

CS/LCN Series

Wound Chip Inductors High Frequency

CS0603 SERIES

Ceramic body and wire wound construction provide highest SRFs available in 0603 size.

These ultra – compact inductors provided exceptional Q values, even at high frequencies.

CS0805 SERIES

Ceramic body and Wire wound construction provide highest SRFs available in 0805 size.

These ultra – compact inductors provided exceptional Q values, even at high frequencies.

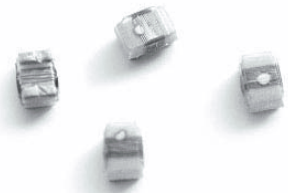
CS1008 SERIES

“ L ” series chip inductors have been designed especially for the needs of today's high frequency designer.

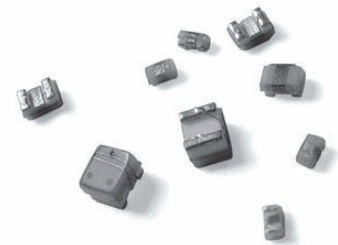
Their ceramic construction delivers the highest possible SRFs as well as excellent Q values.

The non-magnetic coil form also assures the utmost in thermal stability, predictability and batch consistency.

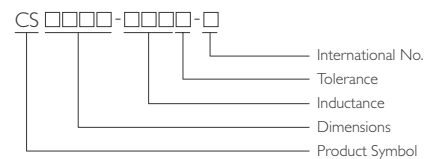
CS Series



LCN Series



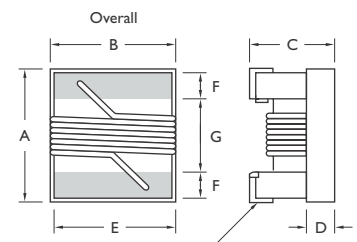
PRODUCT IDENTIFICATION



SHAPES AND DIMENSIONS

| TYPE | UNIT | A | B | C | D | E | F | G |
|--------|------|-------|-------|-------|-------|-------|-------|-------|
| | | Max. | Max. | Max. | Ref. | | | |
| CS0603 | in | 0.071 | 0.044 | 0.040 | 0.015 | 0.030 | 0.013 | 0.034 |
| | mm | 1.80 | 1.12 | 1.02 | 0.35 | 0.86 | 0.33 | 0.76 |
| CS0805 | in | 0.09 | 0.068 | 0.06 | 0.02 | 0.05 | 0.02 | 0.04 |
| | mm | 2.29 | 1.73 | 1.52 | 0.50 | 1.02 | 0.44 | 1.27 |
| CS1008 | in | 0.115 | 0.11 | 0.08 | 0.02 | 0.08 | 0.02 | 0.06 |
| | mm | 2.92 | 2.79 | 2.03 | 0.70 | 1.52 | 0.51 | 2.03 |

Dimensions : mm



Terminal Wraparound :
 CS0603: Approx. 0.007"/0.18mm Both Ends
 CS0805: Approx. 0.015"/0.38mm Both Ends
 CS1008: Approx. 0.015"/0.38mm Both Ends



ELECTRICAL CHARACTERISTICS CS0603 SERIES

| PART NO. | INDUCTANCE (nH) | TOLERANCE (±%) | TEST FREQUENCY (MHz) | Q Min. | SRF (MHz) Min. | DC RESISTANCE (Ω) Max. | RATED CURRENT (mA) Max. | 900MHz | | 1.7 GHz | | COLOR CODING |
|---------------|--------------------|-------------------|----------------------------|-----------|----------------------|------------------------------|-------------------------------|-----------|-----------|-----------|-----------|-----------------|
| | | | | | | | | L TYPE | Q TYPE | L TYPE | Q TYPE | |
| CS0603-1N6□-S | 1.6 | 10/5 | 250 | 24 | 12500 | 0.030 | 700 | 1.67 | 49 | 1.65 | 63 | Red |
| CS0603-1N8□-S | 1.8 | 10/5 | 250 | 16 | 12500 | 0.045 | 700 | 1.63 | 35 | 1.66 | 50 | Black |
| CS0603-3N6□-S | 3.6 | 10/5 | 250 | 22 | 5900 | 0.063 | 700 | 3.72 | 53 | 3.71 | 65 | Red |
| CS0603-3N9□-S | 3.9 | 10/5 | 250 | 22 | 6900 | 0.080 | 700 | 3.95 | 49 | 3.96 | 67 | Brown |
| CS0603-4N3□-S | 4.3 | 10/5 | 250 | 22 | 5900 | 0.063 | 700 | 4.32 | 50 | 4.33 | 70 | Orange |
| CS0603-4N7□-S | 4.7 | 10/5 | 250 | 20 | 5800 | 0.116 | 700 | 4.72 | 47 | 4.75 | 57 | Violet |
| CS0603-5N1□-S | 5.1 | 10/5 | 250 | 20 | 5700 | 0.140 | 700 | 4.93 | 47 | 4.95 | 56 | Green |
| CS0603-5N6□-S | 5.6 | 10/5 | 250 | 20 | 5800 | 0.170 | 700 | 5.53 | 56 | 5.86 | 77 | Yellow |
| CS0603-6N3□-S | 6.3 | 10/5 | 250 | 20 | 5700 | 0.140 | 700 | 5.5 | 47 | 6.1 | 60 | White |
| CS0603-6N8□-S | 6.8 | 10/5 | 250 | 27 | 5800 | 0.110 | 700 | 6.75 | 60 | 7.1 | 81 | Red |
| CS0603-7N5□-S | 7.5 | 10/5 | 250 | 28 | 4800 | 0.106 | 700 | 7.70 | 60 | 7.82 | 65 | Brown |
| CS0603-8N2□-S | 8.2 | 10/5 | 250 | 28 | 4700 | 0.109 | 700 | 8.30 | 60 | 8.50 | 60 | White |
| CS0603-8N7□-S | 8.7 | 10/5 | 250 | 28 | 4600 | 0.109 | 700 | 8.86 | 62 | 9.32 | 58 | Yellow |
| CS0603-9N5□-S | 9.5 | 10/5 | 250 | 28 | 5400 | 0.135 | 700 | 9.70 | 59 | 9.92 | 61 | Blue |
| CS0603-10N□-S | 10 | 10/5/2 | 250 | 31 | 4800 | 0.130 | 700 | 10 | 66 | 10.6 | 83 | Orange |
| CS0603-11N□-S | 11 | 10/5/2 | 250 | 33 | 4000 | 0.086 | 700 | 11 | 53 | 11.5 | 56 | Gray |
| CS0603-12N□-S | 12 | 10/5/2 | 250 | 35 | 4000 | 0.130 | 700 | 12.3 | 72 | 13.5 | 83 | Yellow |
| CS0603-15N□-S | 15 | 10/5/2 | 250 | 35 | 4000 | 0.170 | 700 | 15.4 | 64 | 16.8 | 89 | Green |
| CS0603-16N□-S | 16 | 10/5/2 | 250 | 34 | 3300 | 0.104 | 700 | 16.2 | 55 | 17.3 | 52 | White |
| CS0603-18N□-S | 18 | 10/5/2 | 250 | 35 | 3100 | 0.170 | 700 | 18.7 | 70 | 21.4 | 69 | Blue |
| CS0603-22N□-S | 22 | 10/5/2 | 250 | 38 | 3000 | 0.190 | 700 | 22.8 | 73 | 26.1 | 71 | Violet |
| CS0603-24N□-S | 24 | 10/5/2 | 250 | 37 | 2650 | 0.135 | 700 | 24.5 | 45 | 28.7 | 39 | Black |
| CS0603-27N□-S | 27 | 10/5/2 | 250 | 40 | 2800 | 0.220 | 600 | 29.2 | 74 | 34.6 | 65 | Gray |
| CS0603-30N□-S | 30 | 10/5/2 | 250 | 37 | 2250 | 0.144 | 600 | 31.4 | 47 | 39.9 | 28 | Brown |
| CS0603-33N□-S | 33 | 10/5/2 | 250 | 40 | 2300 | 0.220 | 600 | 36 | 67 | 49.5 | 42 | White |
| CS0603-36N□-S | 36 | 10/5/2 | 250 | 38 | 2080 | 0.250 | 600 | 39.4 | 47 | 52.7 | 24 | Red |
| CS0603-39N□-S | 39 | 10/5/2 | 250 | 40 | 2200 | 0.250 | 600 | 42.7 | 60 | 60.2 | 40 | Black |
| CS0603-43N□-S | 43 | 10/5/2 | 250 | 39 | 2000 | 0.280 | 600 | 47 | 44 | 64.9 | 21 | Orange |
| CS0603-47N□-S | 47 | 10/5/2 | 200 | 38 | 2000 | 0.280 | 600 | 52.2 | 62 | 77.2 | 35 | Brown |
| CS0603-56N□-S | 56 | 10/5/2 | 200 | 38 | 1900 | 0.310 | 600 | 62.5 | 56 | 97 | 26 | Red |
| CS0603-68N□-S | 68 | 10/5/2 | 200 | 37 | 1700 | 0.340 | 600 | 80.5 | 54 | 168 | 21 | Orange |
| CS0603-72N□-S | 72 | 10/5/2 | 150 | 34 | 1700 | 0.490 | 400 | 82 | 53 | 135 | 20 | Yellow |
| CS0603-82N□-S | 82 | 10/5/2 | 150 | 34 | 1700 | 0.540 | 400 | 96.2 | 54 | 177 | 21 | Green |
| CS0603-R10□-S | 100 | 10/5/2 | 150 | 34 | 1400 | 0.580 | 400 | 124 | 49 | – | – | Blue |
| CS0603-R11□-S | 110 | 10/5/2 | 150 | 32 | 1350 | 0.610 | 300 | 138 | 43 | – | – | Violet |
| CS0603-R12□-S | 120 | 10/5/2 | 150 | 32 | 1300 | 0.650 | 300 | 166 | 39 | – | – | Gray |
| CS0603-R15□-S | 150 | 10/5/2 | 150 | 28 | 990 | 0.920 | 280 | 250 | 25 | – | – | White |
| CS0603-R18□-S | 180 | 10/5/2 | 100 | 25 | 990 | 1.250 | 240 | 305 | 22 | – | – | Black |
| CS0603-R22□-S | 220 | 10/5/2 | 100 | 25 | 900 | 2.100 | 200 | – | – | – | – | Brown |
| CS0603-R27□-S | 270 | 10/5/2 | 100 | 24 | 900 | 2.300 | 170 | – | – | – | – | Red |
| CS0603-R33□-S | 330 | 10/5/2 | 100 | 25 | 900 | 3.890 | 100 | – | – | – | – | Orange |
| CS0603-R39□-S | 390 | 10/5/2 | 100 | 25 | 900 | 4.350 | 100 | – | – | – | – | Yellow |

