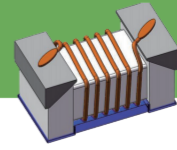


# Wire Wound Chip Ceramic Inductor –AWL -C -M Series



Operating Temp : -40°C ~+125°C

## FEATURES

- ◆ Small chip suitable for surface mounting
- ◆ High inductance tolerance and high reliability
- ◆ AEC-Q200 verified
- ◆ High Q value and high self-resonant frequency with ceramic material

## APPLICATIONS

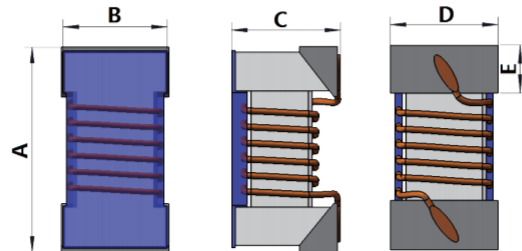
- ◆ Infotainment system
- ◆ Passive keyless entry
- ◆ Tire pressure monitoring system
- ◆ ADAS
- ◆ T-Box

## PRODUCT IDENTIFICATION

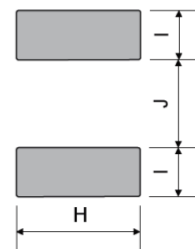
|                                                                                                |                                                                                                  |                                                              |                                                                                                                                                                                       |                                                                                                                                                                                                                                                            |                                                                                             |                                                                         |                                                                       |                                                                        |
|------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|--------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|-----------------------------------------------------------------------|------------------------------------------------------------------------|
| <div>1</div> <div>AWL</div>                                                                    | <div>2</div> <div>1005</div>                                                                     | <div>3</div> <div>C</div>                                    | <div>4</div> <div>10N</div>                                                                                                                                                           | <div>5</div> <div>J</div>                                                                                                                                                                                                                                  | <div>6</div> <div>S</div>                                                                   | <div>7</div> <div>T</div>                                               | <div>8</div> <div>F</div>                                             | <div>9</div> <div>M01</div>                                            |
| <div>1</div> <div>Type</div> <div>AWL</div> <div>Wire Wound Chip Inductor for Automotive</div> | <div>2</div> <div>External Dimensions (L×W) (mm)</div> <div>1005 [0402]</div> <div>1.0×0.5</div> | <div>3</div> <div>Code</div> <div>C</div> <div>Ceramic</div> | <div>4</div> <div>Nominal Inductance</div> <div>Example</div> <div>Nominal Value</div> <div>4N7</div> <div>4.7nH</div> <div>10N</div> <div>10nH</div> <div>R10</div> <div>100nH</div> | <div>5</div> <div>Inductance Tolerance</div> <div>B</div> <div>±0.1nH</div> <div>C</div> <div>±0.2nH</div> <div>D</div> <div>±0.5nH</div> <div>G</div> <div>±2%</div> <div>H</div> <div>±3%</div> <div>J</div> <div>±5%</div> <div>K</div> <div>±10%</div> | <div>6</div> <div>Feature Type</div> <div>S</div> <div>Sn Plating Single-side Coating</div> | <div>7</div> <div>Packing</div> <div>T</div> <div>Tape &amp; Reel</div> | <div>8</div> <div>Hazardous SubstanceFree Products</div> <div>F</div> | <div>9</div> <div>Internal Code</div> <div>M01</div> <div>Normal</div> |

## SHAPE AND DIMENSIONS

AWL-C-M



Recommended Land Pattern



Unit :mm

| A       | B        | C       | D       | E       | H <sub>REF.</sub> | I <sub>REF.</sub> | J <sub>REF.</sub> |
|---------|----------|---------|---------|---------|-------------------|-------------------|-------------------|
| 1.1±0.1 | 0.55±0.1 | 0.6±0.1 | 0.5±0.1 | 0.2±0.1 | 0.65              | 0.35              | 0.50              |

## SPECIFICATIONS AWL1005C-M01 TYPE

| Part Number          | Inductance | Tolerance  | Min. Quality Factor | L,Q Test Freq. | Max. DC Resistance | Max. Rated Current | Min. Self-resonant Frequency |
|----------------------|------------|------------|---------------------|----------------|--------------------|--------------------|------------------------------|
| Unit                 | nH         | -          | -                   | MHz            | Ω                  | mA                 | MHz                          |
| Symbol               | L          | -          | Q                   | Freq.          | DCR                | I <sub>r</sub>     | S.R.F                        |
| AWL1005C1N5 □ STFM01 | 1.5        | B, C, D    | 10                  | 100/250        | 0.03               | 1000               | 18000                        |
| AWL1005C1N6 □ STFM01 | 1.6        | C, D       | 10                  | 100/250        | 0.07               | 750                | 17000                        |
| AWL1005C1N7 □ STFM01 | 1.7        | C, D       | 10                  | 100/250        | 0.10               | 640                | 17000                        |
| AWL1005C1N8 □ STFM01 | 1.8        | C, D       | 10                  | 100/250        | 0.16               | 460                | 16000                        |
| AWL1005C2N4 □ STFM01 | 2.4        | B, C, D    | 20                  | 100/250        | 0.05               | 850                | 15000                        |
| AWL1005C2N5 □ STFM01 | 2.5        | B, C, D    | 20                  | 100/250        | 0.05               | 850                | 15000                        |
| AWL1005C2N6 □ STFM01 | 2.6        | B, C, D    | 20                  | 100/250        | 0.05               | 850                | 15000                        |
| AWL1005C2N7 □ STFM01 | 2.7        | B, C, D    | 20                  | 100/250        | 0.05               | 850                | 15000                        |
| AWL1005C2N8 □ STFM01 | 2.8        | B, C, D    | 20                  | 100/250        | 0.05               | 850                | 15000                        |
| AWL1005C2N9 □ STFM01 | 2.9        | B, C, D    | 20                  | 100/250        | 0.07               | 750                | 15000                        |
| AWL1005C3N0 □ STFM01 | 3.0        | B, C, D    | 20                  | 100/250        | 0.07               | 750                | 15000                        |
| AWL1005C3N1 □ STFM01 | 3.1        | B, C, D    | 20                  | 100/250        | 0.13               | 570                | 14000                        |
| AWL1005C3N2 □ STFM01 | 3.2        | B, C, D    | 15                  | 100/250        | 0.17               | 500                | 14000                        |
| AWL1005C3N9 □ STFM01 | 3.9        | C, D       | 25                  | 100/250        | 0.07               | 750                | 10000                        |
| AWL1005C4N1 □ STFM01 | 4.1        | B, C, D    | 25                  | 100/250        | 0.07               | 750                | 10000                        |
| AWL1005C4N3 □ STFM01 | 4.3        | B, C, D    | 25                  | 100/250        | 0.07               | 750                | 10000                        |
| AWL1005C4N4 □ STFM01 | 4.4        | B, C, D    | 25                  | 100/250        | 0.07               | 750                | 8000                         |
| AWL1005C4N5 □ STFM01 | 4.5        | B, C, D    | 25                  | 100/250        | 0.07               | 750                | 8000                         |
| AWL1005C4N6 □ STFM01 | 4.6        | B, C, D    | 25                  | 100/250        | 0.07               | 750                | 8000                         |
| AWL1005C4N7 □ STFM01 | 4.7        | B, C, D    | 25                  | 100/250        | 0.07               | 750                | 8000                         |
| AWL1005C4N8 □ STFM01 | 4.8        | B, C, D    | 25                  | 100/250        | 0.07               | 750                | 8000                         |
| AWL1005C4N9 □ STFM01 | 4.9        | B, C, D    | 25                  | 100/250        | 0.12               | 600                | 8000                         |
| AWL1005C5N0 □ STFM01 | 5.0        | B, C, D    | 25                  | 100/250        | 0.12               | 600                | 8000                         |
| AWL1005C5N1 □ STFM01 | 5.1        | B, C, D    | 25                  | 100/250        | 0.12               | 600                | 8000                         |
| AWL1005C5N8 □ STFM01 | 5.8        | B, C, D    | 25                  | 100/250        | 0.12               | 700                | 8000                         |
| AWL1005C6N2 □ STFM01 | 6.2        | B, C, D    | 25                  | 100/250        | 0.09               | 700                | 8000                         |
| AWL1005C6N3 □ STFM01 | 6.3        | B, C, D    | 25                  | 100/250        | 0.09               | 700                | 6000                         |
| AWL1005C6N4 □ STFM01 | 6.4        | B, C, D    | 25                  | 100/250        | 0.09               | 700                | 6000                         |
| AWL1005C6N5 □ STFM01 | 6.5        | B, C, D    | 25                  | 100/250        | 0.09               | 700                | 6000                         |
| AWL1005C6N6 □ STFM01 | 6.6        | B, C, D    | 25                  | 100/250        | 0.09               | 700                | 6000                         |
| AWL1005C6N7 □ STFM01 | 6.7        | B, C, D    | 25                  | 100/250        | 0.09               | 700                | 6000                         |
| AWL1005C6N8 □ STFM01 | 6.8        | G, H, J, K | 25                  | 100/250        | 0.09               | 700                | 6000                         |
| AWL1005C6N9 □ STFM01 | 6.9        | G, H, J, K | 25                  | 100/250        | 0.13               | 570                | 6000                         |
| AWL1005C7N0 □ STFM01 | 7.0        | G, H, J, K | 25                  | 100/250        | 0.13               | 570                | 6000                         |
| AWL1005C7N1 □ STFM01 | 7.1        | G, H, J, K | 25                  | 100/250        | 0.13               | 570                | 6000                         |
| AWL1005C7N2 □ STFM01 | 7.2        | G, H, J, K | 25                  | 100/250        | 0.13               | 570                | 6000                         |
| AWL1005C7N3 □ STFM01 | 7.3        | G, H, J, K | 25                  | 100/250        | 0.13               | 570                | 6000                         |
| AWL1005C7N5 □ STFM01 | 7.5        | G, H, J, K | 25                  | 100/250        | 0.13               | 570                | 6000                         |
| AWL1005C8N2 □ STFM01 | 8.2        | G, H, J, K | 25                  | 100/250        | 0.14               | 540                | 5500                         |
| AWL1005C8N6 □ STFM01 | 8.6        | G, H, J, K | 25                  | 100/250        | 0.14               | 540                | 5500                         |
| AWL1005C8N7 □ STFM01 | 8.7        | G, H, J, K | 25                  | 100/250        | 0.14               | 540                | 5500                         |
| AWL1005C8N8 □ STFM01 | 8.8        | G, H, J, K | 25                  | 100/250        | 0.14               | 540                | 5500                         |
| AWL1005C8N9 □ STFM01 | 8.9        | G, H, J, K | 25                  | 100/250        | 0.14               | 540                | 5500                         |
| AWL1005C9N0 □ STFM01 | 9.0        | G, H, J, K | 25                  | 100/250        | 0.14               | 540                | 5500                         |
| AWL1005C9N1 □ STFM01 | 9.1        | G, H, J, K | 25                  | 100/250        | 0.14               | 540                | 5500                         |
| AWL1005C9N2 □ STFM01 | 9.2        | G, H, J, K | 25                  | 100/250        | 0.14               | 540                | 5500                         |
| AWL1005C9N3 □ STFM01 | 9.3        | G, H, J, K | 25                  | 100/250        | 0.14               | 540                | 5500                         |
| AWL1005C9N4 □ STFM01 | 9.4        | G, H, J, K | 25                  | 100/250        | 0.14               | 540                | 5500                         |
| AWL1005C9N5 □ STFM01 | 9.5        | G, H, J, K | 25                  | 100/250        | 0.14               | 540                | 5500                         |
| AWL1005C9N6 □ STFM01 | 9.6        | G, H, J, K | 25                  | 100/250        | 0.14               | 540                | 5500                         |
| AWL1005C9N7 □ STFM01 | 9.7        | G, H, J, K | 25                  | 100/250        | 0.14               | 540                | 5500                         |
| AWL1005C9N8 □ STFM01 | 9.8        | G, H, J, K | 25                  | 100/250        | 0.14               | 540                | 5500                         |

