

# SPECIFICATION OF HLC SERIES

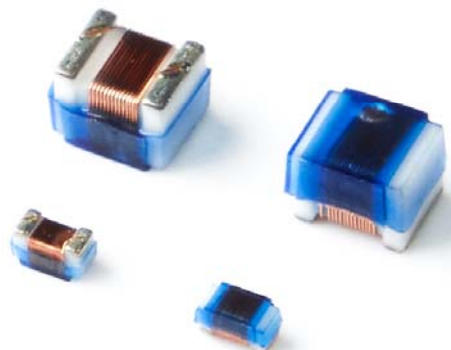
## HLC0402/0603/0805CSCC SERIES

1. Ceramic body and Wire wound construction provide highest SRFs available in 0402/0603/0805 size.
2. These ultra compact inductors provided exceptional Q values , even at high frequencies.



## HLC1008CSCC SERIES

1. THE "HLC" series chip inductors have been designed especially for the needs of today's high frequency designer.
2. Their ceramic construction delivers the highest possible SRFs as well as excellent Q values.
3. The non-magnetic coil form also assures the utmost in thermal stability , predictability and batch consistency.



## ORDERING CODE

**HLC1008CSCC 22N J T**  
(1) (2) (3)(4)

(1) PRODUCT TYPE CODE AND SIZE CODE

(2) INDUCTANCE

(3) INDUCTANCE TOLERANCE

( G :  $\pm 2\%$ , J :  $\pm 5\%$ , K :  $\pm 10\%$ )

(4) REEL TAPING

( G :  $\pm 2\%$ , J :  $\pm 5\%$ , K :  $\pm 10\%$ )

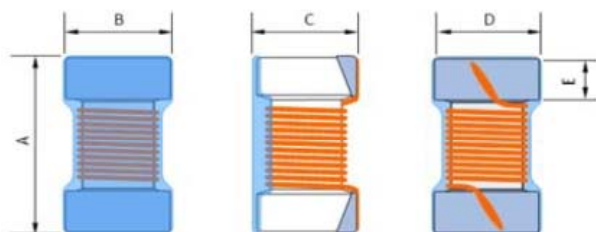
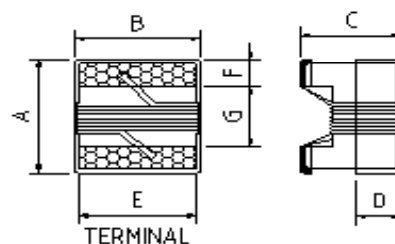


FIG 1

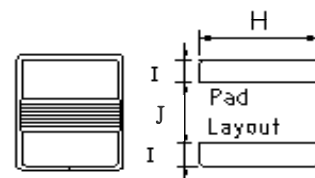


FIG 2

## SHAPE & DIMENSIONS

UNIT:mm (inch)

| SIZE CODE                    | A<br>Max.       | B<br>Max.       | C<br>Max.       | D<br>Ref.       | E<br>Ref.       | F<br>Ref.       | G<br>Ref.       | H               | I               | J               |   |
|------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|---|
| HLC0402CSCCxxxxT13<br>(0402) | 1.20<br>(0.047) | 0.70<br>(0.028) | 0.70<br>(0.028) | 0.50<br>(0.020) | 0.20<br>(0.020) | -               | -               | 0.65<br>(0.026) | 0.35<br>(0.014) | 0.50<br>(0.020) | 1 |
| HLC0603CSCC<br>(0603)        | 1.80<br>(0.071) | 1.12<br>(0.044) | 1.02<br>(0.040) | 0.38<br>(0.015) | 0.76<br>(0.030) | 0.33<br>(0.013) | 0.86<br>(0.034) | 1.02<br>(0.040) | 0.64<br>(0.025) | 0.64<br>(0.025) | 2 |
| HLC0805CSCC<br>(0805)        | 2.29<br>(0.090) | 1.73<br>(0.068) | 1.52<br>(0.060) | 0.51<br>(0.020) | 1.27<br>(0.050) | 0.51<br>(0.020) | 1.02<br>(0.040) | 1.78<br>(0.070) | 1.02<br>(0.040) | 0.76<br>(0.030) | 2 |
| HLC1008CSCC<br>(1008)        | 2.92<br>(0.115) | 2.79<br>(0.110) | 2.23<br>(0.088) | 0.51<br>(0.020) | 2.03<br>(0.080) | 0.51<br>(0.020) | 1.52<br>(0.060) | 2.54<br>(0.100) | 1.02<br>(0.040) | 1.27<br>(0.050) | 2 |

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# WOUND CHIP INDUCTORS → HLC1008CSCC SERIES

