

## Cautions and Warnings

Please be noted that this spec is only for reference if you have projects designed with the product number listed in. If you are looking for new project design-in, please find BWCS Series specification/datasheet on Chilisin website. Or you may find our sales contact for more information on old part number at your convenience. Appreciated your attention and understanding.

**Note:** Please be sure to request approval specifications that provide further details of the products. Kindly note that the content of these specifications are subject to change or may be discontinued without prior notice. This product may not be designed/used in medical or high risk applications without Chilisin approval. Please contact our sales department before ordering.

## CS Series



Due to accurate wire winding technology, these chip inductors are designed for filtering, impedance matching, resonance and choke circuits for RF designer. Both standard series custom designs are available.

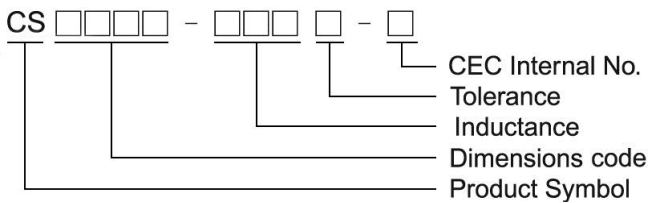
### Features

- RoHS Compliant
- Ceramic body and wire wound construction provide high SRFs
- Exceptional Q values even at high frequencies
- Highest possible SRFs as well as excellent Q values
- The non-magnetic coil form assures utmost thermal stability, predictability and batch consistency
- CS series is standard for RF designers

### Applications

- RF products for cellular phone
- GPS receiver
- Base Station
- Repeater
- Wireless LAN/ mouse/ keyboard/ earphone
- Remote control
- Security system and other RF modules

### Product Identification



### Shape and Dimensions / Recommended Pattern

**CS0201**

**CS0402**



|        |      | A Max | B Max | C Max | D     | E     | F     | G     | H     | I     | J     |
|--------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| CS0201 | inch | 0.023 | 0.018 | 0.018 | -     | 0.015 | 0.004 | -     | 0.018 | 0.007 | 0.009 |
|        | mm   | 0.58  | 0.46  | 0.45  | -     | 0.38  | 0.1   | -     | 0.46  | 0.18  | 0.23  |
| CS0402 | inch | 0.047 | 0.028 | 0.026 | 0.010 | 0.020 | 0.009 | 0.022 | 0.026 | 0.014 | 0.018 |
|        | mm   | 1.19  | 0.70  | 0.66  | 0.25  | 0.51  | 0.23  | 0.56  | 0.66  | 0.36  | 0.46  |

# SMD Wire Wound Ceramic Chip Inductors - CS Series

CS0603/0805/1008

CS1812



Dimensions

|               |      | A                                   | B        | C                                    | D     | E    | F     | G     | H    | I     | J     |
|---------------|------|-------------------------------------|----------|--------------------------------------|-------|------|-------|-------|------|-------|-------|
| <b>CS0603</b> | mm   | 1.6 <sup>+0.2</sup> <sub>-0.1</sub> | 1.02±0.1 | 0.82 <sup>+0.2</sup> <sub>-0.1</sub> | 0.51  | 0.76 | 0.33  | 0.86  | 1.02 | 0.64  | 0.64  |
|               |      | A Max                               | B Max    | C Max                                | D     | E    | F     | G     | H    | I     | J     |
| <b>CS0805</b> | inch | 0.093                               | 0.068    | 0.06                                 | 0.028 | 0.05 | 0.02  | 0.04  | 0.07 | 0.04  | 0.03  |
|               | mm   | 2.35                                | 1.73     | 1.52                                 | 0.71  | 1.27 | 0.51  | 1.02  | 1.78 | 1.02  | 0.76  |
| <b>CS1008</b> | inch | 0.115                               | 0.11     | 0.083                                | 0.046 | 0.08 | 0.02  | 0.06  | 0.10 | 0.04  | 0.05  |
|               | mm   | 2.92                                | 2.79     | 2.1                                  | 1.16  | 2.03 | 0.51  | 1.52  | 2.54 | 1.02  | 1.27  |
| <b>CS1812</b> | inch | 0.197                               | 0.154    | 0.135                                | 0.07  | 0.1  | 0.025 | 0.128 | 0.12 | 0.045 | 0.118 |
|               | mm   | 4.95                                | 3.81     | 3.43                                 | 1.78  | 2.54 | 0.64  | 3.25  | 3.05 | 1.14  | 3.00  |

NOT FOR NEW DESIGN

## SMD Wire Wound Ceramic Chip Inductors - CS Series

### Electrical Characteristics

| Part Number   | Inductance (nH) | Tolerance (±%) | Test Frequency (MHz) | Q Min | SRF (GHz) Typ | RDC (Ω) Max | Irms (mA) Typ |
|---------------|-----------------|----------------|----------------------|-------|---------------|-------------|---------------|
| CS0201-0N5□-S | 0.5             | 10             | 250                  | 4     | 23.5          | 0.02        | 1250          |
| CS0201-0N6□-S | 0.6             | 10             | 250                  | 6     | 24.5          | 0.03        | 1000          |
| CS0201-1N2□-S | 1.2             | 5              | 250                  | 13    | 17.9          | 0.042       | 870           |
| CS0201-1N3□-S | 1.3             | 5              | 250                  | 11    | 17.6          | 0.048       | 820           |
| CS0201-1N4□-S | 1.4             | 5              | 250                  | 14    | 17            | 0.08        | 630           |
| CS0201-1N5□-S | 1.5             | 5              | 250                  | 11    | 17            | 0.09        | 600           |
| CS0201-2N2□-S | 2.2             | 5              | 250                  | 15    | 16.7          | 0.07        | 700           |
| CS0201-2N3□-S | 2.3             | 5              | 250                  | 18    | 16.5          | 0.07        | 670           |
| CS0201-2N4□-S | 2.4             | 5              | 250                  | 13    | 13            | 0.082       | 620           |
| CS0201-2N5□-S | 2.5             | 5              | 250                  | 16    | 12.5          | 0.165       | 440           |
| CS0201-3N3□-S | 3.3             | 5              | 250                  | 14    | 12.8          | 0.08        | 630           |
| CS0201-3N4□-S | 3.4             | 5              | 250                  | 11    | 12.7          | 0.08        | 630           |
| CS0201-3N5□-S | 3.5             | 5              | 250                  | 16    | 12.4          | 0.08        | 630           |
| CS0201-3N6□-S | 3.6             | 5              | 250                  | 18    | 12.5          | 0.105       | 550           |
| CS0201-3N7□-S | 3.7             | 5              | 250                  | 15    | 10.6          | 0.105       | 550           |
| CS0201-3N8□-S | 3.8             | 5              | 250                  | 16    | 10.2          | 0.18        | 420           |
| CS0201-3N9□-S | 3.9             | 5              | 250                  | 12    | 11.2          | 0.24        | 360           |
| CS0201-4N8□-S | 4.8             | 5              | 250                  | 17    | 11            | 0.096       | 570           |
| CS0201-4N9□-S | 4.9             | 5              | 250                  | 18    | 11.7          | 0.13        | 510           |
| CS0201-5N0□-S | 5.0             | 5              | 250                  | 18    | 11.5          | 0.13        | 510           |
| CS0201-5N1□-S | 5.1             | 5              | 250                  | 18    | 11.1          | 0.13        | 510           |
| CS0201-5N2□-S | 5.2             | 5              | 250                  | 18    | 10            | 0.17        | 430           |
| CS0201-5N3□-S | 5.3             | 5              | 250                  | 18    | 10.6          | 0.13        | 510           |
| CS0201-5N4□-S | 5.4             | 5              | 250                  | 18    | 10.2          | 0.13        | 510           |
| CS0201-5N5□-S | 5.5             | 5              | 250                  | 16    | 9.5           | 0.285       | 330           |
| CS0201-6N7□-S | 6.7             | 5              | 250                  | 18    | 6.8           | 0.15        | 460           |
| CS0201-6N8□-S | 6.8             | 5              | 250                  | 18    | 9.5           | 0.15        | 460           |
| CS0201-6N9□-S | 6.9             | 5              | 250                  | 18    | 9.3           | 0.15        | 460           |
| CS0201-7N0□-S | 7.0             | 5              | 250                  | 18    | 6.7           | 0.21        | 390           |
| CS0201-7N1□-S | 7.1             | 5              | 250                  | 18    | 9.5           | 0.25        | 390           |
| CS0201-7N2□-S | 7.2             | 5              | 250                  | 18    | 9.4           | 0.25        | 390           |
| CS0201-7N3□-S | 7.3             | 5              | 250                  | 18    | 9.3           | 0.25        | 390           |
| CS0201-7N4□-S | 7.4             | 5              | 250                  | 18    | 9.1           | 0.25        | 390           |
| CS0201-7N5□-S | 7.5             | 5              | 250                  | 15    | 6.8           | 0.34        | 300           |
| CS0201-7N6□-S | 7.6             | 5              | 250                  | 17    | 9.3           | 0.3         | 340           |
| CS0201-7N7□-S | 7.7             | 5              | 250                  | 17    | 9.2           | 0.3         | 340           |
| CS0201-7N8□-S | 7.8             | 5              | 250                  | 17    | 9.2           | 0.3         | 340           |
| CS0201-7N9□-S | 7.9             | 5              | 250                  | 17    | 9.1           | 0.3         | 340           |
| CS0201-8N0□-S | 8.0             | 5              | 250                  | 17    | 9.2           | 0.3         | 340           |
| CS0201-8N1□-S | 8.1             | 5              | 250                  | 17    | 9.1           | 0.3         | 340           |
| CS0201-8N2□-S | 8.2             | 5              | 250                  | 17    | 6.4           | 0.27        | 340           |

**Note: When ordering, please specify tolerance code. Tolerance : J=±5% , K=±10%**

- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- Irms for a 15°C temperature rise from 25°C ambient with current
- Measure Equipment :  
L & Q : HP4286A/HP4287A/AgilentE4991/Keysight E4982A  
SRF : Agilent HP8753D/Agilent HP8722ES  
RDC : HP4287A/Keysight E4982A  
Irms : HP4284A+HP42841A/HP4285A+HP42841A

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**CHILISIN ELECTRONICS CORP.**

# SMD Wire Wound Ceramic Chip Inductors - CS Series

## Electrical Characteristics

| Part Number   | Inductance (nH) | Tolerance (±%) | Test Frequency (MHz) | Q Min | SRF (GHz) Typ | RDC (Ω) Max | Irms (mA) Typ |
|---------------|-----------------|----------------|----------------------|-------|---------------|-------------|---------------|
| CS0201-8N3□-S | 8.3             | 5              | 250                  | 17    | 8.9           | 0.3         | 340           |
| CS0201-8N4□-S | 8.4             | 5              | 250                  | 15    | 8.9           | 0.38        | 300           |
| CS0201-8N5□-S | 8.5             | 5              | 250                  | 15    | 8.9           | 0.38        | 300           |
| CS0201-8N7□-S | 8.7             | 5              | 250                  | 15    | 6.3           | 0.38        | 300           |
| CS0201-9N0□-S | 9.0             | 5              | 250                  | 15    | 6.4           | 0.38        | 300           |
| CS0201-9N4□-S | 9.4             | 5              | 250                  | 16    | 6.4           | 0.4         | 280           |
| CS0201-9N6□-S | 9.6             | 5              | 250                  | 16    | 6.2           | 0.4         | 280           |
| CS0201-11N□-S | 11              | 5              | 250                  | 16    | 5.7           | 0.44        | 280           |
| CS0201-12N□-S | 12              | 5              | 250                  | 17    | 5.6           | 0.36        | 300           |
| CS0201-13N□-S | 13              | 5              | 250                  | 16    | 6.7           | 0.5         | 270           |
| CS0201-14N□-S | 14              | 5              | 250                  | 16    | 5.1           | 0.5         | 270           |

**Note:** When ordering, please specify tolerance code. Tolerance : J=±5% , K=±10%

- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- Irms for a 15°C temperature rise from 25°C ambient with current
- Measure Equipment :  
 L & Q : HP4286A/HP4287A/AgilentE4991/Keysight E4982A  
 SRF : Agilent HP8753D/Agilent HP8722ES  
 RDC : HP4287A/Keysight E4982A  
 Irms : HP4284A+HP42841A/HP4285A+HP42841A

Typical L vs. Frequency



Typical Q vs. Frequency



## SMD Wire Wound Ceramic Chip Inductors - CS Series

### Electrical Characteristics

| Part Number   | Inductance (nH) | Tolerance (±%)  | Test Frequency (MHz) | Q Min | SRF (GHz) Min | RDC (Ω) Max | Irms (mA) Max |
|---------------|-----------------|-----------------|----------------------|-------|---------------|-------------|---------------|
| CS0402-1N0□-S | 1.0             | 10 / 5 / ±0.1nH | 250                  | 16    | 12.7          | 0.045       | 1360          |
| CS0402-1N2□-S | 1.2             | 10 / 5 / ±0.1nH | 250                  | 10    | 10.4          | 0.140       | 640           |
| CS0402-1N3□-S | 1.3             | 10 / ±0.1nH     | 250                  | 10    | 10.4          | 0.140       | 640           |
| CS0402-1N9□-S | 1.9             | 10 / 5 / ±0.1nH | 250                  | 16    | 11.3          | 0.070       | 1040          |
| CS0402-2N0□-S | 2.0             | 10 / 5 / ±0.1nH | 250                  | 16    | 11.1          | 0.070       | 1040          |
| CS0402-2N2□-S | 2.2             | 10 / 5 / ±0.1nH | 250                  | 19    | 10.8          | 0.070       | 960           |
| CS0402-2N4□-S | 2.4             | 10 / 5 / ±0.1nH | 250                  | 15    | 10.5          | 0.068       | 790           |
| CS0402-2N5□-S | 2.5             | 10 / 5 / ±0.1nH | 250                  | 13    | 10.4          | 0.150       | 640           |
| CS0402-2N7□-S | 2.7             | 10 / 5 / ±0.1nH | 250                  | 16    | 10.4          | 0.120       | 640           |
| CS0402-3N3□-S | 3.3             | 10 / 5 / 3      | 250                  | 19    | 7.00          | 0.066       | 840           |
| CS0402-3N6□-S | 3.6             | 10 / 5 / 3      | 250                  | 19    | 6.80          | 0.066       | 840           |
| CS0402-3N9□-S | 3.9             | 10 / 5 / 3      | 250                  | 19    | 6.00          | 0.066       | 840           |
| CS0402-4N3□-S | 4.3             | 10 / 5 / 3      | 250                  | 18    | 6.00          | 0.091       | 700           |
| CS0402-4N7□-S | 4.7             | 10 / 5 / 3      | 250                  | 15    | 4.77          | 0.130       | 640           |
| CS0402-5N1□-S | 5.1             | 10 / 5 / 3      | 250                  | 20    | 4.80          | 0.083       | 800           |
| CS0402-5N6□-S | 5.6             | 10 / 5 / 3      | 250                  | 20    | 4.80          | 0.083       | 760           |
| CS0402-5N8□-S | 5.8             | 10 / 5 / 3      | 250                  | 20    | 4.80          | 0.083       | 760           |
| CS0402-6N2□-S | 6.2             | 10 / 5 / 3      | 250                  | 20    | 4.80          | 0.083       | 760           |
| CS0402-6N8□-S | 6.8             | 10 / 5 / 3      | 250                  | 20    | 4.80          | 0.083       | 680           |
| CS0402-7N3□-S | 7.3             | 10 / 5 / 3      | 250                  | 20    | 4.80          | 0.12        | 680           |
| CS0402-7N5□-S | 7.5             | 10 / 5 / 3      | 250                  | 22    | 4.80          | 0.10        | 680           |
| CS0402-8N2□-S | 8.2             | 10 / 5 / 3      | 250                  | 22    | 4.40          | 0.10        | 680           |
| CS0402-8N7□-S | 8.7             | 10 / 5 / 3      | 250                  | 18    | 4.10          | 0.20        | 480           |
| CS0402-9N0□-S | 9.0             | 10 / 5 / 3      | 250                  | 22    | 4.16          | 0.10        | 680           |
| CS0402-9N1□-S | 9.1             | 10 / 5 / 3      | 250                  | 22    | 4.16          | 0.10        | 680           |
| CS0402-9N5□-S | 9.5             | 10 / 5 / 3      | 250                  | 18    | 4.00          | 0.20        | 480           |
| CS0402-10N□-S | 10              | 10 / 5 / 3 / 2  | 250                  | 21    | 3.90          | 0.20        | 480           |
| CS0402-11N□-S | 11              | 10 / 5 / 3 / 2  | 250                  | 24    | 3.68          | 0.12        | 640           |
| CS0402-12N□-S | 12              | 10 / 5 / 3 / 2  | 250                  | 24    | 3.60          | 0.12        | 640           |
| CS0402-13N□-S | 13              | 10 / 5 / 3 / 2  | 250                  | 24    | 3.45          | 0.21        | 440           |
| CS0402-15N□-S | 15              | 10 / 5 / 3 / 2  | 250                  | 24    | 3.28          | 0.17        | 560           |
| CS0402-16N□-S | 16              | 10 / 5 / 3 / 2  | 250                  | 24    | 3.10          | 0.22        | 560           |
| CS0402-18N□-S | 18              | 10 / 5 / 3 / 2  | 250                  | 25    | 3.10          | 0.23        | 420           |
| CS0402-19N□-S | 19              | 10 / 5 / 3 / 2  | 250                  | 24    | 3.04          | 0.20        | 480           |
| CS0402-20N□-S | 20              | 10 / 5 / 3 / 2  | 250                  | 25    | 3.00          | 0.25        | 420           |
| CS0402-22N□-S | 22              | 10 / 5 / 3 / 2  | 250                  | 25    | 2.80          | 0.30        | 400           |
| CS0402-23N□-S | 23              | 10 / 5 / 3 / 2  | 250                  | 22    | 2.72          | 0.30        | 400           |
| CS0402-24N□-S | 24              | 10 / 5 / 3 / 2  | 250                  | 25    | 2.70          | 0.30        | 400           |
| CS0402-27N□-S | 27              | 10 / 5 / 3 / 2  | 250                  | 24    | 2.48          | 0.30        | 400           |
| CS0402-30N□-S | 30              | 10 / 5 / 3 / 2  | 250                  | 25    | 2.35          | 0.35        | 400           |

**Note: When ordering, please specify tolerance code. Tolerance : B=±0.1nH , G=±2% , H=±3% , J=±5% , K=±10%**

- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- Irms for a 15°C temperature rise from 25°C ambient with current
- Measure Equipment :  
L & Q : Agilent E4991A+Agilent HP16197A  
SRF : Agilent HP8753D/Agilent HP8722ES  
RDC : HP4287A  
Irms : HP4284A+HP42841A/HP4285A+HP42841A

# SMD Wire Wound Ceramic Chip Inductors - CS Series

## Electrical Characteristics

| Part Number   | Inductance (nH) | Tolerance (±%) | Test Frequency (MHz) | Q Min | SRF (GHz) Min | RDC (Ω) Max | Irms (mA) Max |
|---------------|-----------------|----------------|----------------------|-------|---------------|-------------|---------------|
| CS0402-33N□-S | 33              | 10 / 5 / 3 / 2 | 250                  | 24    | 2.35          | 0.40        | 400           |
| CS0402-36N□-S | 36              | 10 / 5 / 3 / 2 | 250                  | 24    | 2.32          | 0.44        | 320           |
| CS0402-39N□-S | 39              | 10 / 5 / 3 / 2 | 250                  | 25    | 2.10          | 0.55        | 200           |
| CS0402-40N□-S | 40              | 10 / 5 / 3 / 2 | 250                  | 24    | 2.24          | 0.65        | 320           |
| CS0402-43N□-S | 43              | 10 / 5 / 3 / 2 | 250                  | 25    | 2.03          | 0.81        | 100           |
| CS0402-47N□-S | 47              | 10 / 5 / 3 / 2 | 250                  | 20    | 2.10          | 0.83        | 150           |
| CS0402-51N□-S | 51              | 10 / 5 / 3 / 2 | 250                  | 25    | 1.75          | 0.82        | 100           |
| CS0402-56N□-S | 56              | 10 / 5 / 3 / 2 | 250                  | 22    | 1.76          | 0.97        | 100           |
| CS0402-68N□-S | 68              | 10 / 5 / 3 / 2 | 250                  | 22    | 1.62          | 1.12        | 100           |
| CS0402-82N□-S | 82              | 10 / 5 / 3 / 2 | 250                  | 20    | 1.26          | 1.55        | 50            |
| CS0402-R10□-S | 100             | 10 / 5 / 3 / 2 | 250                  | 20    | 1.16          | 2.00        | 30            |
| CS0402-R18□-S | 180             | 10 / 5 / 3 / 2 | 100                  | 8     | 0.70          | 2.70        | 50            |
| CS0402-R22□-S | 220             | 10 / 5 / 3 / 2 | 100                  | 8     | 0.70          | 4.00        | 50            |

**Note:** When ordering, please specify tolerance code. Tolerance : B=±0.1nH , G=±2% , H=±3% , J=±5% , K=±10%

- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- I<sub>rms</sub> for a 15°C temperature rise from 25°C ambient with current
- Measure Equipment :  
 L & Q : Agilent E4991A+Agilent HP16197A  
 SRF : Agilent HP8753D/Agilent HP8722ES  
 RDC : HP4287A  
 I<sub>rms</sub> : HP4284A+HP42841A/HP4285A+HP42841A

