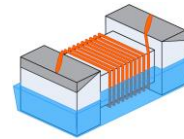


# Wire Wound Chip Ceramic Inductor –SDWL-C-N Series

Operating Temp. : -40°C~+125°C



## FEATURES

- Small chip suitable for surface mounting
- High Q value and high self-resonant frequency with ceramic material
- Tight inductance tolerance and high reliability

## APPLICATIONS

- High frequency circuit in telecommunication and other equipments
- Mobile phones and other electronic devices
- Bluetooth, W-LAN, Broadband network

## PRODUCT IDENTIFICATION

SDWL      1608      C      10N      J      S      T      F      N01  
 ①                      ②                      ③                      ④                      ⑤                      ⑥                      ⑦                      ⑧                      ⑨

①

| Type |                          |
|------|--------------------------|
| SDWL | Wire Wound Chip Inductor |

②

| External Dimensions |  |
|---------------------|--|
| 1608 [0603]         |  |

③

| Material Code |         |
|---------------|---------|
| C             | Ceramic |

④

| Nominal Inductance |               |
|--------------------|---------------|
| Example            | Nominal Value |
| 10N                | 10nH          |
| R10                | 100nH         |
| 1R0                | 1.0μH         |

⑤

| Inductance Tolerance |      |
|----------------------|------|
| G                    | ±2%  |
| J                    | ±5%  |
| K                    | ±10% |

⑥

| Feature Type |                                  |
|--------------|----------------------------------|
| S            | Sn Plating<br>Five-faces Coating |

⑦

| Packing |              |
|---------|--------------|
| B       | Bulk Package |
| T       | Tape & Reel  |

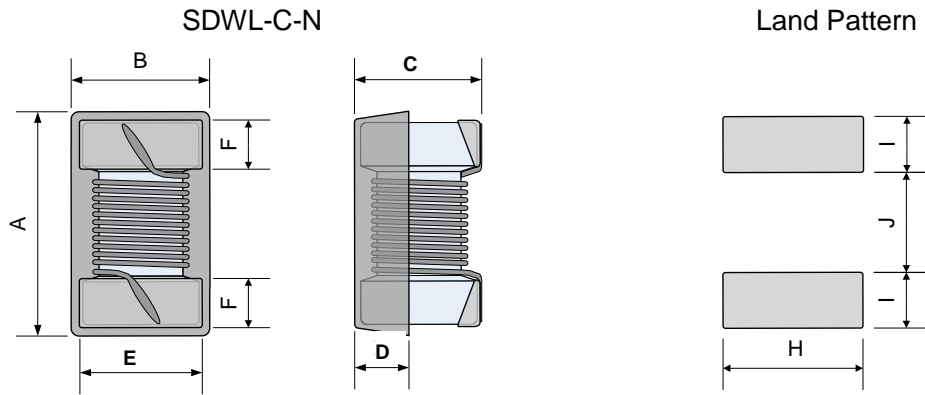
⑧

| Hazardous Substance Free Products |  |
|-----------------------------------|--|
| F                                 |  |

⑨

| Internal Code |               |
|---------------|---------------|
| N01           | Internal Code |

## SHAPE AND DIMENSIONS



Unit: mm

| Series        | A Max. | B Max. | C Max. | D Ref. | E Ref. | F Ref. | H Ref. | I Ref. | J Ref. |
|---------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| SDWL1608C-N01 | 1.80   | 1.12   | 1.02   | 0.38   | 0.80   | 0.30   | 1.02   | 0.64   | 0.64   |

## SPECIFICATIONS

### SDWL1608C-N01 TYPE

| Part Number         | Inductance | Tolerance | Min. Quality Factor | L/Q Test Freq. | Min. Self-resonant Frequency | Max. DC Resistance | Max. Rated Current |
|---------------------|------------|-----------|---------------------|----------------|------------------------------|--------------------|--------------------|
| Units               | nH         | -         | -                   | MHz            | MHz                          | $\Omega$           | mA                 |
| Symbol              | L          | -         | Q                   | Freq.          | S.R.F                        | DCR                | I <sub>r</sub>     |
| SDWL1608C1N6□STFN01 | 1.6        | S         | 24                  | 250            | 12500                        | 0.03               | 700                |
| SDWL1608C1N8□STFN01 | 1.8        | J, K      | 16                  | 250            | 12500                        | 0.045              | 700                |
| SDWL1608C2N2□STFN01 | 2.2        | J, K      | 13                  | 250            | 12500                        | 0.25               | 100                |
| SDWL1608C2N7□STFN01 | 2.7        | J, K      | 25                  | 250            | 6000                         | 0.043              | 1000               |
| SDWL1608C3N3□STFN01 | 3.3        | J, K      | 35                  | 250            | 5900                         | 0.045              | 700                |
| SDWL1608C3N6□STFN01 | 3.6        | J, K      | 22                  | 250            | 5900                         | 0.063              | 700                |
| SDWL1608C3N9□STFN01 | 3.9        | J, K      | 22                  | 250            | 6900                         | 0.08               | 700                |
| SDWL1608C4N3□STFN01 | 4.3        | J, K      | 22                  | 250            | 5900                         | 0.063              | 700                |
| SDWL1608C4N7□STFN01 | 4.7        | J, K      | 20                  | 250            | 5800                         | 0.116              | 700                |
| SDWL1608C5N1□STFN01 | 5.1        | J, K      | 20                  | 250            | 5700                         | 0.14               | 700                |
| SDWL1608C5N6□STFN01 | 5.6        | J, K      | 26                  | 250            | 4760                         | 0.075              | 700                |
| SDWL1608C6N8□STFN01 | 6.8        | G, J      | 27                  | 250            | 5800                         | 0.11               | 700                |
| SDWL1608C7N5□STFN01 | 7.5        | G, J      | 28                  | 250            | 4800                         | 0.106              | 700                |
| SDWL1608C8N2□STFN01 | 8.2        | G, J      | 30                  | 250            | 4200                         | 0.115              | 700                |
| SDWL1608C8N7□STFN01 | 8.7        | G, J      | 28                  | 250            | 4600                         | 0.109              | 700                |
| SDWL1608C9N5□STFN01 | 9.5        | G, J      | 28                  | 250            | 5400                         | 0.135              | 700                |
| SDWL1608C10N□STFN01 | 10         | G, J      | 31                  | 250            | 4800                         | 0.13               | 700                |
| SDWL1608C11N□STFN01 | 11         | G, J      | 30                  | 250            | 4000                         | 0.13               | 700                |
| SDWL1608C12N□STFN01 | 12         | G, J      | 35                  | 250            | 4000                         | 0.13               | 700                |
| SDWL1608C15N□STFN01 | 15         | G, J      | 35                  | 250            | 4000                         | 0.17               | 700                |
| SDWL1608C16N□STFN01 | 16         | G, J      | 34                  | 250            | 3300                         | 0.17               | 700                |
| SDWL1608C18N□STFN01 | 18         | G, J      | 35                  | 250            | 3100                         | 0.17               | 700                |
| SDWL1608C22N□STFN01 | 22         | G, J      | 38                  | 250            | 3000                         | 0.19               | 700                |
| SDWL1608C23N□STFN01 | 23         | G, J      | 38                  | 250            | 2850                         | 0.19               | 700                |
| SDWL1608C24N□STFN01 | 24         | G, J      | 36                  | 250            | 2650                         | 0.19               | 700                |
| SDWL1608C27N□STFN01 | 27         | G, J      | 40                  | 250            | 2800                         | 0.22               | 600                |
| SDWL1608C30N□STFN01 | 30         | G, J      | 37                  | 250            | 2250                         | 0.22               | 600                |
| SDWL1608C33N□STFN01 | 33         | G, J      | 40                  | 250            | 2300                         | 0.22               | 600                |
| SDWL1608C36N□STFN01 | 36         | G, J      | 37                  | 250            | 2080                         | 0.25               | 600                |

# SPECIFICATIONS

## SDWL1608C-N01 TYPE

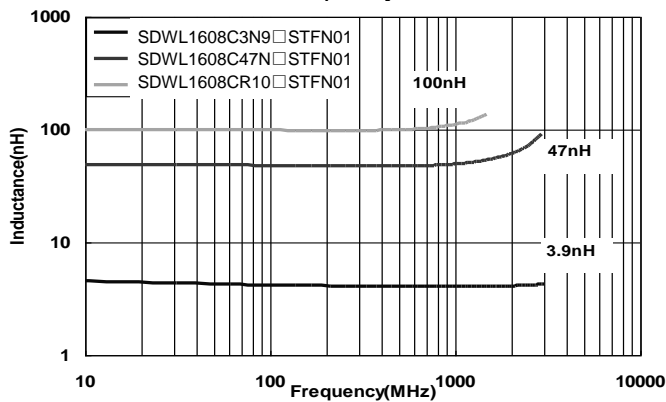
| Part Number         | Inductance | Tolerance | Min. Quality Factor | L/Q Test Freq. | Min. Self-resonant Frequency | Max. DC Resistance | Max. Rated Current |
|---------------------|------------|-----------|---------------------|----------------|------------------------------|--------------------|--------------------|
| Units               | nH         | -         | -                   | MHz            | MHz                          | $\Omega$           | mA                 |
| Symbol              | L          | -         | Q                   | Freq.          | S.R.F                        | DCR                | Ir                 |
| SDWL1608C39N□STFN01 | 39         | G, J      | 40                  | 250            | 2200                         | 0.25               | 600                |
| SDWL1608C43N□STFN01 | 43         | G, J      | 38                  | 250            | 2000                         | 0.28               | 600                |
| SDWL1608C47N□STFN01 | 47         | G, J      | 38                  | 200            | 2000                         | 0.28               | 600                |
| SDWL1608C51N□STFN01 | 51         | G, J      | 35                  | 200            | 1900                         | 0.25               | 600                |
| SDWL1608C56N□STFN01 | 56         | G, J      | 38                  | 200            | 1900                         | 0.31               | 600                |
| SDWL1608C68N□STFN01 | 68         | G, J      | 37                  | 200            | 1700                         | 0.34               | 600                |
| SDWL1608C72N□STFN01 | 72         | G, J      | 34                  | 150            | 1700                         | 0.49               | 400                |
| SDWL1608C82N□STFN01 | 82         | G, J      | 34                  | 150            | 1700                         | 0.54               | 400                |
| SDWL1608CR10□STFN01 | 100        | G, J      | 34                  | 150            | 1400                         | 0.58               | 400                |
| SDWL1608CR11□STFN01 | 110        | G, J      | 32                  | 150            | 1350                         | 0.61               | 300                |
| SDWL1608CR12□STFN01 | 120        | G, J      | 32                  | 150            | 1300                         | 0.65               | 300                |
| SDWL1608CR15□STFN01 | 150        | G, J      | 28                  | 150            | 990                          | 0.92               | 280                |
| SDWL1608CR18□STFN01 | 180        | G, J      | 25                  | 100            | 990                          | 1.25               | 240                |
| SDWL1608CR20□STFN01 | 200        | G, J      | 25                  | 100            | 900                          | 1.98               | 200                |
| SDWL1608CR21□STFN01 | 210        | G, J      | 27                  | 100            | 895                          | 2.06               | 200                |
| SDWL1608CR22□STFN01 | 220        | G, J      | 25                  | 100            | 900                          | 2.1                | 200                |
| SDWL1608CR23□STFN01 | 230        | G, J      | 25                  | 100            | 875                          | 2.12               | 190                |
| SDWL1608CR25□STFN01 | 250        | G, J      | 25                  | 100            | 822                          | 3.55               | 120                |
| SDWL1608CR27□STFN01 | 270        | G, J      | 26                  | 100            | 830                          | 2.16               | 170                |
| SDWL1608CR33□STFN01 | 330        | G, J      | 25                  | 100            | 900                          | 3.89               | 100                |
| SDWL1608CR39□STFN01 | 390        | G, J      | 25                  | 100            | 780                          | 4.35               | 100                |

※: Please refer to "Measurement Notice for RF Inductors".

# TYPICAL ELECTRICAL CHARACTERISTICS

## SDWL1608C-N01 TYPE

Inductance vs. Frequency Characteristics



Q vs. Frequency Characteristics