## SPECIFICATIONS AWL1005C-M01 TYPE

| Part Number          | Inductance | Tolerance  | Min. Quality Factor | L,Q Test Freq. | Max. DC Resistance | Max. Rated Current | Min. Self-resonant Frequency |
|----------------------|------------|------------|---------------------|----------------|--------------------|--------------------|------------------------------|
| Unit                 | nH         | -          | -                   | MHz            | Ω                  | mA                 | MHz                          |
| Symbol               | L          | -          | Q                   | Freq.          | DCR                | I <sub>r</sub>     | S.R.F                        |
| AWL1005C9N9 □ STFM01 | 9.9        | G, H, J, K | 25                  | 100/250        | 0.14               | 540                | 5500                         |
| AWL1005C10N □ STFM01 | 10         | G, H, J, K | 25                  | 100/250        | 0.17               | 500                | 5500                         |
| AWL1005C11N □ STFM01 | 11         | G, H, J, K | 30                  | 100/250        | 0.14               | 500                | 5500                         |
| AWL1005C12N □ STFM01 | 12         | G, H, J, K | 30                  | 100/250        | 0.14               | 500                | 5500                         |
| AWL1005C13N □ STFM01 | 13         | G, H, J, K | 25                  | 100/250        | 0.21               | 430                | 5000                         |
| AWL1005C15N □ STFM01 | 15         | G, H, J, K | 30                  | 100/250        | 0.16               | 460                | 5000                         |
| AWL1005C16N □ STFM01 | 16         | G, H, J, K | 25                  | 100/250        | 0.24               | 370                | 4500                         |
| AWL1005C18N □ STFM01 | 18         | G, H, J, K | 25                  | 100/250        | 0.27               | 370                | 4500                         |
| AWL1005C19N □ STFM01 | 19         | G, H, J, K | 25                  | 100/250        | 0.27               | 370                | 4500                         |
| AWL1005C20N □ STFM01 | 20         | G, H, J, K | 25                  | 100/250        | 0.27               | 370                | 4000                         |
| AWL1005C22N □ STFM01 | 22         | G, H, J, K | 25                  | 100/250        | 0.30               | 310                | 4000                         |
| AWL1005C23N □ STFM01 | 23         | G, H, J, K | 25                  | 100/250        | 0.30               | 310                | 3800                         |
| AWL1005C24N □ STFM01 | 24         | G, H, J, K | 25                  | 100/250        | 0.52               | 280                | 3500                         |
| AWL1005C27N □ STFM01 | 27         | G, H, J, K | 25                  | 100/250        | 0.52               | 280                | 3500                         |
| AWL1005C30N □ STFM01 | 30         | G, H, J, K | 25                  | 100/250        | 0.58               | 270                | 3300                         |
| AWL1005C33N □ STFM01 | 33         | G, H, J, K | 25                  | 100/250        | 0.63               | 260                | 3200                         |
| AWL1005C36N □ STFM01 | 36         | G, H, J, K | 25                  | 100/250        | 0.63               | 260                | 3100                         |
| AWL1005C39N □ STFM01 | 39         | G, H, J, K | 25                  | 100/250        | 0.70               | 250                | 3000                         |
| AWL1005C40N □ STFM01 | 40         | G, H, J, K | 25                  | 100/250        | 0.70               | 250                | 3000                         |
| AWL1005C43N □ STFM01 | 43         | G, H, J, K | 25                  | 100/250        | 0.70               | 250                | 3000                         |
| AWL1005C47N □ STFM01 | 47         | G, H, J, K | 25                  | 100/200        | 1.08               | 210                | 2900                         |
| AWL1005C51N □ STFM01 | 51         | G, H, J, K | 25                  | 100/200        | 1.08               | 210                | 2850                         |
| AWL1005C56N □ STFM01 | 56         | G, H, J, K | 25                  | 100/200        | 1.17               | 200                | 2800                         |
| AWL1005C62N □ STFM01 | 62         | G, H, J, K | 20                  | 100/200        | 1.82               | 145                | 2600                         |
| AWL1005C68N □ STFM01 | 68         | G, H, J, K | 20                  | 100/200        | 1.96               | 140                | 2500                         |
| AWL1005C72N □ STFM01 | 72         | G, H, J, K | 20                  | 100/150        | 2.10               | 135                | 2500                         |
| AWL1005C75N □ STFM01 | 75         | G, H, J, K | 20                  | 100/150        | 2.10               | 135                | 2400                         |
| AWL1005C82N □ STFM01 | 82         | G, H, J, K | 20                  | 100/150        | 2.24               | 130                | 2300                         |
| AWL1005C91N □ STFM01 | 91         | G, H, J, K | 20                  | 100/150        | 2.38               | 125                | 2100                         |
| AWL1005CR10 □ STFM01 | 100        | G, H, J, K | 20                  | 100/150        | 2.52               | 120                | 1500                         |

※ □ : Please specify the inductance tolerance code (B=±0.1nH,C=±0.2nH, D=±0.5nH,G=±2%,H=±3%,J=±5%,K= ±10%)