



Frontier Electronics Corp.

667 E. COCHRAN STREET, SIMI VALLEY, CA 93065

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SMD Wire Wound Ceramic Chip Inductors—1008C series

A. Electrical Specifications:

| Part No. | L (nH) | Tolerance | Q (Min.) | SRF (MHz) (Min.) | DCR Ω (Max) | I rms. (mA) | Color Code | | |
|------------|-------------|------------|-----------|------------------|--------------------|-------------|------------|-----------------|-------|
| | | | | | | | 1st | 2 nd | 3rd |
| 1008C-10N_ | 10@50MHz | M, K | 50@500MHz | 4100 | 0.08 | 1000 | Brown | Black | Black |
| 1008C-12N_ | 12@50MHz | M, K | 50@500MHz | 3300 | 0.09 | 1000 | Brown | Red | Black |
| 1008C-15N_ | 15@50MHz | M, K | 50@500MHz | 2500 | 0.10 | 1000 | Brown | Green | Black |
| 1008C-18N_ | 18@50MHz | M, K, J, G | 50@500MHz | 2500 | 0.11 | 1000 | Brown | Gray | Black |
| 1008C-22N_ | 22@50MHz | M, K, J, G | 55@350MHz | 2400 | 0.12 | 1000 | Red | Red | Black |
| 1008C-27N_ | 27@50MHz | M, K, J, G | 55@350MHz | 1600 | 0.13 | 1000 | Red | Violet | Black |
| 1008C-33N_ | 33@50MHz | M, K, J, G | 60@350MHz | 1600 | 0.14 | 1000 | Orange | Orange | Black |
| 1008C-39N_ | 39@50MHz | M, K, J, G | 60@350MHz | 1500 | 0.15 | 1000 | Orange | White | Black |
| 1008C-47N_ | 47@50MHz | M, K, J, G | 65@350MHz | 1500 | 0.16 | 1000 | Yellow | Violet | Black |
| 1008C-56N_ | 56@50MHz | K, J, G | 65@350MHz | 1300 | 0.18 | 1000 | Green | Blue | Black |
| 1008C-68N_ | 68@50MHz | K, J, G | 65@350MHz | 1300 | 0.20 | 1000 | Blue | Gray | Black |
| 1008C-82N_ | 82@50MHz | K, J, G | 60@350MHz | 1000 | 0.22 | 1000 | Gray | Red | Black |
| 1008C-R10_ | 100@25MHz | K, J, G | 60@350MHz | 1000 | 0.56 | 650 | Brown | Black | Brown |
| 1008C-R12_ | 120@25MHz | K, J, G | 60@350MHz | 950 | 0.63 | 650 | Brown | Red | Brown |
| 1008C-R15_ | 150@25MHz | K, J, G | 45@100MHz | 850 | 0.70 | 580 | Brown | Green | Brown |
| 1008C-R18_ | 180@25MHz | K, J, G | 45@100MHz | 750 | 0.77 | 620 | Brown | Gray | Brown |
| 1008C-R20_ | 200@25MHz | K, J, G | 50@100MHz | 750 | 0.81 | 500 | Red | Black | Brown |
| 1008C-R22_ | 220@25MHz | K, J, G | 45@100MHz | 700 | 0.84 | 500 | Red | Red | Brown |
| 1008C-R24_ | 240@25MHz | K, J, G | 50@100MHz | 600 | 0.84 | 500 | Red | Yellow | Brown |
| 1008C-R27_ | 270@25MHz | K, J, G | 45@100MHz | 600 | 0.91 | 500 | Red | Violet | Brown |
| 1008C-R30_ | 300@150MHz | K, J, G | 40@100MHz | 500 | 1.05 | 660 | Orange | Black | Brown |
| 1008C-R33_ | 330@25MHz | K, J, G | 45@100MHz | 570 | 1.05 | 450 | Orange | Orange | Brown |
| 1008C-R36_ | 360@150MHz | K, J, G | 40@100MHz | 500 | 1.05 | 660 | Orange | Blue | Brown |
| 1008C-R39_ | 390@25MHz | K, J, G | 45@100MHz | 500 | 1.12 | 470 | Org | White | Brown |
| 1008C-R43_ | 430@150MHz | K, J, G | 40@100MHz | 425 | 1.19 | 600 | Yellow | Orange | Brown |
| 1008C-R47_ | 470@25MHz | K, J, G | 45@100MHz | 450 | 1.19 | 470 | Yellow | Violet | Brown |
| 1008C-R56_ | 560@25MHz | K, J, G | 45@100MHz | 415 | 1.33 | 400 | Green | Blue | Brown |
| 1008C-R62_ | 620@25MHz | K, J, G | 45@100MHz | 375 | 1.40 | 300 | Blue | Red | Brown |
| 1008C-R68_ | 680@25MHz | K, J, G | 45@100MHz | 375 | 1.47 | 400 | Blue | Gray | Brown |
| 1008C-R75_ | 750@25MHz | K, J, G | 45@100MHz | 360 | 1.54 | 360 | Violet | Green | Brown |
| 1008C-R82_ | 820@25MHz | K, J, G | 45@100MHz | 350 | 1.61 | 400 | Gray | Red | Brown |
| 1008C-R91_ | 910@25MHz | K, J, G | 35@50MHz | 320 | 1.68 | 380 | White | Brown | Brown |
| 1008C-1R0_ | 1000@25MHz | K, J, G | 35@50MHz | 290 | 1.75 | 370 | Brown | Black | Red |
| 1008C-1R2_ | 1200@7.9MHz | K, J, G | 35@50MHz | 250 | 2.00 | 310 | Brown | Red | Red |
| 1008C-1R5_ | 1500@7.9MHz | K, J, G | 28@50MHz | 200 | 2.30 | 330 | Brown | Green | Red |
| 1008C-1R8_ | 1800@7.9MHz | K, J, G | 28@50MHz | 160 | 2.60 | 300 | Brown | Gray | Red |
| 1008C-2R0_ | 2000@25MHz | K, J, G | 25@50MHz | 160 | 2.80 | 280 | Red | Black | Red |
| 1008C-2R2_ | 2200@7.9MHz | K, J, G | 28@50MHz | 160 | 2.80 | 280 | Red | Red | Red |
| 1008C-2R7_ | 2700@7.9MHz | K, J, G | 22@25MHz | 140 | 3.20 | 290 | Red | Violet | Red |
| 1008C-3R3_ | 3300@7.9MHz | K, J, G | 22@25MHz | 110 | 3.40 | 290 | Orange | Org | Red |
| 1008C-3R9_ | 3900@7.9MHz | K, J, G | 20@25MHz | 100 | 3.60 | 260 | Orange | White | Red |
| 1008C-4R7_ | 4700@7.9MHz | K, J, G | 20@25MHz | 90 | 4.00 | 260 | Yellow | Violet | Red |