- When ordering, please specify tolerance and packaging code. Ex : CS0603-R12□-S
Tolerance : G = 2% , J = 5% , K = 10% , M = 20%
Packaging : ClearTape and Reel (Standard)

- L, Q : HP4287A
- SRF : E4991A / HP8753D
- RDC : Digital Multimeter SC-7401
- For 15°C Rise
- Operating Temperature Range -40°C to 125°C



ELECTRICAL CHARACTERISTICS CS0805 SERIES

| PART NO. | INDUCTANCE (nH) | TOLERANCE (±%) | TEST FREQUENCY (MHz) | Q Min. | TEST FREQUENCY (MHz) | SRF (MHz) Min. | DC RESISTANCE (Ω) Max. | RATED CURRENT (mA) Max. | COLOR CODING |
|---------------|--------------------|-------------------|----------------------------|-----------|----------------------------|----------------------|------------------------------|-------------------------------|-----------------|
| CS0805-2N8□-S | 2.8 | 10/5 | 250 | 80 | 1500 | 7900 | 0.06 | 800 | Gray |
| CS0805-3N0□-S | 3.0 | 10/5 | 250 | 65 | 1500 | 7900 | 0.06 | 800 | White |
| CS0805-3N3□-S | 3.3 | 10/5 | 250 | 50 | 1500 | 7900 | 0.08 | 600 | Black |
| CS0805-5N6□-S | 5.6 | 10/5 | 250 | 65 | 1000 | 5500 | 0.08 | 600 | Orange |
| CS0805-6N8□-S | 6.8 | 10/5 | 250 | 50 | 1000 | 5500 | 0.11 | 600 | Brown |
| CS0805-7N5□-S | 7.5 | 10/5 | 250 | 50 | 1000 | 4500 | 0.14 | 600 | Green |
| CS0805-8N2□-S | 8.2 | 10/5 | 250 | 50 | 1000 | 4700 | 0.12 | 600 | Red |
| CS0805-12N□-S | 12 | 10/5/2 | 250 | 50 | 500 | 4000 | 0.15 | 600 | Orange |
| CS0805-15N□-S | 15 | 10/5/2 | 250 | 50 | 500 | 3400 | 0.17 | 600 | Yellow |
| CS0805-18N□-S | 18 | 10/5/2 | 250 | 50 | 500 | 3300 | 0.20 | 600 | Green |
| CS0805-22N□-S | 22 | 10/5/2 | 250 | 55 | 500 | 2600 | 0.22 | 500 | Blue |
| CS0805-24N□-S | 24 | 10/5/2 | 250 | 50 | 500 | 2000 | 0.22 | 500 | Gray |
| CS0805-27N□-S | 27 | 10/5/2 | 250 | 55 | 500 | 2500 | 0.25 | 500 | Violet |
| CS0805-33N□-S | 33 | 10/5/2 | 250 | 60 | 500 | 2050 | 0.27 | 500 | Gray |
| CS0805-36N□-S | 36 | 10/5/2 | 250 | 55 | 500 | 1700 | 0.27 | 500 | Orange |
| CS0805-39N□-S | 39 | 10/5/2 | 250 | 60 | 500 | 2000 | 0.29 | 500 | White |
| CS0805-43N□-S | 43 | 10/5/2 | 200 | 60 | 500 | 1650 | 0.34 | 500 | Yellow |
| CS0805-47N□-S | 47 | 10/5/2 | 200 | 60 | 500 | 1650 | 0.31 | 500 | Black |
| CS0805-56N□-S | 56 | 10/5/2 | 200 | 60 | 500 | 1550 | 0.34 | 500 | Brown |
| CS0805-68N□-S | 68 | 10/5/2 | 200 | 60 | 500 | 1450 | 0.38 | 500 | Red |
| CS0805-82N□-S | 82 | 10/5/2 | 150 | 65 | 500 | 1300 | 0.42 | 400 | Orange |
| CS0805-91N□-S | 91 | 10/5/2 | 150 | 65 | 500 | 1200 | 0.48 | 400 | Black |
| CS0805-R10□-S | 100 | 10/5/2 | 150 | 65 | 500 | 1200 | 0.46 | 400 | Yellow |
| CS0805-R11□-S | 110 | 10/5/2 | 150 | 50 | 250 | 1000 | 0.48 | 400 | Brown |
| CS0805-R12□-S | 120 | 10/5/2 | 150 | 50 | 250 | 1100 | 0.51 | 400 | Green |
| CS0805-R15□-S | 150 | 10/5/2 | 100 | 50 | 250 | 920 | 0.56 | 400 | Blue |
| CS0805-R18□-S | 180 | 10/5/2 | 100 | 50 | 250 | 870 | 0.64 | 400 | Violet |
| CS0805-R20□-S | 200 | 10/5/2 | 100 | 50 | 250 | 860 | 0.68 | 400 | Red |
| CS0805-R22□-S | 220 | 10/5/2 | 100 | 50 | 250 | 850 | 0.70 | 400 | Gray |
| CS0805-R24□-S | 240 | 10/5/2 | 100 | 44 | 250 | 690 | 1.00 | 350 | Red |
| CS0805-R25□-S | 250 | 10/5/2 | 100 | 45 | 250 | 660 | 1.20 | 350 | Yellow |
| CS0805-R27□-S | 270 | 10/5/2 | 100 | 48 | 250 | 650 | 1.00 | 350 | White |
| CS0805-R33□-S | 330 | 10/5/2 | 100 | 48 | 250 | 600 | 1.40 | 310 | Black |
| CS0805-R39□-S | 390 | 10/5/2 | 100 | 48 | 250 | 560 | 1.50 | 290 | Brown |
| CS0805-R47□-S | 470 | 10/5/2 | 50 | 33 | 100 | 375 | 1.76 | 250 | Violet |
| CS0805-R56□-S | 560 | 10/5/2 | 25 | 23 | 50 | 340 | 1.90 | 230 | Orange |
| CS0805-R62□-S | 620 | 10/5/2 | 25 | 23 | 50 | 220 | 2.20 | 210 | White |
| CS0805-R68□-S | 680 | 10/5/2 | 25 | 23 | 50 | 188 | 2.20 | 190 | Green |
| CS0805-R82□-S | 820 | 10/5/2 | 25 | 23 | 50 | 215 | 2.35 | 180 | Blue |
| CS0805-1R0□-S | 1000 | 10/5/2 | 25 | 20 | 60 | 100 | 2.50 | 170 | Violet |

• When ordering, please specify tolerance and packaging code. Ex : CS0805-R10□-S

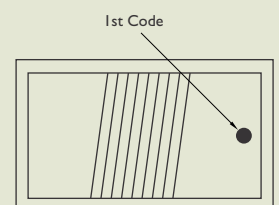
Tolerance : G = 2% , J = 5% , K = 10% , M = 20%

Packaging : Clear Tape and Reel (Standard)

• L, Q, RDC : HP4287A

• SRF : E4991A / HP8753D

• Operating Temperature Range -40°C to 125°C



Color Coding



ELECTRICAL CHARACTERISTICS CSI008 SERIES

| PART NO. | INDUCTANCE (nH) | TOLERANCE (±%) | TEST FREQUENCY (MHz) | Q Min. | TEST FREQUENCY (MHz) | SRF (MHz) Min. | DC RESISTANCE (Ω) Max. | RATED CURRENT (mA) Max. | COLOR CODING | | |
|---------------|--------------------|-------------------|----------------------------|-----------|----------------------------|----------------------|------------------------------|-------------------------------|-----------------|-----------------|-----------------|
| | | | | | | | | | 1 st | 2 nd | 3 rd |
| CSI008-10N□-S | 10 | 10/5/2 | 50 | 50 | 500 | 4100 | 0.08 | 1000 | Brown | Black | Black |
| CSI008-12N□-S | 12 | 10/5/2 | 50 | 50 | 500 | 3300 | 0.09 | 1000 | Brown | Red | Black |
| CSI008-15N□-S | 15 | 10/5/2 | 50 | 50 | 500 | 2500 | 0.10 | 1000 | Brown | Green | Black |
| CSI008-18N□-S | 18 | 10/5/2 | 50 | 50 | 350 | 2500 | 0.11 | 1000 | Brown | Gray | Black |
| CSI008-22N□-S | 22 | 10/5/2 | 50 | 55 | 350 | 2400 | 0.12 | 1000 | Red | Red | Black |
| CSI008-27N□-S | 27 | 10/5/2 | 50 | 55 | 350 | 1600 | 0.13 | 1000 | Red | Violet | Black |
| CSI008-33N□-S | 33 | 10/5/2 | 50 | 60 | 350 | 1600 | 0.14 | 1000 | Orange | Orange | Black |
| CSI008-39N□-S | 39 | 10/5/2 | 50 | 60 | 350 | 1500 | 0.15 | 1000 | Orange | White | Black |
| CSI008-47N□-S | 47 | 10/5/2 | 50 | 65 | 350 | 1500 | 0.16 | 1000 | Yellow | Violet | Black |
| CSI008-56N□-S | 56 | 10/5/2 | 50 | 65 | 350 | 1300 | 0.18 | 1000 | Green | Blue | Black |
| CSI008-68N□-S | 68 | 10/5/2 | 50 | 65 | 350 | 1300 | 0.20 | 1000 | Blue | Gray | Black |
| CSI008-82N□-S | 82 | 10/5/2 | 50 | 60 | 350 | 1000 | 0.22 | 1000 | Gray | Red | Black |
| CSI008-R10□-S | 100 | 10/5/2 | 25 | 60 | 350 | 1000 | 0.56 | 650 | Brown | Black | Brown |
| CSI008-R12□-S | 120 | 10/5/2 | 25 | 60 | 350 | 950 | 0.63 | 650 | Brown | Red | Brown |
| CSI008-R15□-S | 150 | 10/5/2 | 25 | 45 | 100 | 850 | 0.70 | 580 | Brown | Green | Brown |
| CSI008-R18□-S | 180 | 10/5/2 | 25 | 45 | 100 | 750 | 0.77 | 620 | Brown | Gray | Brown |
| CSI008-R22□-S | 220 | 10/5/2 | 25 | 45 | 100 | 700 | 0.84 | 500 | Red | Red | Brown |
| CSI008-R27□-S | 270 | 10/5/2 | 25 | 45 | 100 | 600 | 0.91 | 500 | Red | Violet | Brown |
| CSI008-R33□-S | 330 | 10/5/2 | 25 | 45 | 100 | 570 | 1.05 | 450 | Orange | Orange | Brown |
| CSI008-R39□-S | 390 | 10/5/2 | 25 | 45 | 100 | 500 | 1.12 | 470 | Orange | White | Brown |
| CSI008-R47□-S | 470 | 10/5/2 | 25 | 45 | 100 | 450 | 1.19 | 470 | Yellow | Violet | Brown |
| CSI008-R56□-S | 560 | 10/5/2 | 25 | 45 | 100 | 415 | 1.33 | 400 | Green | Blue | Brown |
| CSI008-R62□-S | 620 | 10/5/2 | 25 | 45 | 100 | 375 | 1.40 | 300 | Blue | Red | Brown |
| CSI008-R68□-S | 680 | 10/5/2 | 25 | 45 | 100 | 375 | 1.47 | 400 | Blue | Gray | Brown |
| CSI008-R75□-S | 750 | 10/5/2 | 25 | 45 | 100 | 360 | 1.54 | 360 | Violet | Green | Brown |
| CSI008-R82□-S | 820 | 10/5/2 | 25 | 45 | 100 | 350 | 1.61 | 400 | Gray | Red | Brown |
| CSI008-R91□-S | 910 | 10/5/2 | 25 | 35 | 50 | 320 | 1.68 | 380 | White | Brown | Brown |
| CSI008-1R0□-S | 1000 | 10/5/2 | 25 | 35 | 50 | 290 | 1.75 | 370 | Brown | Black | Red |
| CSI008-1R2□-S | 1200 | 10/5/2 | 7.9 | 35 | 50 | 250 | 2.0 | 310 | Brown | Red | Red |
| CSI008-1R5□-S | 1500 | 10/5/2 | 7.9 | 28 | 50 | 200 | 2.3 | 330 | Brown | Green | Red |
| CSI008-1R8□-S | 1800 | 10/5/2 | 7.9 | 28 | 50 | 160 | 2.6 | 300 | Brown | Gray | Red |
| CSI008-2R2□-S | 2200 | 10/5/2 | 7.9 | 28 | 50 | 160 | 2.8 | 280 | Red | Red | Red |
| CSI008-2R7□-S | 2700 | 10/5/2 | 7.9 | 22 | 25 | 140 | 3.2 | 290 | Red | Violet | Red |
| CSI008-3R3□-S | 3300 | 10/5/2 | 7.9 | 22 | 25 | 110 | 3.4 | 290 | Orange | Orange | Red |
| CSI008-3R9□-S | 3900 | 10/5/2 | 7.9 | 20 | 25 | 100 | 3.6 | 260 | Orange | White | Red |
| CSI008-4R7□-S | 4700 | 10/5/2 | 7.9 | 20 | 25 | 90 | 4.0 | 260 | Yellow | Violet | Red |
| CSI008-5R6□-S | 5600 | 10/5/2 | 7.9 | 16 | 7.9 | 20 | 4.0 | 240 | Green | Blue | Red |
| CSI008-6R8□-S | 6800 | 10/5/2 | 7.9 | 18 | 7.9 | 40 | 4.9 | 200 | Blue | Gray | Red |
| CSI008-8R2□-S | 8200 | 10/5/2 | 7.9 | 18 | 7.9 | 25 | 6.0 | 170 | Gray | Red | Red |
| CSI008-100□-S | 10000 | 10/5/2 | 7.9 | 18 | 7.9 | 25 | 8.0 | 150 | Brown | Black | Orange |

• When ordering, please specify tolerance and packaging code. Ex : CSI008-3R3□-S

Tolerance : G = 2% , J = 5% , K = 10%

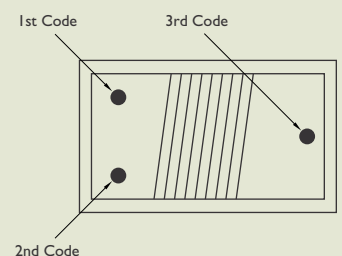
Packaging : Clear Tape and Reel (Standard)

• L, Q, RDC : HP4287A

• SRF : E4991A / HP8753D

• RDC : Digital Multimeter SC-7401

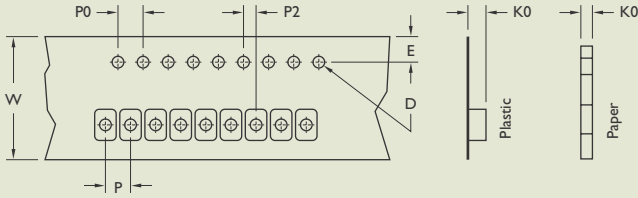
• Operating Temperature Range -40°C to 125°C



Color Coding



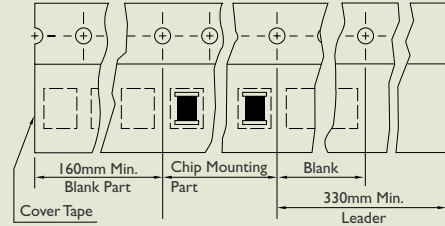
TAPE DIMENSIONS



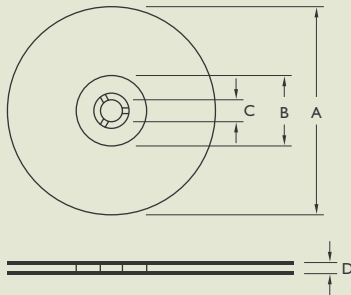
TAPE MATERIAL

Carrier Tape : Polystyrene

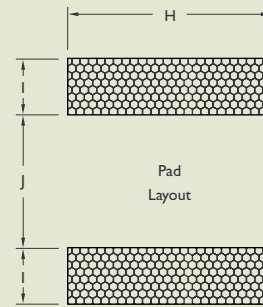
Cover Type : Polyethylene



REEL DIMENSIONS



RECOMMENDED PATTERN



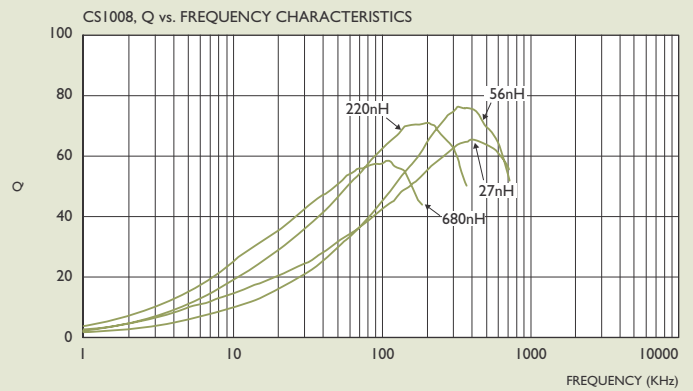
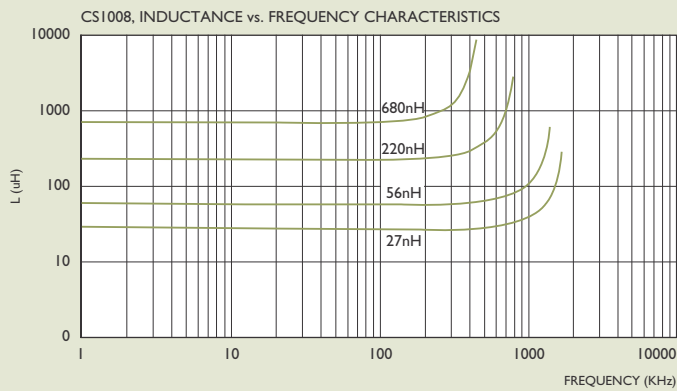
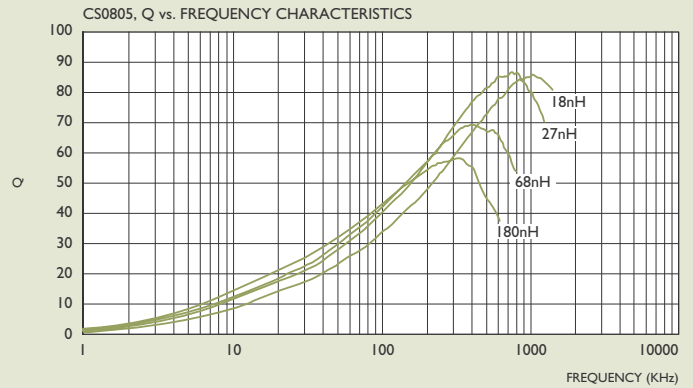
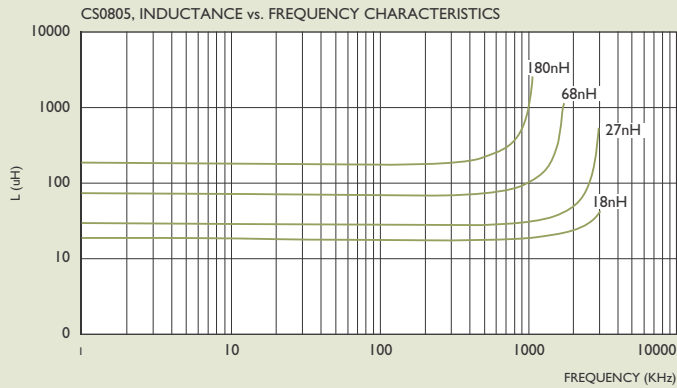
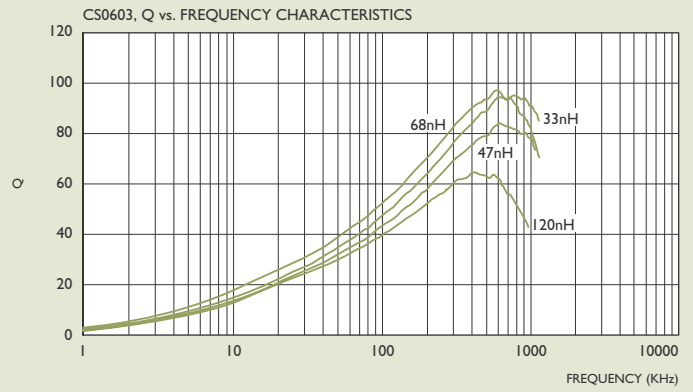
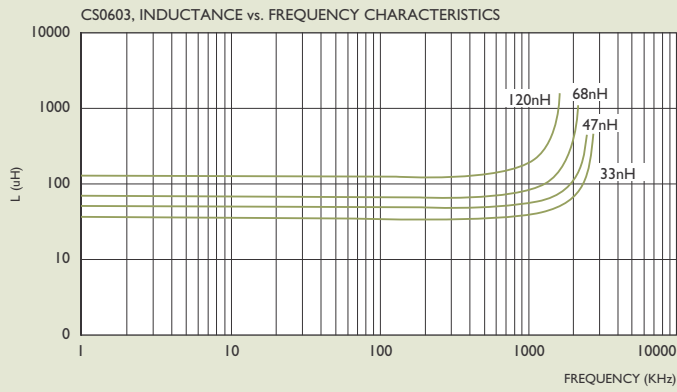
Dimensions : mm

| TYPE | TAPE DIMENSIONS | | | | | | | REEL DIMENSIONS | | | | RECOMMENDED PATTERN | | | QUANTITY /REEL | |
|--------|-----------------|------|------|---|---|----|----|-----------------|----|----|-----|---------------------|-------|-------|----------------|------|
| | K0 | D | E | W | P | P0 | P2 | A | B | C | D | UNIT | H | I | | J |
| CS0603 | 1.15 | 1.83 | 0.23 | 8 | 4 | 4 | 2 | 178 | 60 | 12 | 1.5 | in | 0.040 | 0.025 | 0.025 | 4000 |
| | | | | | | | | | | | | mm | 1.02 | 0.64 | 0.64 | |
| CS0805 | 1.85 | 2.45 | 0.23 | 8 | 4 | 4 | 2 | 178 | 60 | 12 | 1.5 | in | 0.07 | 0.04 | 0.03 | 2000 |
| | | | | | | | | | | | | mm | 1.78 | 1.02 | 0.76 | |
| CS1008 | 2.70 | 2.95 | 0.23 | 8 | 4 | 4 | 2 | 178 | 60 | 12 | 1.5 | in | 0.10 | 0.04 | 0.05 | 2000 |
| | | | | | | | | | | | | mm | 2.54 | 1.02 | 1.27 | |



TYPICAL ELECTRICAL CHARACTERISTICS

Test Instruments : E4991A Impedance / Material Analyzer



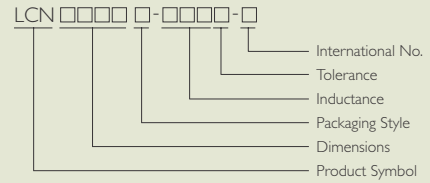
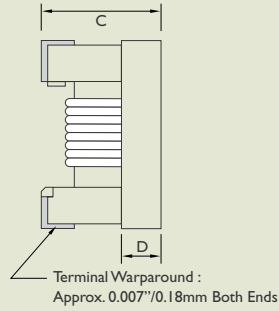
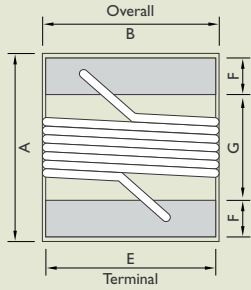


WOUND CHIP INDUCTORS LCN0603 SERIES

Ceramic body and wire wound construction provide highest SRFs available in 0603 size.

These ultra-compact inductors provided exceptional Q values, even at high frequencies.