Typical L vs. Frequency



Typical Q vs. Frequency



# SMD Wire Wound Ceramic Chip Inductors – CS Series

## Electrical Characteristics

| Part Number   | Inductance (nH) | Tolerance (±%)  | Test Frequency (MHz) | Q Min | SRF (MHz) Min | RDC (Ω) Max | Irms (mA) Max | Color  |
|---------------|-----------------|-----------------|----------------------|-------|---------------|-------------|---------------|--------|
| CS0603-1N6□-S | 1.6             | 10 / 5 / ±0.1nH | 250                  | 24    | 12500         | 0.030       | 700           | Red    |
| CS0603-1N8□-S | 1.8             | 10 / 5 / ±0.1nH | 250                  | 16    | 12500         | 0.045       | 700           | Black  |
| CS0603-2N2□-S | 2.2             | 10 / 5 / ±0.1nH | 250                  | 13    | 12500         | 0.250       | 700           | Yellow |
| CS0603-3N3□-S | 3.3             | 10 / 5 / 3      | 250                  | 35    | 5900          | 0.045       | 700           | Blue   |
| CS0603-3N6□-S | 3.6             | 10 / 5 / 3 / 2  | 250                  | 22    | 5900          | 0.063       | 700           | Red    |
| CS0603-3N9□-S | 3.9             | 10 / 5 / 3 / 2  | 250                  | 22    | 6900          | 0.080       | 700           | Brown  |
| CS0603-4N3□-S | 4.3             | 10 / 5 / 3 / 2  | 250                  | 22    | 5900          | 0.063       | 700           | Orange |
| CS0603-4N7□-S | 4.7             | 10 / 5 / 3 / 2  | 250                  | 20    | 5800          | 0.116       | 700           | Violet |
| CS0603-5N1□-S | 5.1             | 10 / 5 / 3 / 2  | 250                  | 20    | 5700          | 0.140       | 700           | Green  |
| CS0603-5N6□-S | 5.6             | 10 / 5 / 3 / 2  | 250                  | 20    | 5800          | 0.170       | 700           | Yellow |
| CS0603-6N3□-S | 6.3             | 10 / 5 / 3 / 2  | 250                  | 20    | 5700          | 0.140       | 700           | White  |
| CS0603-6N8□-S | 6.8             | 10 / 5 / 3 / 2  | 250                  | 27    | 5800          | 0.110       | 700           | Red    |
| CS0603-7N5□-S | 7.5             | 10 / 5 / 3 / 2  | 250                  | 28    | 4800          | 0.106       | 700           | Brown  |
| CS0603-8N2□-S | 8.2             | 10 / 5 / 3 / 2  | 250                  | 28    | 4700          | 0.109       | 700           | White  |
| CS0603-8N7□-S | 8.7             | 10 / 5 / 3 / 2  | 250                  | 28    | 4600          | 0.109       | 700           | Yellow |
| CS0603-9N1□-S | 9.1             | 10 / 5 / 3 / 2  | 250                  | 28    | 4800          | 0.120       | 700           | Violet |
| CS0603-9N5□-S | 9.5             | 10 / 5 / 3 / 2  | 250                  | 28    | 5400          | 0.135       | 700           | Blue   |
| CS0603-10N□-S | 10              | 10 / 5 / 3 / 2  | 250                  | 31    | 4800          | 0.130       | 700           | Orange |
| CS0603-11N□-S | 11              | 10 / 5 / 3 / 2  | 250                  | 33    | 4000          | 0.086       | 700           | Gray   |
| CS0603-12N□-S | 12              | 10 / 5 / 3 / 2  | 250                  | 35    | 4000          | 0.130       | 700           | Yellow |
| CS0603-13N□-S | 13              | 10 / 5 / 3 / 2  | 250                  | 30    | 4000          | 0.160       | 700           | Black  |
| CS0603-15N□-S | 15              | 10 / 5 / 3 / 2  | 250                  | 35    | 4000          | 0.170       | 700           | Green  |
| CS0603-16N□-S | 16              | 10 / 5 / 3 / 2  | 250                  | 34    | 3300          | 0.104       | 700           | White  |
| CS0603-18N□-S | 18              | 10 / 5 / 3 / 2  | 250                  | 35    | 3100          | 0.170       | 700           | Blue   |
| CS0603-20N□-S | 20              | 10 / 5 / 3 / 2  | 250                  | 38    | 3000          | 0.190       | 700           | Red    |
| CS0603-22N□-S | 22              | 10 / 5 / 3 / 2  | 250                  | 38    | 3000          | 0.190       | 700           | Violet |
| CS0603-23N□-S | 23              | 10 / 5 / 3 / 2  | 250                  | 38    | 2850          | 0.190       | 700           | Orange |
| CS0603-24N□-S | 24              | 10 / 5 / 3 / 2  | 250                  | 37    | 2650          | 0.135       | 700           | Black  |
| CS0603-27N□-S | 27              | 10 / 5 / 3 / 2  | 250                  | 40    | 2800          | 0.220       | 600           | Gray   |
| CS0603-30N□-S | 30              | 10 / 5 / 3 / 2  | 250                  | 37    | 2250          | 0.144       | 600           | Brown  |
| CS0603-33N□-S | 33              | 10 / 5 / 3 / 2  | 250                  | 40    | 2300          | 0.220       | 600           | White  |
| CS0603-36N□-S | 36              | 10 / 5 / 3 / 2  | 250                  | 38    | 2080          | 0.250       | 600           | Red    |
| CS0603-39N□-S | 39              | 10 / 5 / 3 / 2  | 250                  | 40    | 2200          | 0.250       | 600           | Black  |
| CS0603-43N□-S | 43              | 10 / 5 / 3 / 2  | 250                  | 39    | 2000          | 0.280       | 600           | Orange |
| CS0603-47N□-S | 47              | 10 / 5 / 3 / 2  | 200                  | 38    | 2000          | 0.280       | 600           | Brown  |
| CS0603-51N□-S | 51              | 10 / 5 / 3 / 2  | 200                  | 38    | 1900          | 0.310       | 600           | Brown  |
| CS0603-56N□-S | 56              | 10 / 5 / 3 / 2  | 200                  | 38    | 1900          | 0.310       | 600           | Red    |
| CS0603-68N□-S | 68              | 10 / 5 / 3 / 2  | 200                  | 37    | 1700          | 0.340       | 600           | Orange |
| CS0603-72N□-S | 72              | 10 / 5 / 3 / 2  | 150                  | 34    | 1700          | 0.490       | 400           | Yellow |
| CS0603-82N□-S | 82              | 10 / 5 / 3 / 2  | 150                  | 34    | 1700          | 0.540       | 400           | Green  |
| CS0603-91N□-S | 91              | 10 / 5 / 3 / 2  | 150                  | 34    | 1400          | 0.580       | 400           | Black  |

**Note: When ordering, please specify tolerance code. Tolerance : B=±0.1nH , G=±2% , H=±3% , J=±5% , K=±10%**

- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- Irms for a 15°C temperature rise from 25°C ambient with current
- Measure Equipment :

L & Q : Agilent E4991A+Agilent HP16197A

SRF : Agilent HP8753D/Agilent E4991A

RDC : Chroma 16502

Irms : HP4284A+HP42841A/HP4285A+HP42841A

Please be sure to request approval specifications that provide further details of the products. Kindly note that the content of these specifications are subject to change or may be discontinued without prior notice. This product may not be designed/used in medical or high risk applications without Chilisin approval. Please contact our sales department before ordering.