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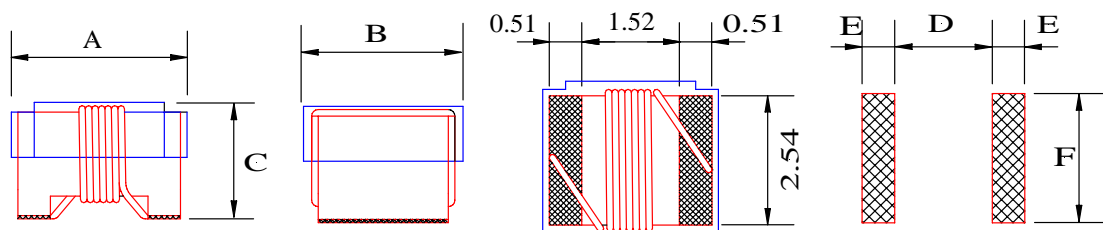
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SMD Wire Wound Ceramic Chip Inductors—1008C series

B. Dimensions: (Unit: mm)

| SERIES | A (Max.) | B (Max.) | C (Max.) | D (Max.) | E | F |
|--------|----------|----------|----------|----------|------|------|
| 1008C | 2.92 | 2.79 | 2.03 | 1.02 | 1.27 | 2.54 |

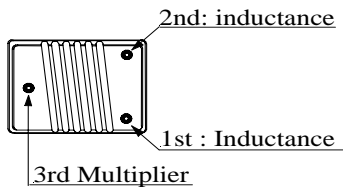
C. Mechanical Drawing:



Land Pattern

D. Color coding:

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



Top view

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

Color code table



E. General information:

- P/N: 1008C-XXX_: 1008C: Size, "XXX": Inductance, "_": Tolerance.
- Tolerance: M: $\pm 20\%$, K: $\pm 10\%$, J: $\pm 5\%$, G: $\pm 2\%$, F: $\pm 1\%$.
- High Q at high frequency.
- High self-resonance frequency.
- Inductance & Q measured using the HP4291B
- SRF measured using the HP8720D or HP8753E.
- DCR measured using the 502BC.
- For 15°C Temperature Rise.
- Operating temperature: -40°C TO +125°C.
- Inductance and Current Range: From 10.0nH(1000mA)~4700nH(260mA).
- SRF: From 4.1GHz to 90MHz.
- RoHS compliant.

F. Applications:

* Pagers. * Mobile communication units. * Portable telephone. * Hybrid.

★ *Special specifications are available for customer's requirement.*



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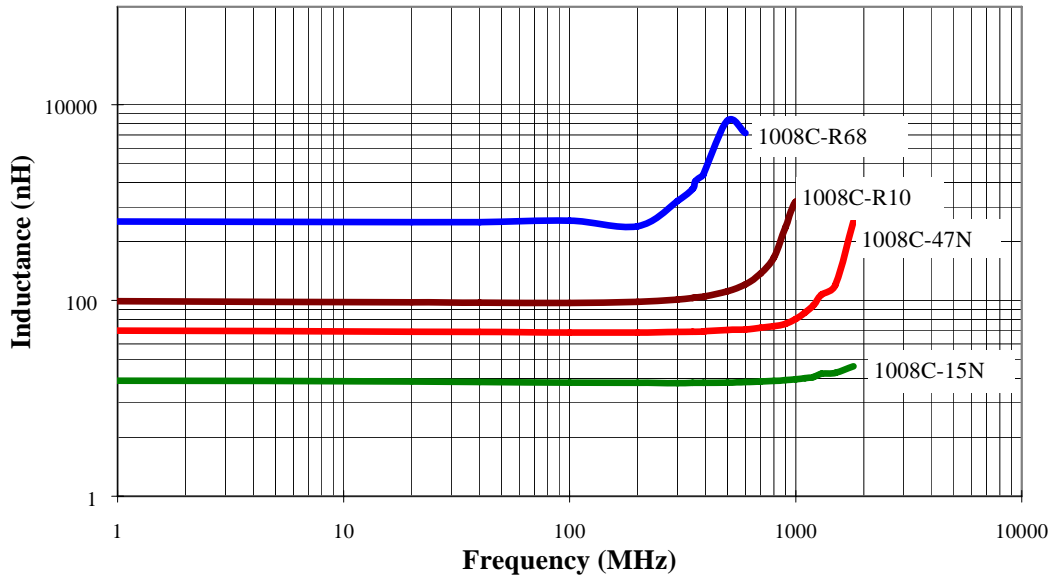
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G. Characteristic curve:

1. L vs. Frequency:



2. Typical Q vs. Frequency:

