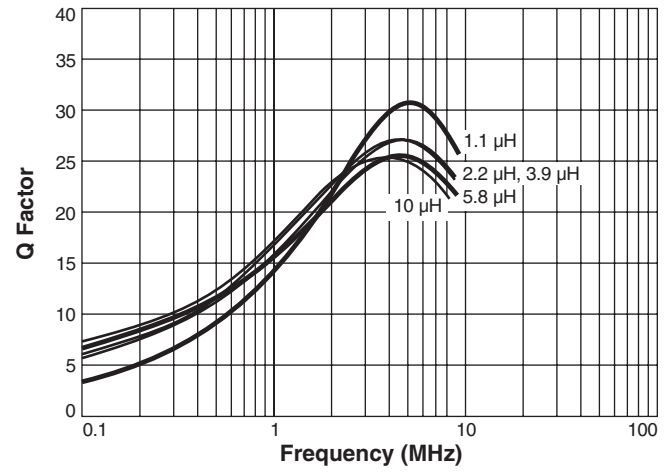


1008AF Series (2520)

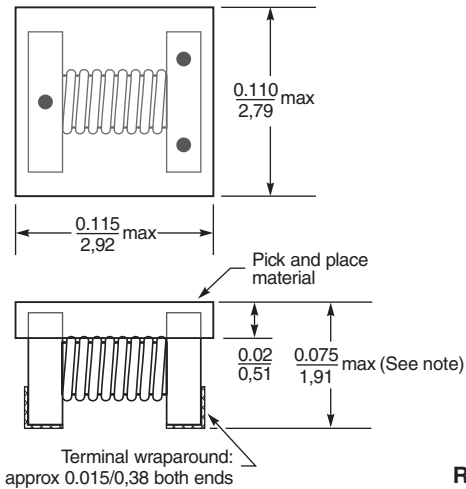
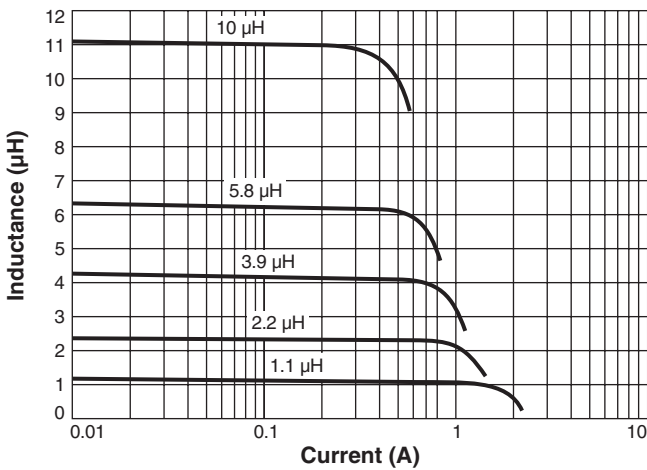
Typical L vs Frequency



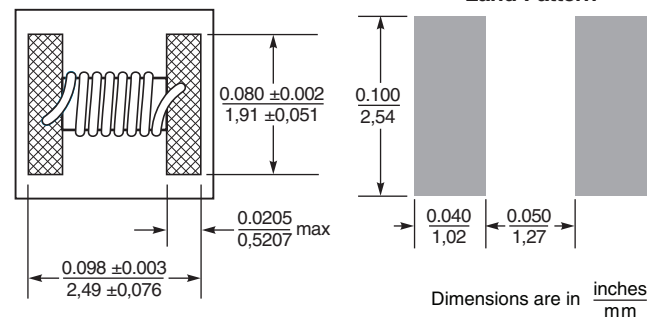
Typical Q vs Frequency



Typical L vs Current

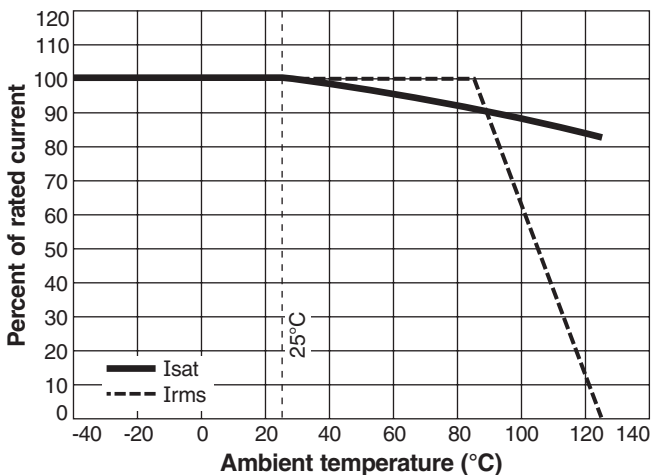


Recommended Land Pattern



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

Typical Current Derating



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