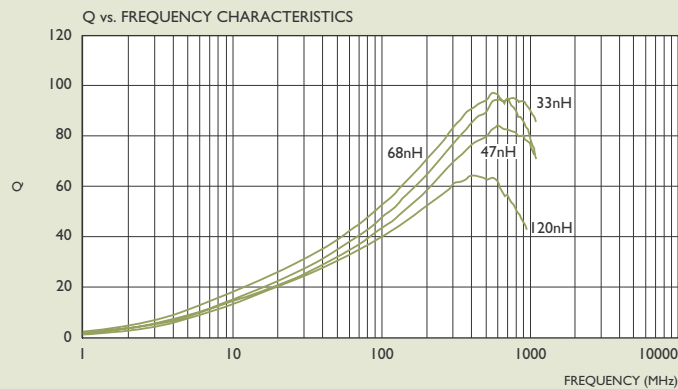
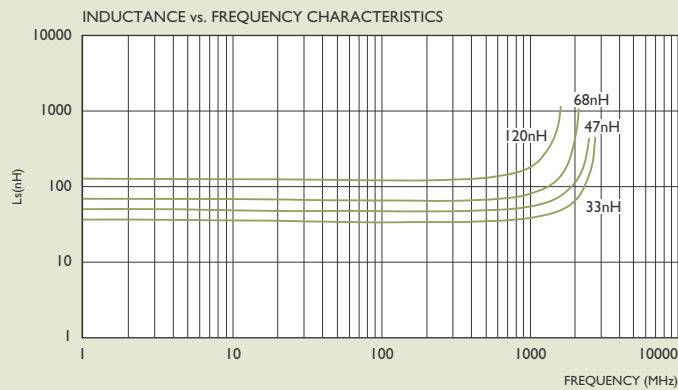
Product Identification



Dimensions : mm

| UNIT | A Max. | B Max. | C Max. | D Ref. | E | F | G |
|------|-----------|-----------|-----------|-----------|-------|-------|-------|
| in | 0.071 | 0.044 | 0.040 | 0.015 | 0.030 | 0.013 | 0.034 |
| mm | 2.35 | 1.73 | 1.02 | 0.35 | 1.02 | 0.44 | 1.27 |

Test Instruments : E4991A Impedance / Material Analyzer





ELECTRICAL CHARACTERISTICS LCN0603 SERIES

| PART NO. | INDUCTANCE at 250MHz (nH) | TOLERANCE (%) | Q Min. | SRF (MHz) Min. | DC RESISTANCE (Ω) Max. | RATED CURRENT (mA) Max. | 900MHz | | 1.7 GHz | | COLOR |
|-----------------|---------------------------------|------------------|-----------|----------------------|------------------------------|-------------------------------|-----------|-----------|-----------|-----------|--------|
| | | | | | | | L TYPE | Q TYPE | L TYPE | Q TYPE | |
| LCN0603T-1N6□-S | 1.6 | 10 | 24 | 12500 | 0.030 | 700 | 1.67 | 49 | 1.65 | 63 | Red |
| LCN0603T-1N8□-S | 1.8 | 10 | 16 | 12500 | 0.045 | 700 | 1.63 | 35 | 1.66 | 50 | Black |
| LCN0603T-3N6□-S | 3.6 | 10 | 22 | 5900 | 0.063 | 700 | 3.72 | 53 | 3.71 | 65 | Red |
| LCN0603T-3N9□-S | 3.9 | 10 | 22 | 6900 | 0.080 | 700 | 3.95 | 49 | 3.96 | 67 | Brown |
| LCN0603T-4N3□-S | 4.3 | 10 | 22 | 5900 | 0.063 | 700 | 4.32 | 50 | 4.33 | 70 | Orange |
| LCN0603T-4N7□-S | 4.7 | 10 | 20 | 5800 | 0.116 | 700 | 4.72 | 47 | 4.75 | 57 | Violet |
| LCN0603T-5N1□-S | 5.1 | 10 | 20 | 5700 | 0.140 | 700 | 4.93 | 47 | 4.95 | 56 | Green |
| LCN0603T-6N3□-S | 6.3 | 10 | 20 | 5700 | 0.140 | 700 | 5.5 | 47 | 6.1 | 60 | White |
| LCN0603T-6N8□-S | 6.8 | 10 | 27 | 5800 | 0.110 | 700 | 6.75 | 60 | 7.1 | 81 | Red |
| LCN0603T-7N5□-S | 7.5 | 10 | 28 | 4800 | 0.106 | 700 | 7.70 | 60 | 7.82 | 65 | Brown |
| LCN0603T-8N2□-S | 8.2 | 10 | 28 | 4700 | 0.109 | 700 | 8.30 | 60 | 8.50 | 60 | White |
| LCN0603T-8N7□-S | 8.7 | 5 | 28 | 4600 | 0.109 | 700 | 8.86 | 62 | 9.32 | 58 | Yellow |
| LCN0603T-9N5□-S | 9.5 | 5 | 28 | 5400 | 0.135 | 700 | 9.70 | 59 | 9.92 | 61 | Blue |
| LCN0603T-10N□-S | 10 | 5 | 31 | 4800 | 0.130 | 700 | 10 | 66 | 10.6 | 83 | Orange |
| LCN0603T-11N□-S | 11 | 5 | 33 | 4000 | 0.086 | 700 | 11 | 53 | 11.5 | 56 | Gray |
| LCN0603T-12N□-S | 12 | 5 | 35 | 4000 | 0.130 | 700 | 12.3 | 72 | 13.5 | 83 | Yellow |
| LCN0603T-15N□-S | 15 | 5 | 35 | 4000 | 0.170 | 700 | 15.4 | 64 | 16.8 | 89 | Green |
| LCN0603T-16N□-S | 16 | 5 | 34 | 3300 | 0.104 | 700 | 16.2 | 55 | 17.3 | 52 | White |
| LCN0603T-18N□-S | 18 | 5 | 35 | 3100 | 0.170 | 700 | 18.7 | 70 | 21.4 | 69 | Blue |
| LCN0603T-22N□-S | 22 | 5 | 38 | 3000 | 0.190 | 700 | 22.8 | 73 | 26.1 | 71 | Violet |
| LCN0603T-24N□-S | 24 | 5 | 37 | 2650 | 0.135 | 700 | 24.5 | 45 | 28.7 | 39 | Black |
| LCN0603T-27N□-S | 27 | 5 | 40 | 2800 | 0.220 | 600 | 29.2 | 74 | 34.6 | 65 | Gray |
| LCN0603T-30N□-S | 30 | 5 | 37 | 2250 | 0.144 | 600 | 31.4 | 47 | 39.9 | 28 | Brown |
| LCN0603T-33N□-S | 33 | 5 | 40 | 2300 | 0.220 | 600 | 36 | 67 | 49.5 | 42 | White |
| LCN0603T-36N□-S | 36 | 5 | 38 | 2080 | 0.250 | 600 | 39.4 | 47 | 52.7 | 24 | Red |
| LCN0603T-39N□-S | 39 | 5 | 40 | 2200 | 0.250 | 600 | 42.7 | 60 | 60.2 | 40 | Black |
| LCN0603T-43N□-S | 43 | 5 | 39 | 2000 | 0.280 | 600 | 47 | 44 | 64.9 | 21 | Orange |
| LCN0603T-47N□-S | 47 * | 5 | 38 | 2000 | 0.280 | 600 | 52.2 | 62 | 77.2 | 35 | Brown |
| LCN0603T-56N□-S | 56 * | 5 | 38 | 1900 | 0.310 | 600 | 62.5 | 56 | 97 | 26 | Red |
| LCN0603T-68N□-S | 68 * | 5 | 37 | 1700 | 0.340 | 600 | 80.5 | 54 | 168 | 21 | Orange |
| LCN0603T-72N□-S | 72 ** | 5 | 34 | 1700 | 0.490 | 400 | 82 | 53 | 135 | 20 | Yellow |
| LCN0603T-82N□-S | 82 ** | 5 | 34 | 1700 | 0.540 | 400 | 96.2 | 54 | 177 | 21 | Green |
| LCN0603T-R10□-S | 100 *** | 5 | 34 | 1400 | 0.580 | 400 | 124 | 49 | | | Blue |
| LCN0603T-R11□-S | 110 *** | 5 | 32 | 1350 | 0.610 | 300 | 138 | 43 | | | Violet |
| LCN0603T-R12□-S | 120 ** | 5 | 32 | 1300 | 0.650 | 300 | 166 | 39 | | | Gray |
| LCN0603T-R15□-S | 150 ** | 5 | 28 | 990 | 0.920 | 280 | 250 | 25 | | | White |
| LCN0603T-R18□-S | 180 *** | 5 | 25 | 990 | 1.250 | 240 | 305 | 22 | | | Black |
| LCN0603T-R22□-S | 220 *** | 5 | 25 | 900 | 2.100 | 200 | 480 | 8 | | | Brown |
| LCN0603T-R27□-S | 270 *** | 5 | 24 | 900 | 2.300 | 170 | 980 | 4 | | | Red |

Note : * at 200MHz ** at 150MHz *** at 100MHz

When ordering, please specify tolerance and packaging code.

Ex : LCN0603T-R12J-S Tolerance : G = ±2%, J = 5%, K = 10%, M = 20%

Packaging : Clear Tape and Reel (Standard)

L, Q : HP4287A SRF : HP8753D / E4991A

RDC : Digital Multimeter SC-7401/4291A For 15°C Rise

Operating Temperature Range -40°C to 125°C



WOUND CHIP INDUCTORS LCN0805 SERIES

Ceramic body and wire wound construction provide highest SRFs available in 0805 size.

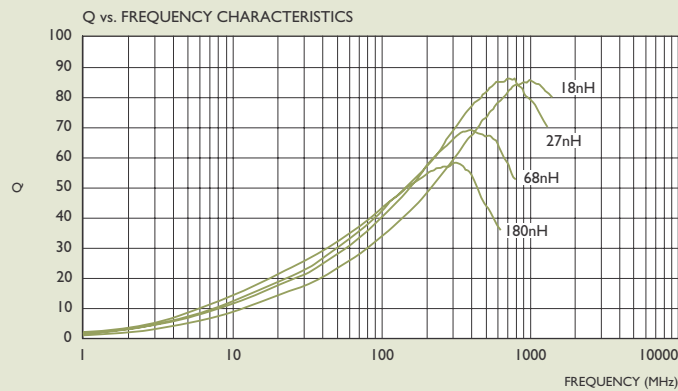
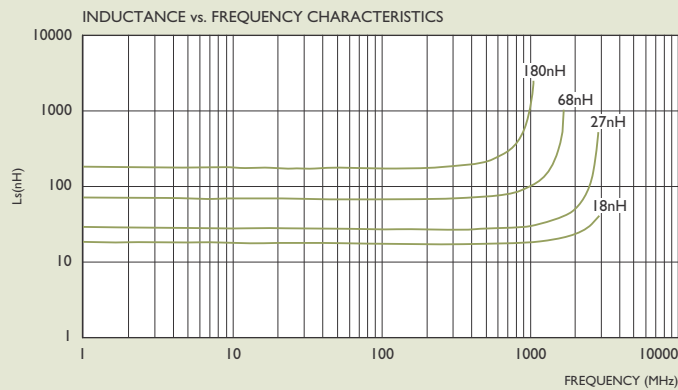
These ultra-compact inductors provided exceptional Q values, even at high frequencies.

Color Coding



| UNIT | A Max. | B Max. | C Max. | D Ref. | E | F | G |
|------|-----------|-----------|-----------|-----------|------|------|------|
| in | 0.09 | 0.068 | 0.06 | 0.02 | 0.05 | 0.02 | 0.04 |
| mm | 2.29 | 1.73 | 1.52 | 0.51 | 1.27 | 0.51 | 1.02 |

Test Instruments : E4991A Impedance / Material Analyzer





ELECTRICAL CHARACTERISTICS LCN0805 SERIES

| PART NO. | INDUCTANCE at 250MHz (nH) | TOLERANCE (±%) | Q Min. | TEST FREQUENCY (MHz) | SRF (MHz) Min. | DC RESISTANCE (Ω) Max. | RATED CURRENT (mA) Max. | COLOR CODING |
|-----------------|---------------------------------|-------------------|-----------|----------------------------|----------------------|------------------------------|-------------------------------|-----------------|
| LCN0805T-2N8□-S | 2.8 | 10 | 70 | 1500 | 7900 | 0.06 | 800 | Gray |
| LCN0805T-3N0□-S | 3.0 | 10 | 65 | 1500 | 7900 | 0.06 | 800 | White |
| LCN0805T-3N3□-S | 3.3 | 10 | 50 | 1500 | 7900 | 0.08 | 600 | Black |
| LCN0805T-5N6□-S | 5.6 | 10 | 65 | 1000 | 5500 | 0.08 | 600 | Orange |
| LCN0805T-6N8□-S | 6.8 | 10 | 50 | 1000 | 5500 | 0.11 | 600 | Brown |
| LCN0805T-7N5□-S | 7.5 | 10 | 50 | 1000 | 4500 | 0.14 | 600 | Green |
| LCN0805T-8N2□-S | 8.2 | 10 | 50 | 1000 | 4700 | 0.12 | 600 | Red |
| LCN0805T-10N□-S | 10 | 10 | 60 | 500 | 4200 | 0.10 | 600 | Blue |
| LCN0805T-12N□-S | 12 | 10 | 50 | 500 | 4000 | 0.15 | 600 | Orange |
| LCN0805T-15N□-S | 15 | 5 | 50 | 500 | 3400 | 0.17 | 600 | Yellow |
| LCN0805T-18N□-S | 18 | 5 | 50 | 500 | 3300 | 0.20 | 600 | Green |
| LCN0805T-22N□-S | 22 | 5 | 55 | 500 | 2600 | 0.22 | 500 | Blue |
| LCN0805T-24N□-S | 24 | 5 | 50 | 500 | 2000 | 0.22 | 500 | Gray |
| LCN0805T-27N□-S | 27 | 5 | 55 | 500 | 2500 | 0.25 | 500 | Violet |
| LCN0805T-33N□-S | 33 | 5 | 60 | 500 | 2050 | 0.27 | 500 | Gray |
| LCN0805T-36N□-S | 36 | 5 | 55 | 500 | 1700 | 0.27 | 500 | Orange |
| LCN0805T-39N□-S | 39 | 5 | 60 | 500 | 2000 | 0.29 | 500 | White |
| LCN0805T-43N□-S | 43 * | 5 | 60 | 500 | 1650 | 0.34 | 500 | Yellow |
| LCN0805T-47N□-S | 47 * | 5 | 60 | 500 | 1650 | 0.31 | 500 | Black |
| LCN0805T-56N□-S | 56 * | 5 | 60 | 500 | 1550 | 0.34 | 500 | Brown |
| LCN0805T-68N□-S | 68 * | 5 | 60 | 500 | 1450 | 0.38 | 500 | Red |
| LCN0805T-82N□-S | 82 ** | 5 | 65 | 500 | 1300 | 0.42 | 400 | Orange |
| LCN0805T-91N□-S | 91 ** | 5 | 65 | 500 | 1200 | 0.48 | 400 | Black |
| LCN0805T-R10□-S | 100 ** | 5 | 65 | 500 | 1200 | 0.46 | 400 | Yellow |
| LCN0805T-R11□-S | 110 ** | 5 | 50 | 250 | 1000 | 0.48 | 400 | Brown |
| LCN0805T-R12□-S | 120 ** | 5 | 50 | 250 | 1100 | 0.51 | 400 | Green |
| LCN0805T-R15□-S | 150 *** | 5 | 50 | 250 | 920 | 0.56 | 400 | Blue |
| LCN0805T-R18□-S | 180 *** | 5 | 50 | 250 | 870 | 0.64 | 400 | Violet |
| LCN0805T-R20□-S | 200 *** | 5 | 50 | 250 | 860 | 0.68 | 400 | Red |
| LCN0805T-R22□-S | 220 *** | 5 | 50 | 250 | 850 | 0.70 | 400 | Gray |
| LCN0805T-R24□-S | 240 *** | 5 | 44 | 250 | 690 | 1.00 | 350 | Red |
| LCN0805T-R25□-S | 250 *** | 5 | 45 | 250 | 660 | 1.20 | 350 | Yellow |
| LCN0805T-R27□-S | 270 *** | 5 | 48 | 250 | 650 | 1.30 | 350 | White |
| LCN0805T-R33□-S | 330 *** | 5 | 48 | 250 | 600 | 1.65 | 310 | Black |
| LCN0805T-R39□-S | 390 *** | 5 | 25 | 250 | 400 | 1.80 | 290 | Brown |
| LCN0805T-R47□-S | 470 **** | 5 | 33 | 100 | 400 | 2.00 | 250 | Violet |
| LCN0805T-R56□-S | 560 ***** | 5 | 20 | 50 | 200 | 2.10 | 230 | Orange |
| LCN0805T-R68□-S | 680 ***** | 5 | 18 | 50 | 130 | 2.30 | 190 | Green |
| LCN0805T-R82□-S | 820 ***** | 5 | 15 | 50 | 100 | 2.50 | 180 | Blue |

Note : * at 200MHz ** at 150MHz *** at 100MHz **** at 50MHz ***** at 25MHz

When ordering, please specify tolerance and packaging code.

Ex : LCN0805T-R10N□-S

Tolerance : J = 5% , K = 10% , M = 20%

Packaging : Clear Tape and Reel (Standard)

L, Q, RDC : HP4287A

SRF : HP8753D / E4991A

Operating Temperature Range -40°C to +125°C



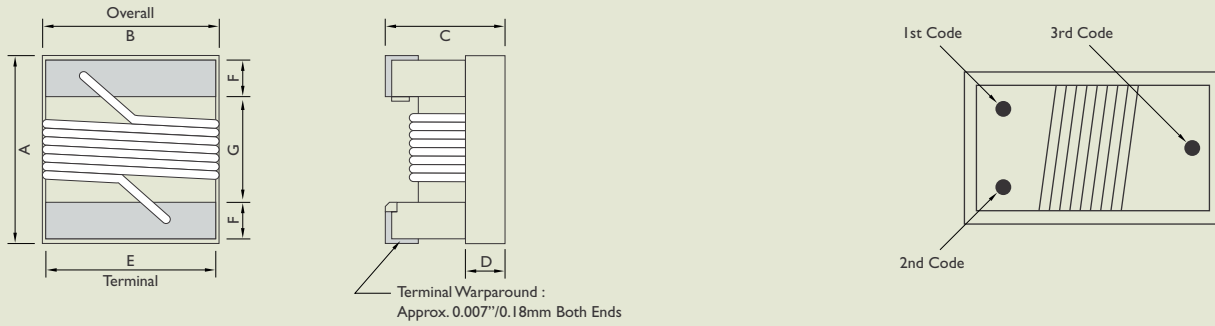
WOUND CHIP INDUCTORS LCN1008 SERIES

"LCN" series chip inductors have been designed especially for the needs of today's high frequency designer.

Their ceramic construction delivers the highest possible SRFs as well as excellent Q values.

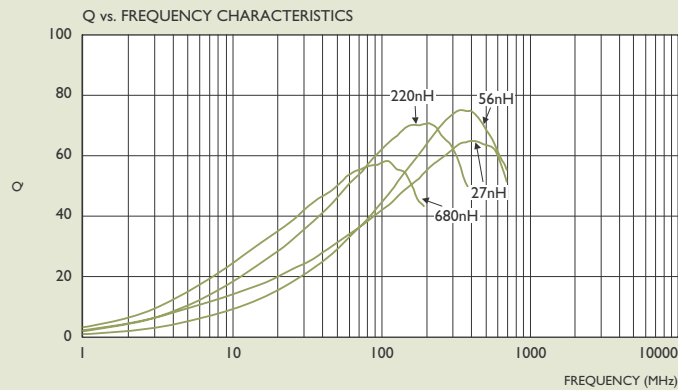
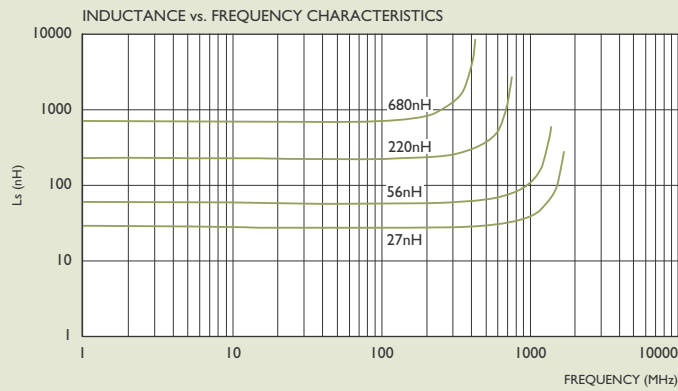
The non-magnetic coil form also assures the utmost in thermal stability, predictability and batch consistency.

Color Coding



| UNIT | A Max. | B Max. | C Max. | D Ref. | E | F | G |
|------|-----------|-----------|-----------|-----------|------|------|------|
| in | 0.115 | 0.11 | 0.08 | 0.02 | 0.08 | 0.02 | 0.06 |
| mm | 2.92 | 2.79 | 2.10 | 0.51 | 2.03 | 0.51 | 1.52 |

Test Instruments : E4991A Impedance / Material Analyzer





ELECTRICAL CHARACTERISTICS LCN1008 SERIES

| PART NO. | INDUCTANCE at 50MHz (nH) | TOLERANCE (±%) | Q Min. | TEST FREQUENCY (MHz) | SRF (MHz) Min. | DC RESISTANCE (Ω) Max. | RATED CURRENT (mA) Max. | COLOR CODING | | |
|-----------------|--------------------------------|-------------------|-----------|----------------------------|----------------------|------------------------------|-------------------------------|-----------------|-----------------|-----------------|
| | | | | | | | | 1 st | 2 nd | 3 rd |
| LCN1008T-10NK-S | 10 | 10 | 50 | 500 | 4100 | 0.08 | 1000 | Brown | Black | Black |
| LCN1008T-12NK-S | 12 | 10 | 50 | 500 | 3300 | 0.09 | 1000 | Brown | Red | Black |
| LCN1008T-15NK-S | 15 | 10 | 50 | 500 | 2500 | 0.10 | 1000 | Brown | Green | Black |
| LCN1008T-18NK-S | 18 | 10 | 50 | 350 | 2500 | 0.11 | 1000 | Brown | Gray | Black |
| LCN1008T-22NJ-S | 22 | 5 | 55 | 350 | 2400 | 0.12 | 1000 | Red | Red | Black |
| LCN1008T-27NJ-S | 27 | 5 | 55 | 350 | 1600 | 0.13 | 1000 | Red | Violet | Black |
| LCN1008T-33NJ-S | 33 | 5 | 60 | 350 | 1600 | 0.14 | 1000 | Orange | Orange | Black |
| LCN1008T-39NJ-S | 39 | 5 | 60 | 350 | 1500 | 0.15 | 1000 | Orange | White | Black |
| LCN1008T-47NJ-S | 47 | 5 | 65 | 350 | 1500 | 0.16 | 1000 | Yellow | Violet | Black |
| LCN1008T-56NJ-S | 56 | 5 | 65 | 350 | 1300 | 0.18 | 1000 | Green | Blue | Black |
| LCN1008T-68NJ-S | 68 | 5 | 65 | 350 | 1300 | 0.20 | 1000 | Blue | Gray | Black |
| LCN1008T-82NJ-S | 82 | 5 | 60 | 350 | 1000 | 0.22 | 1000 | Gray | Red | Black |
| LCN1008T-R10J-S | 100 * | 5 | 60 | 350 | 1000 | 0.56 | 650 | Brown | Black | Brown |
| LCN1008T-R12J-S | 120 * | 5 | 60 | 350 | 950 | 0.63 | 650 | Brown | Red | Brown |
| LCN1008T-R15J-S | 150 * | 5 | 45 | 100 | 850 | 0.70 | 580 | Brown | Green | Brown |
| LCN1008T-R18J-S | 180 * | 5 | 45 | 100 | 750 | 0.77 | 620 | Brown | Gray | Brown |
| LCN1008T-R22J-S | 220 * | 5 | 45 | 100 | 700 | 0.84 | 500 | Red | Red | Brown |
| LCN1008T-R27J-S | 270 * | 5 | 45 | 100 | 600 | 0.91 | 500 | Red | Violet | Brown |
| LCN1008T-R33J-S | 330 * | 5 | 45 | 100 | 570 | 1.05 | 450 | Orange | Orange | Brown |
| LCN1008T-R39J-S | 390 * | 5 | 45 | 100 | 500 | 1.12 | 470 | Orange | White | Brown |
| LCN1008T-R47J-S | 470 * | 5 | 45 | 100 | 450 | 1.19 | 470 | Yellow | Violet | Brown |
| LCN1008T-R56J-S | 560 * | 5 | 45 | 100 | 415 | 1.33 | 400 | Green | Blue | Brown |
| LCN1008T-R62J-S | 620 * | 5 | 45 | 100 | 375 | 1.40 | 300 | Blue | Red | Brown |
| LCN1008T-R68J-S | 680 * | 5 | 45 | 100 | 375 | 1.47 | 400 | Blue | Gray | Brown |
| LCN1008T-R75J-S | 750 * | 5 | 45 | 100 | 360 | 1.54 | 360 | Violet | Green | Brown |
| LCN1008T-R82J-S | 820 * | 5 | 45 | 100 | 350 | 1.61 | 400 | Gray | Red | Brown |
| LCN1008T-R91J-S | 910 * | 5 | 35 | 50 | 320 | 1.68 | 380 | White | Brown | Brown |
| LCN1008T-1R0J-S | 1000 ** | 5 | 35 | 50 | 220 | 1.75 | 370 | Brown | Black | Red |
| LCN1008T-1R2J-S | 1200 ** | 5 | 35 | 50 | 186 | 2.0 | 310 | Brown | Red | Red |
| LCN1008T-1R5J-S | 1500 ** | 5 | 28 | 50 | 200 | 2.3 | 330 | Brown | Green | Red |
| LCN1008T-1R8J-S | 1800 ** | 5 | 25 | 50 | 170 | 2.6 | 300 | Brown | Gray | Red |
| LCN1008T-2R2J-S | 2200 ** | 5 | 20 | 50 | 110 | 2.8 | 280 | Red | Red | Red |
| LCN1008T-2R7J-S | 2700 ** | 5 | 15 | 25 | 140 | 3.2 | 290 | Red | Violet | Red |
| LCN1008T-3R3J-S | 3300 ** | 5 | 15 | 25 | 100 | 3.4 | 290 | Orange | Orange | Red |
| LCN1008T-3R9J-S | 3900 ** | 5 | 15 | 25 | 100 | 3.6 | 260 | Orange | White | Red |
| LCN1008T-4R7J-S | 4700 ** | 5 | 13 | 25 | 90 | 4.0 | 260 | Yellow | Violet | Red |
| LCN1008T-5R6J-S | 5600 ** | 5 | 16 | 7.9 | 20 | 4.0 | 240 | Green | Yellow | Red |
| LCN1008T-6R8J-S | 6800 ** | 5 | 18 | 7.9 | 40 | 4.9 | 200 | Yellow | Gray | Red |
| LCN1008T-8R2J-S | 8200 ** | 5 | 18 | 7.9 | 25 | 6.0 | 170 | Gray | Red | Red |

Note : * at 25MHz ** at 7.9MHz

When ordering, please specify tolerance and packaging code.

Ex : LCN0805T-R10NJ-S

Tolerance : G = 2% , J = 5% , K = 10%

Packaging : Clear Tape and Reel (Standard)

L, Q : HP4287A SRF : HP8753D / E4991A

RDC : Digital Multimeter SC-7401

Operating Temperature Range -40°C to +125°C



COLOR CODING

LCN0603 & 0805 Series

Due to the small size of the chip inductor, the component will not be marked with three color dots.