**CHILISIN ELECTRONICS CORP.**



# SMD Wire Wound Ceramic Chip Inductors – CS Series

## Electrical Characteristics

| Part Number   | Inductance (nH) | Tolerance (±%) | Test Frequency (MHz) | Q Min | SRF (MHz) Min | RDC (Ω) Max | Irms (mA) Max | Color  |
|---------------|-----------------|----------------|----------------------|-------|---------------|-------------|---------------|--------|
| CS0603-R10□-S | 100             | 10 / 5 / 3 / 2 | 150                  | 34    | 1400          | 0.580       | 400           | Blue   |
| CS0603-R11□-S | 110             | 10 / 5 / 3 / 2 | 150                  | 32    | 1350          | 0.610       | 300           | Violet |
| CS0603-R12□-S | 120             | 10 / 5 / 3 / 2 | 150                  | 32    | 1300          | 0.750       | 300           | Gray   |
| CS0603-R15□-S | 150             | 10 / 5 / 3 / 2 | 150                  | 28    | 990           | 0.920       | 280           | White  |
| CS0603-R16□-S | 160             | 10 / 5 / 3 / 2 | 100                  | 25    | 990           | 1.250       | 240           | Yellow |
| CS0603-R18□-S | 180             | 10 / 5 / 3 / 2 | 100                  | 25    | 990           | 1.250       | 240           | Black  |
| CS0603-R20□-S | 200             | 10 / 5 / 3 / 2 | 100                  | 25    | 900           | 2.100       | 200           | Red    |
| CS0603-R21□-S | 210             | 10 / 5 / 3 / 2 | 100                  | 27    | 895           | 2.060       | 200           | Gray   |
| CS0603-R22□-S | 220             | 10 / 5 / 3 / 2 | 100                  | 25    | 900           | 2.100       | 200           | Brown  |
| CS0603-R24□-S | 240             | 10 / 5 / 3 / 2 | 100                  | 25    | 900           | 2.200       | 200           | Green  |
| CS0603-R25□-S | 250             | 10 / 5 / 3 / 2 | 100                  | 25    | 822           | 3.550       | 120           | Violet |
| CS0603-R27□-S | 270             | 10 / 5 / 3 / 2 | 100                  | 24    | 900           | 2.800       | 170           | Red    |
| CS0603-R33□-S | 330             | 10 / 5 / 3 / 2 | 100                  | 25    | 900           | 3.890       | 100           | Orange |
| CS0603-R39□-S | 390             | 10 / 5 / 3 / 2 | 100                  | 25    | 900           | 4.350       | 100           | Yellow |
| CS0603-R47□-S | 470             | 10 / 5 / 3 / 2 | 100                  | 25    | 500           | 4.500       | 100           | Brown  |
| CS0603-R56□-S | 560             | 10 / 5 / 3 / 2 | 100                  | 23    | 460           | 4.700       | 90            | Blue   |

**Note:** When ordering, please specify tolerance code. Tolerance : B=±0.1nH , G=±2% , H=±3% , J=±5% , K=±10%

- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- Irms for a 15°C temperature rise from 25°C ambient with current
- Measure Equipment :

L & Q : Agilent E4991A+Agilent HP16197A

SRF : Agilent HP8753D/Agilent E4991A

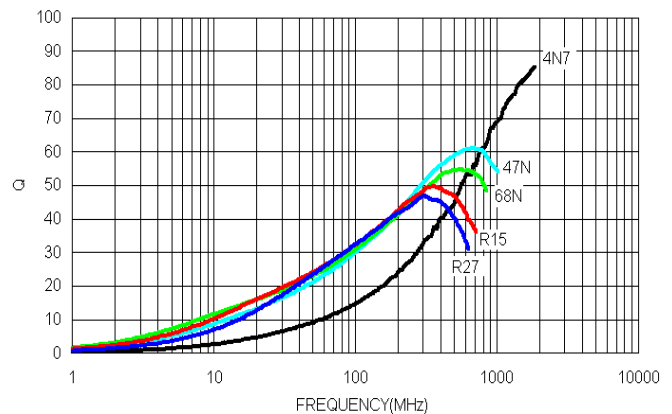
RDC : Chroma 16502

Irms : HP4284A+HP42841A/HP4285A+HP42841A

Typical L vs. Frequency



Typical Q vs. Frequency



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CHILISIN ELECTRONICS CORP.

## SMD Wire Wound Ceramic Chip Inductors – CS Series

### Electrical Characteristics

| Part Number   | Inductance<br>(nH) | Tolerance<br>(±%) | Test<br>Frequency<br>(MHz) | Q<br>Min | Test<br>Frequency<br>(MHz) | SRF<br>(MHz) Min | RDC<br>(Ω) Max | I <sub>rms</sub><br>(mA) Max | Color  |
|---------------|--------------------|-------------------|----------------------------|----------|----------------------------|------------------|----------------|------------------------------|--------|
| CS0805-2N7□-S | 2.7                | 10 / 5 / 2        | 250                        | 50       | 1500                       | 7900             | 0.06           | 800                          | Yellow |
| CS0805-2N8□-S | 2.8                | 10 / 5 / 2        | 250                        | 80       | 1500                       | 7900             | 0.06           | 800                          | Gray   |
| CS0805-3N0□-S | 3.0                | 10 / 5 / 2        | 250                        | 65       | 1500                       | 7900             | 0.06           | 800                          | White  |
| CS0805-3N3□-S | 3.3                | 10 / 5 / 2        | 250                        | 50       | 1500                       | 7900             | 0.08           | 600                          | Black  |
| CS0805-5N6□-S | 5.6                | 10 / 5 / 2        | 250                        | 65       | 1000                       | 5500             | 0.08           | 600                          | Orange |
| CS0805-6N8□-S | 6.8                | 10 / 5 / 2        | 250                        | 50       | 1000                       | 5500             | 0.11           | 600                          | Brown  |
| CS0805-7N5□-S | 7.5                | 10 / 5 / 2        | 250                        | 50       | 1000                       | 4500             | 0.14           | 600                          | Green  |
| CS0805-8N2□-S | 8.2                | 10 / 5 / 2        | 250                        | 50       | 1000                       | 4700             | 0.12           | 600                          | Red    |
| CS0805-10N□-S | 10                 | 10 / 5 / 2        | 250                        | 60       | 500                        | 4200             | 0.10           | 600                          | Blue   |
| 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-R30□-S | 300                | 10 / 5 / 2        | 100                        | 25       | 250                        | 450              | 1.40           | 310                          | Orange |
| 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                        | 450              | 1.76           | 250                          | Violet |
| CS0805-R51□-S | 510                | 10 / 5 / 2        | 25                         | 23       | 50                         | 340              | 1.90           | 230                          | Gray   |
| 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                          | Yellow |
| CS0805-R68□-S | 680                | 10 / 5 / 2        | 25                         | 23       | 50                         | 188              | 2.20           | 190                          | Green  |

**Note: When ordering, please specify tolerance code. Tolerance : G=±2% , J=±5% , K=±10%**

- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- I<sub>rms</sub> for a 15°C temperature rise from 25°C ambient with current
- Measure Equipment :

L & Q : Agilent E4991A+Agilent HP16197A

SRF : Agilent HP8753D/Agilent E4991A

RDC : Chroma 16502

I<sub>rms</sub> : HP4284A+HP42841A/HP4285A+HP42841A

Please be sure to request approval specifications that provide further details of the products. Kindly note that the content of these specifications are subject to change or may be discontinued without prior notice. This product may not be designed/used in medical or high risk applications without Chilisin approval. Please contact our sales department before ordering.



**CHILISIN ELECTRONICS CORP.**

# SMD Wire Wound Ceramic Chip Inductors – CS Series

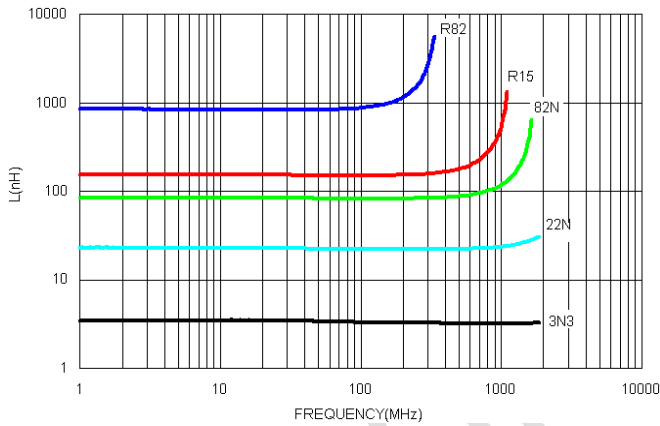
## Electrical Characteristics

| Part Number   | Inductance (nH) | Tolerance (±%) | Test Frequency (MHz) | Q Min | Test Frequency (MHz) | SRF (MHz) Min | RDC (Ω) Max | I <sub>rms</sub> (mA) Max | Color  |
|---------------|-----------------|----------------|----------------------|-------|----------------------|---------------|-------------|---------------------------|--------|
| CS0805-R82□-S | 820             | 10 / 5 / 2     | 25                   | 23    | 50                   | 215           | 2.35        | 180                       | Blue   |
| CS0805-1R0□-S | 1000            | 10 / 5 / 2     | 25                   | 20    | 50                   | 100           | 2.50        | 170                       | Gray   |
| CS0805-1R2□-S | 1200            | 10 / 5         | 7.9                  | 18    | 25                   | 100           | 2.50        | 170                       | White  |
| CS0805-1R8□-S | 1800            | 10 / 5 / 2     | 7.9                  | 16    | 7.9                  | 80            | 2.50        | 170                       | Orange |
| CS0805-3R3□-S | 3300            | 10 / 5 / 2     | 7.9                  | 15    | 7.9                  | 40            | 4.40        | 90                        | Red    |
| CS0805-4R7□-S | 4700            | 10 / 5 / 2     | 7.9                  | 15    | 7.9                  | 40            | 6.40        | 90                        | Yellow |

**Note:** When ordering, please specify tolerance code. Tolerance : G=±2% , J=±5% , K=±10%

- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- I<sub>rms</sub> for a 15°C temperature rise from 25°C ambient with current
- Measure Equipment :  
 L & Q : Agilent E4991A+Agilent HP16197A  
 SRF : Agilent HP8753D/Agilent E4991A  
 RDC : Chroma 16502  
 I<sub>rms</sub> : HP4284A+HP42841A/HP4285A+HP42841A

Typical L vs. Frequency



Typical Q vs. Frequency



# SMD Wire Wound Ceramic Chip Inductors – CS Series

## Electrical Characteristics

| Part Number   | Inductance (nH) | Tolerance (±%) | Test Frequency (MHz) | Q Min | Test Frequency (MHz) | SRF (MHz) Min | RDC (Ω) Max | I <sub>rms</sub> (mA) Max | Color Coding    |                 |                 |
|---------------|-----------------|----------------|----------------------|-------|----------------------|---------------|-------------|---------------------------|-----------------|-----------------|-----------------|
|               |                 |                |                      |       |                      |               |             |                           | 1 <sup>ST</sup> | 2 <sup>ND</sup> | 3 <sup>RD</sup> |
| CS1008-10N□-S | 10              | 10 / 5 / 2     | 50                   | 50    | 500                  | 4100          | 0.08        | 1000                      | Brown           | Black           | Black           |
| CS1008-12N□-S | 12              | 10 / 5 / 2     | 50                   | 50    | 500                  | 3300          | 0.09        | 1000                      | Brown           | Red             | Black           |
| CS1008-15N□-S | 15              | 10 / 5 / 2     | 50                   | 50    | 500                  | 2500          | 0.10        | 1000                      | Brown           | Green           | Black           |
| CS1008-18N□-S | 18              | 10 / 5 / 2     | 50                   | 50    | 350                  | 2500          | 0.11        | 1000                      | Brown           | Gray            | Black           |
| CS1008-22N□-S | 22              | 10 / 5 / 2     | 50                   | 55    | 350                  | 2400          | 0.12        | 1000                      | Red             | Red             | Black           |
| CS1008-27N□-S | 27              | 10 / 5 / 2     | 50                   | 55    | 350                  | 1600          | 0.13        | 1000                      | Red             | Violet          | Black           |
| CS1008-33N□-S | 33              | 10 / 5 / 2     | 50                   | 60    | 350                  | 1600          | 0.14        | 1000                      | Orange          | Orange          | Black           |
| CS1008-39N□-S | 39              | 10 / 5 / 2     | 50                   | 60    | 350                  | 1500          | 0.15        | 1000                      | Orange          | White           | Black           |
| CS1008-47N□-S | 47              | 10 / 5 / 2     | 50                   | 65    | 350                  | 1500          | 0.16        | 1000                      | Yellow          | Violet          | Black           |
| CS1008-56N□-S | 56              | 10 / 5 / 2     | 50                   | 65    | 350                  | 1300          | 0.18        | 1000                      | Green           | Blue            | Black           |
| CS1008-68N□-S | 68              | 10 / 5 / 2     | 50                   | 65    | 350                  | 1300          | 0.20        | 1000                      | Blue            | Gray            | Black           |
| CS1008-82N□-S | 82              | 10 / 5 / 2     | 50                   | 60    | 350                  | 1000          | 0.22        | 1000                      | Gray            | Red             | Black           |
| CS1008-R10□-S | 100             | 10 / 5 / 2     | 25                   | 60    | 350                  | 1000          | 0.56        | 650                       | Brown           | Black           | Brown           |
| CS1008-R12□-S | 120             | 10 / 5 / 2     | 25                   | 60    | 350                  | 950           | 0.63        | 650                       | Brown           | Red             | Brown           |
| CS1008-R15□-S | 150             | 10 / 5 / 2     | 25                   | 45    | 100                  | 850           | 0.70        | 580                       | Brown           | Green           | Brown           |
| CS1008-R18□-S | 180             | 10 / 5 / 2     | 25                   | 45    | 100                  | 750           | 0.77        | 620                       | Brown           | Gray            | Brown           |
| CS1008-R20□-S | 200             | 10 / 5 / 2     | 25                   | 45    | 100                  | 700           | 0.84        | 500                       | Red             | Black           | Brown           |
| CS1008-R22□-S | 220             | 10 / 5 / 2     | 25                   | 45    | 100                  | 700           | 0.84        | 500                       | Red             | Red             | Brown           |
| CS1008-R27□-S | 270             | 10 / 5 / 2     | 25                   | 45    | 100                  | 600           | 0.91        | 500                       | Red             | Violet          | Brown           |
| CS1008-R33□-S | 330             | 10 / 5 / 2     | 25                   | 45    | 100                  | 570           | 1.05        | 450                       | Orange          | Orange          | Brown           |
| CS1008-R39□-S | 390             | 10 / 5 / 2     | 25                   | 45    | 100                  | 500           | 1.12        | 470                       | Orange          | White           | Brown           |
| CS1008-R47□-S | 470             | 10 / 5 / 2     | 25                   | 45    | 100                  | 450           | 1.19        | 470                       | Yellow          | Violet          | Brown           |
| CS1008-R56□-S | 560             | 10 / 5 / 2     | 25                   | 45    | 100                  | 415           | 1.33        | 400                       | Green           | Blue            | Brown           |
| CS1008-R62□-S | 620             | 10 / 5 / 2     | 25                   | 45    | 100                  | 375           | 1.40        | 300                       | Blue            | Red             | Brown           |
| CS1008-R68□-S | 680             | 10 / 5 / 2     | 25                   | 45    | 100                  | 375           | 1.47        | 400                       | Blue            | Gray            | Brown           |
| CS1008-R75□-S | 750             | 10 / 5 / 2     | 25                   | 45    | 100                  | 360           | 1.54        | 360                       | Violet          | Green           | Brown           |
| CS1008-R82□-S | 820             | 10 / 5 / 2     | 25                   | 45    | 100                  | 350           | 1.61        | 400                       | Gray            | Red             | Brown           |
| CS1008-R91□-S | 910             | 10 / 5 / 2     | 25                   | 35    | 50                   | 320           | 1.68        | 380                       | White           | Brown           | Brown           |
| CS1008-1R0□-S | 1000            | 10 / 5 / 2     | 25                   | 35    | 50                   | 290           | 1.75        | 370                       | Brown           | Black           | Red             |
| CS1008-1R2□-S | 1200            | 10 / 5 / 2     | 7.9                  | 35    | 50                   | 250           | 2.0         | 310                       | Brown           | Red             | Red             |
| CS1008-1R5□-S | 1500            | 10 / 5 / 2     | 7.9                  | 28    | 50                   | 200           | 2.3         | 330                       | Brown           | Green           | Red             |
| CS1008-1R8□-S | 1800            | 10 / 5 / 2     | 7.9                  | 28    | 50                   | 160           | 2.6         | 300                       | Brown           | Gray            | Red             |
| CS1008-2R2□-S | 2200            | 10 / 5 / 2     | 7.9                  | 28    | 50                   | 160           | 2.8         | 280                       | Red             | Red             | Red             |
| CS1008-2R7□-S | 2700            | 10 / 5 / 2     | 7.9                  | 22    | 25                   | 140           | 3.2         | 290                       | Red             | Violet          | Red             |
| CS1008-3R3□-S | 3300            | 10 / 5 / 2     | 7.9                  | 22    | 25                   | 110           | 3.4         | 290                       | Orange          | Orange          | Red             |
| CS1008-3R9□-S | 3900            | 10 / 5 / 2     | 7.9                  | 20    | 25                   | 100           | 3.6         | 260                       | Orange          | White           | Red             |
| CS1008-4R7□-S | 4700            | 10 / 5 / 2     | 7.9                  | 20    | 25                   | 90            | 4.0         | 260                       | Yellow          | Violet          | Red             |
| CS1008-5R6□-S | 5600            | 10 / 5 / 2     | 7.9                  | 18    | 7.9                  | 45            | 4.0         | 240                       | Green           | Blue            | Red             |
| CS1008-6R8□-S | 6800            | 10 / 5 / 2     | 7.9                  | 18    | 7.9                  | 40            | 4.9         | 200                       | Blue            | Gray            | Red             |
| CS1008-8R2□-S | 8200            | 10 / 5 / 2     | 7.9                  | 18    | 7.9                  | 25            | 6.0         | 170                       | Gray            | Red             | Red             |
| CS1008-100□-S | 10000           | 10 / 5 / 2     | 2.52                 | 18    | 7.9                  | 25            | 8.0         | 150                       | Brown           | Black           | Orange          |
| CS1008-150□-S | 15000           | 10 / 5 / 2     | 2.52                 | 15    | 7.9                  | 20            | 11          | 100                       | Brown           | Green           | Orange          |

**Note: When ordering, please specify tolerance code. Tolerance : G=±2% , J=±5% , K=±10%**

- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- I<sub>rms</sub> for a 15°C temperature rise from 25°C ambient with current
- Measure Equipment :

L & Q : Agilent E4991A+Agilent HP16197A

SRF : Agilent HP8753D/Agilent E4991A

RDC : Chroma 16502

I<sub>rms</sub> : HP4284A+HP42841A/HP4285A+HP42841A



**COLOR CODING**

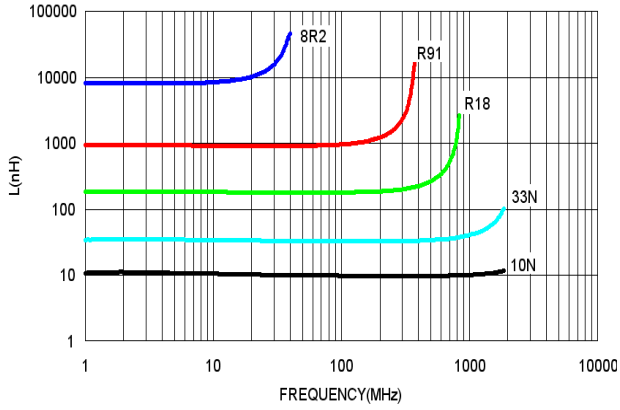
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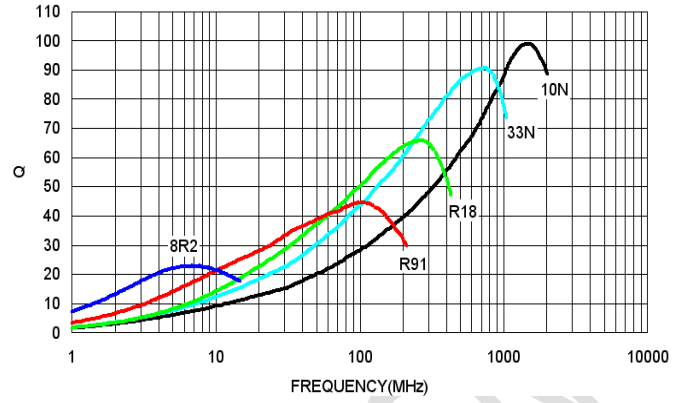
**CHILISIN ELECTRONICS CORP.**

# SMD Wire Wound Ceramic Chip Inductors – CS Series

Typical **L** vs. **F** Frequency



Typical **Q** vs. **F** Frequency



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# SMD Wire Wound Ceramic Chip Inductors – CS Series

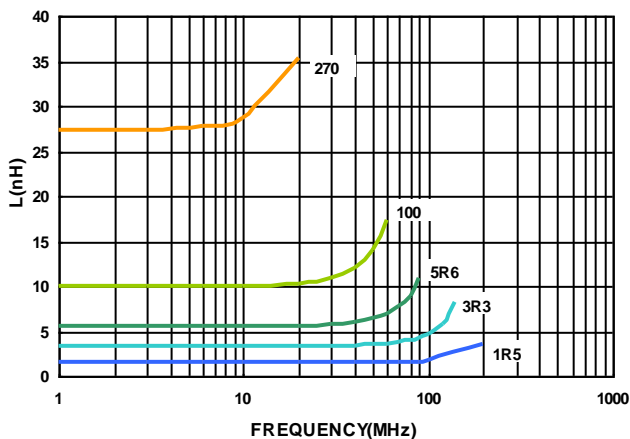
## Electrical Characteristics

| Part Number   | Inductance (uH) | Tolerance (±%) | Test Frequency (MHz) | Q Min | Test Frequency (MHz) | SRF (MHz) Min | RDC (Ω) Max | Irms (mA) Typ |
|---------------|-----------------|----------------|----------------------|-------|----------------------|---------------|-------------|---------------|
| CS1812-1R0□-N | 1.0             | J              | 7.9                  | 60    | 50                   | 310           | 1.2         | 480           |
| CS1812-1R2□-N | 1.2             | J              | 7.9                  | 62    | 50                   | 230           | 1.2         | 480           |
| CS1812-1R5□-N | 1.5             | J              | 7.9                  | 65    | 50                   | 210           | 1.6         | 430           |
| CS1812-1R8□-N | 1.8             | J              | 7.9                  | 68    | 50                   | 190           | 2.0         | 380           |
| CS1812-2R2□-N | 2.2             | J              | 7.9                  | 63    | 50                   | 170           | 2.2         | 340           |
| CS1812-2R7□-N | 2.7             | J              | 7.9                  | 60    | 50                   | 160           | 3.2         | 300           |
| CS1812-3R3□-N | 3.3             | J              | 7.9                  | 60    | 50                   | 145           | 3.8         | 270           |
| CS1812-3R9□-N | 3.9             | J              | 7.9                  | 61    | 50                   | 130           | 5.0         | 240           |
| CS1812-4R7□-N | 4.7             | J              | 7.9                  | 60    | 50                   | 115           | 5.4         | 230           |
| CS1812-5R6□-N | 5.6             | J              | 7.9                  | 42    | 50                   | 100           | 5.7         | 220           |
| CS1812-6R8□-N | 6.8             | J              | 7.9                  | 32    | 50                   | 90            | 6.6         | 210           |
| CS1812-8R2□-N | 8.2             | J              | 7.9                  | 35    | 50                   | 80            | 7.0         | 200           |
| CS1812-100□-N | 10              | J              | 7.9                  | 27    | 50                   | 70            | 7.7         | 190           |
| CS1812-120□-N | 12              | J              | 2.5                  | 34    | 10                   | 58            | 8.7         | 180           |
| CS1812-150□-N | 15              | J              | 2.5                  | 32    | 10                   | 48            | 9.6         | 170           |
| CS1812-180□-N | 18              | J              | 2.5                  | 28    | 10                   | 36            | 10.5        | 160           |
| CS1812-220□-N | 22              | J              | 2.5                  | 28    | 10                   | 34            | 11.5        | 155           |
| CS1812-270□-N | 27              | J              | 2.5                  | 28    | 10                   | 30            | 12.5        | 150           |
| CS1812-330□-N | 33              | J              | 2.5                  | 20    | 10                   | 20            | 13.5        | 145           |

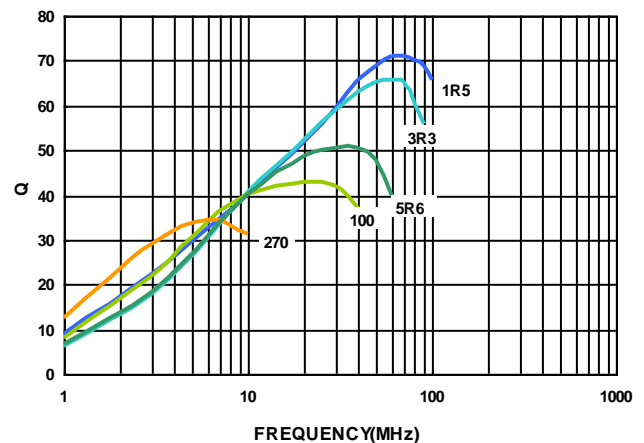
**Note: When ordering, please specify tolerance code. Tolerance : J=±5%**

- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- Irms for a 15°C temperature rise from 25°C ambient with current
- Measure Equipment :  
 L & Q : HP4286A/HP4287A/AgilentE4991/Keysight E4982A  
 SRF : Agilent HP8753D/Agilent E4991A  
 RDC : Chroma 16502  
 Irms : HP4284A+HP42841A/HP4285A+HP42841A

Typical **L** vs. **F** Frequency



Typical **Q** vs. **F** Frequency



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## Packaging Specifications

### Tape Dimensions

Figure 1

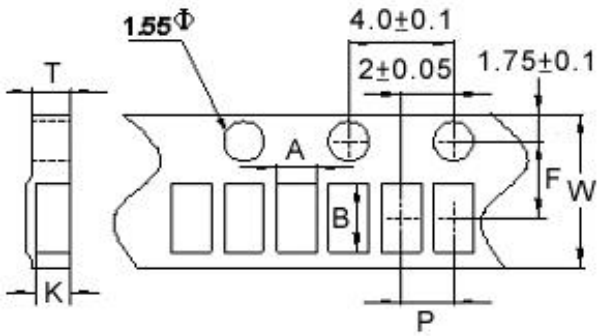


Figure 2

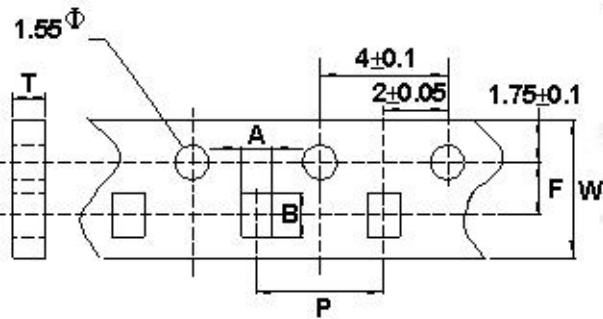
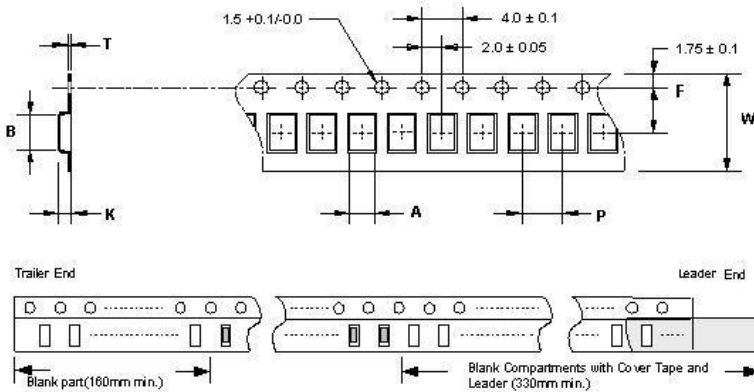


Figure 3



### Tape Material

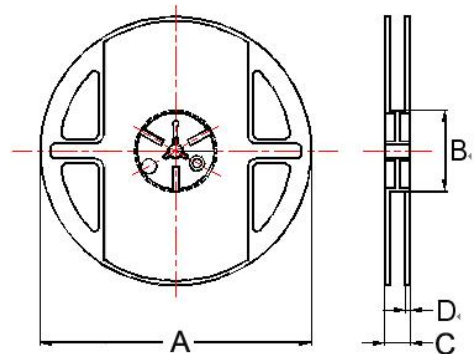
Carrier Tape: Paper  
Cover Tape: Polystyrene



Carrier Tape: Paper  
Cover Tape: Polystyrene



### Reel Dimensions



### Dimensions in mm

| TYPE   | Fig. | Tape Dimensions |      |      |    |   |     |      | Reel Dimensions |    |    |     | Quantity<br>PCS / Reel |
|--------|------|-----------------|------|------|----|---|-----|------|-----------------|----|----|-----|------------------------|
|        |      | A               | B    | T    | W  | P | F   | K    | A               | B  | C  | D   |                        |
| CS0201 | 1    | 0.47            | 0.57 | 0.65 | 8  | 2 | 3.5 | 0.45 | 178             | 60 | 12 | 1.5 | 4000                   |
| CS0402 | 1    | 0.67            | 1.20 | 0.75 | 8  | 2 | 3.5 | 0.59 | 178             | 60 | 12 | 1.5 | 4000                   |
| CS0603 | 2    | 1.20            | 1.80 | 1.05 | 8  | 4 | 3.5 | -    | 178             | 60 | 12 | 1.5 | 4000                   |
| CS0805 | 3    | 1.85            | 2.45 | 0.23 | 8  | 4 | 3.5 | 1.50 | 178             | 60 | 12 | 1.5 | 2000                   |
| CS1008 | 3    | 2.80            | 2.95 | 0.23 | 8  | 4 | 3.5 | 2.20 | 178             | 60 | 12 | 1.5 | 2000                   |
| CS1812 | 3    | 3.90            | 4.90 | 0.30 | 12 | 8 | 5.5 | 3.20 | 178             | 60 | 16 | 1.4 | 600                    |

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