## ELECTRICAL CHARACTERISTICS

| ORDERING CODE    | L<br>(nH) | Tolerance<br>±% | Test<br>Frequency<br>(MHz) | Q<br>Min | Test<br>Frequency<br>(MHz) | Self Resonant<br>Frequency<br>(MHz)TYP | DC<br>Resistance<br>(Ω)max | IDC<br>(mA)max |
|------------------|-----------|-----------------|----------------------------|----------|----------------------------|----------------------------------------|----------------------------|----------------|
| HLC1008CSCC10N□T | 10        | 10/5/2          | 50                         | 50       | 500                        | 4100                                   | 0.08                       | 1000           |
| HLC1008CSCC12N□T | 12        | 10/5/2          | 50                         | 50       | 500                        | 3300                                   | 0.09                       | 1000           |
| HLC1008CSCC15N□T | 15        | 10/5/2          | 50                         | 50       | 500                        | 2500                                   | 0.10                       | 1000           |
| HLC1008CSCC18N□T | 18        | 10/5/2          | 50                         | 50       | 350                        | 2500                                   | 0.11                       | 1000           |
| HLC1008CSCC22N□T | 22        | 10/5/2          | 50                         | 55       | 350                        | 2400                                   | 0.12                       | 1000           |
| HLC1008CSCC27N□T | 27        | 10/5/2          | 50                         | 55       | 350                        | 1600                                   | 0.13                       | 1000           |
| HLC1008CSCC33N□T | 33        | 10/5/2          | 50                         | 60       | 350                        | 1600                                   | 0.14                       | 1000           |
| HLC1008CSCC39N□T | 39        | 10/5/2          | 50                         | 60       | 350                        | 1500                                   | 0.15                       | 1000           |
| HLC1008CSCC47N□T | 47        | 10/5/2          | 50                         | 65       | 350                        | 1500                                   | 0.16                       | 1000           |
| HLC1008CSCC56N□T | 56        | 10/5/2          | 50                         | 65       | 350                        | 1300                                   | 0.18                       | 1000           |
| HLC1008CSCC68N□T | 68        | 10/5/2          | 50                         | 65       | 350                        | 1300                                   | 0.20                       | 1000           |
| HLC1008CSCC82N□T | 82        | 10/5/2          | 50                         | 60       | 350                        | 1000                                   | 0.22                       | 1000           |
| HLC1008CSCCR10□T | 100       | 10/5/2          | 25                         | 60       | 350                        | 1000                                   | 0.56                       | 650            |
| HLC1008CSCCR12□T | 120       | 10/5/2          | 25                         | 60       | 350                        | 950                                    | 0.63                       | 650            |
| HLC1008CSCCR15□T | 150       | 10/5/2          | 25                         | 45       | 100                        | 850                                    | 0.70                       | 580            |
| HLC1008CSCCR18□T | 180       | 10/5/2          | 25                         | 45       | 100                        | 750                                    | 0.77                       | 620            |
| HLC1008CSCCR22□T | 220       | 10/5/2          | 25                         | 45       | 100                        | 700                                    | 0.84                       | 500            |
| HLC1008CSCCR27□T | 270       | 10/5/2          | 25                         | 45       | 100                        | 600                                    | 0.91                       | 500            |
| HLC1008CSCCR33□T | 330       | 10/5/2          | 25                         | 45       | 100                        | 570                                    | 1.05                       | 450            |
| HLC1008CSCCR39□T | 390       | 10/5/2          | 25                         | 45       | 100                        | 500                                    | 1.12                       | 470            |
| HLC1008CSCCR47□T | 470       | 10/5/2          | 25                         | 45       | 100                        | 450                                    | 1.19                       | 470            |
| HLC1008CSCCR56□T | 560       | 10/5/2          | 25                         | 45       | 100                        | 415                                    | 1.33                       | 400            |
| HLC1008CSCCR62□T | 620       | 10/5/2          | 25                         | 45       | 100                        | 375                                    | 1.40                       | 300            |
| HLC1008CSCCR68□T | 680       | 10/5/2          | 25                         | 45       | 100                        | 375                                    | 1.47                       | 400            |
| HLC1008CSCCR75□T | 750       | 10/5/2          | 25                         | 45       | 100                        | 360                                    | 1.54                       | 360            |
| HLC1008CSCCR82□T | 820       | 10/5/2          | 25                         | 45       | 100                        | 350                                    | 1.61                       | 400            |
| HLC1008CSCCR91□T | 910       | 10/5/2          | 25                         | 35       | 50                         | 320                                    | 1.68                       | 380            |
| HLC1008CSCC1R0□T | 1000      | 10/5/2          | 25                         | 35       | 50                         | 290                                    | 1.75                       | 370            |
| HLC1008CSCC1R2□T | 1200      | 10/5/2          | 7.9                        | 35       | 50                         | 250                                    | 2.00                       | 310            |
| HLC1008CSCC1R5□T | 1500      | 10/5/2          | 7.9                        | 28       | 50                         | 200                                    | 2.30                       | 330            |
| HLC1008CSCC1R8□T | 1800      | 10/5/2          | 7.9                        | 28       | 50                         | 160                                    | 2.60                       | 300            |
| HLC1008CSCC2R2□T | 2200      | 10/5/2          | 7.9                        | 28       | 50                         | 160                                    | 2.80                       | 280            |
| HLC1008CSCC2R7□T | 2700      | 10/5/2          | 7.9                        | 22       | 25                         | 140                                    | 3.20                       | 290            |
| HLC1008CSCC3R3□T | 3300      | 10/5/2          | 7.9                        | 22       | 25                         | 110                                    | 3.40                       | 290            |
| HLC1008CSCC3R9□T | 3900      | 10/5/2          | 7.9                        | 20       | 25                         | 100                                    | 3.60                       | 260            |
| HLC1008CSCC4R7□T | 4700      | 10/5/2          | 7.9                        | 20       | 25                         | 90                                     | 4.00                       | 260            |
| HLC1008CSCC5R6□T | 5600      | 10/5/2          | 7.9                        | 16       | 7.9                        | 20                                     | 4.00                       | 240            |
| HLC1008CSCC6R8□T | 6800      | 10/5/2          | 7.9                        | 18       | 7.9                        | 40                                     | 4.90                       | 200            |
| HLC1008CSCC8R2□T | 8200      | 10/5/2          | 7.9                        | 18       | 7.9                        | 25                                     | 6.00                       | 170            |

※Operating temperature range : -25 to +85°C (including self-heating)

※Means the inductance tolerance, Tolerance : G = 2% , J = 5% , K = 10%

※IDC:Based on Temperature increase 40°C

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