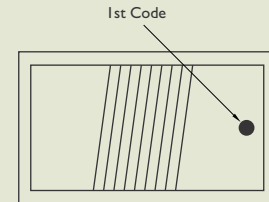
Instead, there is only one color dot which represents an inductance value in nanohenries:

0603 SERIES

| Color | nH |
|--------|-----|
| Black | 1.8 |
| Brown | 3.9 |
| Red | 6.8 |
| Orange | 10 |
| Yellow | 12 |
| Green | 15 |
| Blue | 18 |
| Violet | 22 |
| Gray | 27 |
| White | 33 |
| Black | 39 |
| Brown | 47 |
| Red | 56 |
| Orange | 68 |
| Yellow | 72 |
| Green | 82 |
| Blue | 100 |
| Violet | 110 |
| Gray | 120 |

0805 SERIES

| Color | nH |
|--------|-----|
| Black | 3.3 |
| Brown | 6.8 |
| Red | 8.2 |
| Orange | 12 |
| Yellow | 15 |
| Green | 18 |
| Blue | 22 |
| Violet | 27 |
| Gray | 33 |
| White | 39 |
| Black | 47 |
| Brown | 56 |
| Red | 68 |
| Orange | 82 |
| Yellow | 100 |
| Green | 120 |
| Blue | 150 |
| Violet | 180 |
| Gray | 220 |
| White | 270 |
| Black | 330 |
| Brown | 390 |

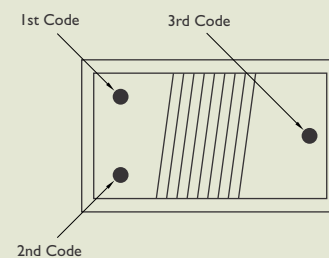


LCN1008 SERIES

These parts are marked with 3 color dots.

Each color dots show inductance in nanohenries.

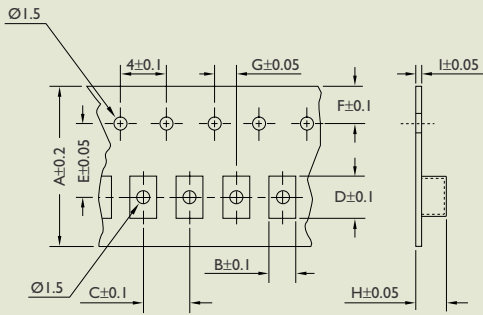
| | |
|------------|------------|
| 0 = Black | 5 = Green |
| 1 = Brown | 6 = Blue |
| 2 = Red | 7 = Violet |
| 3 = Orange | 8 = Gray |
| 4 = Yellow | 9 = White |





TAPE DIMENSIONS

Dimensions : mm

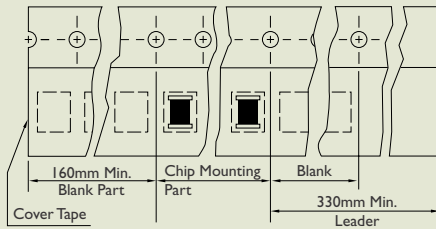


| TAPE | A | B | C | D | E | F | G | H | I |
|---------|---|------|---|------|-----|------|---|------|------|
| LCN0603 | 8 | 1.1 | 4 | 1.75 | 3.5 | 1.75 | 2 | 1.15 | 0.25 |
| LCN0805 | 8 | 1.88 | 4 | 2.38 | 3.5 | 1.75 | 2 | 1.48 | 0.2 |
| LCN1008 | 8 | 2.73 | 4 | 2.88 | 3.5 | 1.75 | 2 | 2.33 | 0.2 |

TAPE MATERIAL

Carrier Tape : Polystyrene

Cover Type : Polyethylene



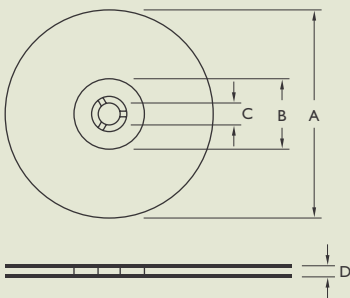
PACKAGING QUANTITY

Dimensions : mm

| TYPE | QUANTITY/REEL |
|---------|---------------|
| LCN0603 | 4000 |
| LCN0805 | 2500 |
| LCN1008 | 2000 |

REEL DIMENSIONS

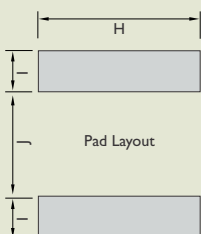
Dimensions : mm



| TAPE | REEL DIMENSIONS | | | |
|---------|-----------------|----|----|---|
| | A | B | C | D |
| LCN0603 | 178 | 60 | 13 | 9 |
| LCN0805 | 178 | 60 | 13 | 9 |
| LCN1008 | 178 | 60 | 13 | 9 |

RECOMMENDED PATTERN

Dimensions : mm



| TYPE | UNIT | H | I | J |
|---------|------|-------|-------|-------|
| LCN0603 | in | 0.040 | 0.025 | 0.025 |
| | mm | 1.02 | 0.64 | 0.64 |
| LCN0805 | in | 0.07 | 0.04 | 0.03 |
| | mm | 1.78 | 1.02 | 0.76 |
| LCN1008 | in | 0.10 | 0.04 | 0.05 |
| | mm | 2.54 | 1.02 | 1.27 |



LCN SERIES RELIABILITY TEST

I-1 MECHANICAL PERFORMANCE

| NO. | ITEM | SPECIFICATION | TEST CONDITIONS |
|-------|------------------------------|--|--|
| I-1-1 | Vibration | Appearance : No Damage L Change : within $\pm 10\%$ Q Change : within $\pm 30\%$ | Test device shall be soldered on the substrate. Oscillation Frequency : 10 to 55 to 10Hz for 1Min. Amplitude : 1.5mm Time : 2Hrs. for each Axis (X, Y & Z), Total 6Hrs. |
| I-1-2 | Resistance to Soldering Heat | Appearance : No Damage | Pre-heating : 150°C, 1Min. Solder Composition : Sn/Pb = 63/37 Solder Temperature : $260 \pm 5^\circ\text{C}$ Immersion Time : 10 ± 1 Sec. |
| I-1-3 | Solderability | The electrodes shall be at least 90% covered with new solder coating. | Pre-heating : 150°C, 1Min. Solder Composition : Sn/Pb = 63/37 Solder Temperature : $230 \pm 5^\circ\text{C}$ Immersion Time : 4 ± 1 Sec. |

I-2 ENVIRONMENTAL PERFORMANCE

| NO. | ITEM | SPECIFICATION | TEST CONDITIONS | | | | | | | | | | | | | | | |
|-------|-----------------------------|--|--|------|------------------|-------------|---|-------------|----|---|------------|---|---|------------|----|---|------------|---|
| I-2-1 | Temperature Cycle | Appearance : No Damage L Change : within $\pm 10\%$ Q Change : within $\pm 30\%$ | One Cycle <table border="1"> <thead> <tr> <th>Step</th> <th>Temperature (°C)</th> <th>Time (Min.)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>-25 ± 3</td> <td>30</td> </tr> <tr> <td>2</td> <td>25 ± 2</td> <td>3</td> </tr> <tr> <td>3</td> <td>85 ± 3</td> <td>30</td> </tr> <tr> <td>4</td> <td>25 ± 2</td> <td>3</td> </tr> </tbody> </table> Total : 100 Cycles Measured after Exposure in the Room Condition for 24Hrs. | Step | Temperature (°C) | Time (Min.) | 1 | -25 ± 3 | 30 | 2 | 25 ± 2 | 3 | 3 | 85 ± 3 | 30 | 4 | 25 ± 2 | 3 |
| Step | Temperature (°C) | Time (Min.) | | | | | | | | | | | | | | | | |
| 1 | -25 ± 3 | 30 | | | | | | | | | | | | | | | | |
| 2 | 25 ± 2 | 3 | | | | | | | | | | | | | | | | |
| 3 | 85 ± 3 | 30 | | | | | | | | | | | | | | | | |
| 4 | 25 ± 2 | 3 | | | | | | | | | | | | | | | | |
| I-2-2 | Humidity Resistance | | Temperature : $40 \pm 2^\circ\text{C}$ Relative Humidity : 90 ~ 95% Time : 1000Hrs. Measured after Exposure in the Room Condition for 24Hrs. | | | | | | | | | | | | | | | |
| I-2-3 | High Temperature Resistance | | Temperature : $85 \pm 3^\circ\text{C}$ Relative Humidity : 20% Applied Current : Rated Current Time : 1000Hrs. Measured after Exposure in the Room Condition for 24Hrs. | | | | | | | | | | | | | | | |
| I-2-4 | Low Temperature Resistance | | Temperature : $-25 \pm 3^\circ\text{C}$ Relative Humidity : 0% Time : 1000Hrs. Measured after Exposure in the Room Condition for 24Hrs. | | | | | | | | | | | | | | | |