# 1008F Series – SMD WIRE WOUND FERRITE CHIP INDUCTORS

**Rev. A**

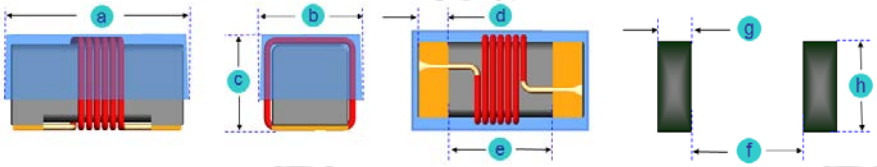
## A. Electrical Specifications:

| P/N | L (uH) | L Test Freq. (MHz) | Tol. | Q Min. | Q Test Freq. (MHz) | SRF Min. (GHz) | DCR Max.(Ω) | I rms. Max.(mA) | 1st Color | 2nd Color | 3rd Color |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **1008F-47N_** | 0.047 | 50 | K, J | 50 | 50 | 1.80 | 0.045 | 650 | YELLOW | VIOLET | BLACK |
| **1008F-68N_** | 0.068 | 50 | K, J | 40 | 50 | 1.80 | 0.045 | 650 | BLUE | GRAY | BLACK |
| **1008F-R10_** | 0.100 | 50 | K, J | 50 | 50 | 1.80 | 0.196 | 700 | BROWN | BLACK | BROWN |
| **1008F-R18_** | 0.180 | 50 | K, J | 50 | 50 | 1.00 | 0.290 | 700 | BROWN | GRAY | BROWN |
| **1008F-R20_** | 0.200 | 50 | K, J | 50 | 50 | 0.900 | 0.285 | 700 | RED | BLACK | BROWN |
| **1008F-R24_** | 0.240 | 50 | K, J | 50 | 50 | 0.900 | 0.135 | 700 | RED | YELLOW | BROWN |
| **1008F-R56_** | 0.560 | 7.9 | K, J | 40 | 50 | 0.460 | 0.300 | 700 | GREEN | BLUE | BROWN |
| **1008F-R68_** | 0.680 | 7.9 | K, J | 27 | 50 | 0.400 | 0.320 | 700 | BLUE | GRAY | BROWN |
| **1008F-1R0_** | 1.00 | 50 | K, J | 50 | 50 | 0.380 | 0.260 | 650 | BROWN | BLACK | RED |
| **1008F-1R2_** | 1.20 | 7.9 | K, J | 48 | 50 | 0.210 | 0.680 | 650 | BROWN | RED | RED |
| **1008F-1R5_** | 1.50 | 7.9 | K, J | 41 | 50 | 0.190 | 0.760 | 630 | BROWN | GREEN | RED |
| **1008F-1R8_** | 1.80 | 7.9 | K, J | 39 | 50 | 0.170 | 0.840 | 600 | BROWN | GRAY | RED |
| **1008F-2R2_** | 2.20 | 7.9 | K, J | 34 | 50 | 0.150 | 1.10 | 520 | RED | RED | RED |
| **1008F-2R7_** | 2.70 | 7.9 | K, J | 34 | 50 | 0.135 | 1.28 | 490 | RED | VIOLET | RED |
| **1008F-3R3_** | 3.30 | 7.9 | K, J | 32 | 50 | 0.120 | 1.46 | 450 | ORANGE | ORANGE | RED |
| **1008F-3R9_** | 3.90 | 7.9 | K, J | 32 | 7.9 | 0.105 | 1.56 | 420 | ORANGE | WHITE | RED |
| **1008F-4R3_** | 4.30 | 7.9 | K, J | 30 | 7.9 | 0.085 | 1.70 | 400 | YELLOW | ORANGE | RED |
| **1008F-4R7_** | 4.70 | 7.9 | K, J | 31 | 7.9 | 0.090 | 1.68 | 400 | YELLOW | VIOLET | RED |
| **1008F-5R6_** | 5.60 | 7.9 | K, J | 31 | 7.9 | 0.080 | 1.82 | 380 | GREEN | BLUE | RED |
| **1008F-6R8_** | 6.80 | 7.9 | K, J | 31 | 7.9 | 0.070 | 2.00 | 360 | BLUE | GRAY | RED |
| **1008F-8R2_** | 8.20 | 7.9 | K, J | 23 | 7.9 | 0.065 | 2.65 | 330 | GRAY | RED | RED |
| **1008F-100_** | 10.0 | 7.9 | K, J | 31 | 7.9 | 0.060 | 2.95 | 300 | BROWN | BLACK | ORANGE |
| **1008F-120_** | 12.0 | 7.9 | K, J | 30 | 7.9 | 0.050 | 3.35 | 270 | BROWN | RED | ORANGE |
| **1008F-150_** | 15.0 | 7.9 | K, J | 38 | 7.9 | 0.050 | 3.04 | 250 | BROWN | GREEN | ORANGE |
| **1008F-220_** | 22.0 | 2.52 | K, J | 10 | 2.52 | 0.010 | 2.80 | 120 | RED | RED | ORANGE |

**Note: 1008F -xxx_: "1008F" = Size Type, "xxx" = Inductance, "_" = Tolerance, K= ± 10%, J= ±5%.**

## B. Dimensions: mm (Inch)

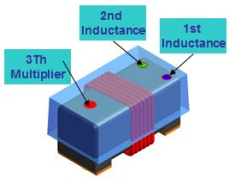
| Series | a | b | c | d | e | f | g | h |
|---|---|---|---|---|---|---|---|---|
| **1008F** | 2.92 (0.115) | 2.79 (0.110) | 2.03 (0.080) | 0.51 (0.020) | 1.52 (0.060) | 1.27 (0.050) | 1.27 (0.050) | 2.54 (0.100) |
| **Tol.** | Max. | Max. | Max. | Typ. | Typ. | Typ. | Typ. | Typ. |




## C. Color coding:

1. Parts are marked with 3 color dots. The table below shows the significance of each color.
2. Dots 1 and 2 indicate the inductance in nano-Henries.
3. Dot 3 indicates number of zeroes to be added.

| | |
|---|---|
| **0 = Black** | **5=Green** |
| **1 = Brown** | **6=Blue** |
| **2 = Red** | **7 = Violet** |
| **3 = Orange** | **8 = Gray** |
| **4 = Yellow** | **9 = White** |




## D. General Information:

1. P/N: 1008F -xxx_: "1008F" = Type, "xxx" = Inductance, "_" = Tolerance.
2. Tolerance "_" : K: ± 10%, J: ± 5%
3. Small and lightweight surface mounting type
4. High Q at high frequency
5. High self-resonance frequency
6. For 15ºC Temperature Rise
7. Inductance & Q measured with HP4291B Impedance Analyzer
8. SRF measured with HP8720D or HP8753E Network Analyzer
9. DCR measured with 16502 milliohm meter
10. Operating temperature: -40°C to +85ºC
11. Inductance and Current Range: From 0.047 uH (650 mA) to 22.0 uH (120 mA)
12. SRF: From 10 MHz to 1800 MHz
13. Unspecified values available on request.
14. MSL: Level 1.




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## E. Applications:

1. Game Consoles
2. Set Top Boxes
3. Cables Modems
4. Computers
5. Mobile Communication Devices (Cell Phones, Radios, etc.)

## F. Characteristics Curve:

