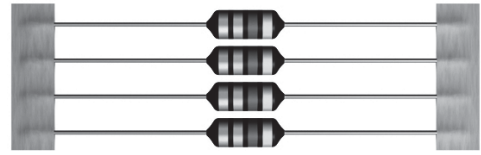


### 1. Features

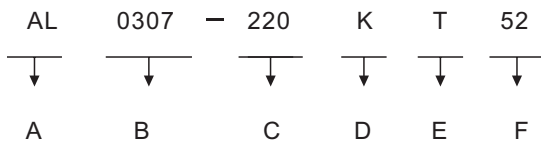
- Wide inductance range
- Suitable for general-purpose application
- Special versions available
- Suitable for wave soldering
- RoHS-compatible



### 2. APPLICATIONS

- RF blocking and filtering
  - Decoupling and interference suppression
  - For antenna systems, automotive electronics, energy-saving lamps, entertainment electronics
- USB2.0 of IEEE1394, PC, peripheral equipments, small digital AV equipments, etc.
  - LVDS lines of Note PC, LCD
  - Audio lines

### 3 PRODUCT IDENTIFICATION



A:

| Product type |                           |
|--------------|---------------------------|
| AL           | Axial color code inductor |

B:

| Body Dimensions(mm) |      |      |
|---------------------|------|------|
| Type                | Dmax | Lmax |
| 0204                | 2.3  | 4.2  |
| 0307                | 2.8  | 7.0  |
| 0410                | 4.0  | 10.5 |
| 0510                | 5.0  | 10.5 |

C:

| Nominal Inductance( $\mu$ H)  |
|---|
| <p>★ The first two digits are significant, and the third digit is number of zero</p> <p>For example;</p> <p>101=100 <math>\mu</math> H</p> <p>5R6=5.6 <math>\mu</math> H</p> <p>R22=0.22 <math>\mu</math> H</p> |

D:

| Tolerance |           |
|-----------|-----------|
| J         | $\pm$ 5%  |
| K         | $\pm$ 10% |
| M         | $\pm$ 20% |

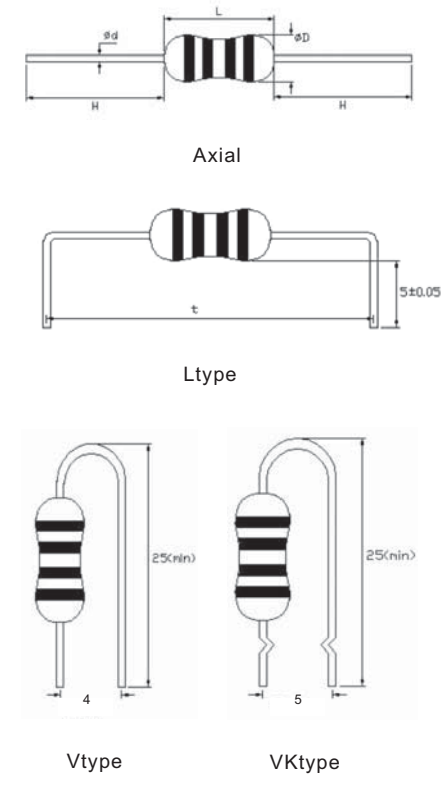
**PRODUCT IDENTIFICATION**
**E:**

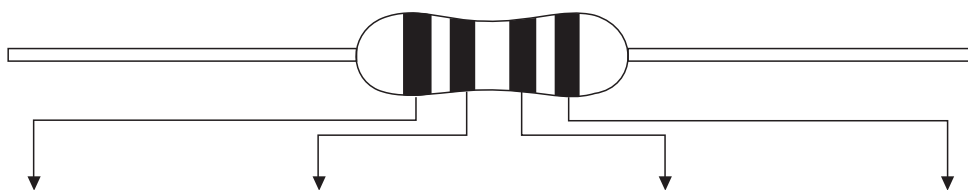
| Packaging style |    |                      |
|-----------------|----|----------------------|
| reel            | T  | Reel                 |
| Bulk            | F  | Axial                |
|                 | L  | Straight lead formed |
|                 | V  | Bent lead formed     |
|                 | VK | Bent lead K formed   |

**F:**

| Lead configuration |    |                           |
|--------------------|----|---------------------------|
| reel               | 52 | Tape width: 52            |
| Formed lead        | 05 | Formed lead pitch: 5.08mm |
|                    | 07 | Formed lead pitch: 7.5mm  |
|                    | 10 | Formed lead pitch: 10.0mm |
|                    | 12 | Formed lead pitch: 12.5mm |
|                    | 15 | Formed lead pitch: 15.0mm |
|                    | 17 | Formed lead pitch: 17.5mm |
|                    | 20 | Formed lead pitch: 20.0mm |

**4. Shape and Dimensions**

| Type   | Dimensions (mm) |          |  |             |          |   |
|--------|-----------------|----------|--|-------------|----------|---|
|        | $\Phi D \leq$   | $L \leq$ | t  | $\phi d$    | $H \geq$ |   |
| AL0204 | 2.3             | 4.2      | t=5.08 ± 0.6<br>t=7.50 ± 0.6                                 | 0.50 ± 0.05 |          |  <p>Axial</p> <p>Ltype</p> <p>Vtype</p> <p>VKtype</p> |
| AL0307 | 2.8             | 7.0      | t=10.0 ± 0.6<br>t=12.5 ± 0.6                                 | 0.50 ± 0.05 |          |   |
| AL0410 | 4.0             | 10.5     | t=12.5 ± 0.6<br>t=15.0 ± 0.6<br>t=17.5 ± 0.6<br>t=20.0 ± 0.6 | 0.60 ± 0.05 | 20       |   |
| AL0510 | 5.0             | 10.5     | t=15.0 ± 0.6<br>t=17.5 ± 0.6<br>t=20.0 ± 0.6                 | 0.60 ± 0.05 |          |   |

**5. MARING**


|        | Nominal inductance        |                           |                           | Tolerance                  |
|--------|---------------------------|---------------------------|---------------------------|----------------------------|
|        | 1 <sup>st</sup> colorzone | 2 <sup>nd</sup> colorzone | 3 <sup>rd</sup> colorzone | 4 <sup>th</sup> color zone |
|        | 1 <sup>st</sup> digit     | 2 <sup>nd</sup> digit     | 3 <sup>rd</sup> digit     |                            |
| Black  | 0                         | 0                         | $\times 10^0$ (1)         | M: $\pm 20\%$              |
| Brown  | 1                         | 1                         | $\times 10^1$ (10)        |                            |
| Red    | 2                         | 2                         | $\times 10^2$ (100)       |                            |
| Orange | 3                         | 3                         | $\times 10^3$ (1000)      |                            |
| Yellow | 4                         | 4                         | $\times 10^4$ (10000)     |                            |
| Green  | 5                         | 5                         | $\times 10^5$ (100000)    |                            |
| Blue   | 6                         | 6                         |                           |                            |
| Purple | 7                         | 7                         |                           |                            |
| Gray   | 8                         | 8                         |                           |                            |
| White  | 9                         | 9                         |                           |                            |
| Gold   | /                         | /                         | $\times 10^{-1}$ (0.1)    | J: $\pm 5\%$               |
| Silver | /                         | /                         | $\times 10^{-2}$ (0.01)   | K: $\pm 10\%$              |

**For example:**

If nominal inductance & tolerance is  $22 \mu\text{H}$ ,  $\pm 5\%$ , respectively, red+red+black+gold should be marked.

If nominal inductance & tolerance is  $1.0 \mu\text{H}$ ,  $\pm 10\%$ , respectively, brown+black+gold+silver should be marked.

If nominal inductance & tolerance is  $0.22 \mu\text{H}$ ,  $\pm 20\%$ , respectively, red+red+silver+black should be marked.

NOTE: only the first three color zones are marked on the body of LGA0204, due to the small body size.

**Appendix A: Electrical Characteristics**
**I. AL0204 TYPE INDUCTORS ELECTRICAL CHARACTERISTICS&TEST CONDITIONS**

| AL0204 Type | Nominal Inductance (μH) | Q (min) | RDC (Ω) max | Test frequency (MHZ) | SRF (MHZ)min | Rated current I <sub>DC</sub> (mA)max |
|-------------|-------------------------|---------|-------------|----------------------|--------------|---------------------------------------|
| AL0204-R22  | 0.22                    | 35      | 0.40        | 25.2                 | 150          | 400                                   |
| AL0204-R27  | 0.27                    | 35      | 0.43        | 25.2                 | 150          | 380                                   |
| AL0204-R33  | 0.33                    | 35      | 0.48        | 25.2                 | 150          | 370                                   |
| AL0204-R39  | 0.39                    | 35      | 0.51        | 25.2                 | 150          | 350                                   |
| AL0204-R47  | 0.47                    | 35      | 0.56        | 25.2                 | 150          | 330                                   |
| AL0204-R56  | 0.56                    | 35      | 0.61        | 25.2                 | 150          | 320                                   |
| AL0204-R68  | 0.68                    | 35      | 0.67        | 25.2                 | 150          | 310                                   |
| AL0204-R82  | 0.82                    | 35      | 0.74        | 25.2                 | 150          | 290                                   |
| AL0204-1R0  | 1.0                     | 35      | 0.80        | 25.2                 | 150          | 270                                   |
| AL0204-1R2  | 1.2                     | 40      | 0.90        | 7.96                 | 110          | 260                                   |
| AL0204-1R5  | 1.5                     | 40      | 1.0         | 7.96                 | 80           | 250                                   |
| AL0204-1R8  | 1.8                     | 40      | 1.1         | 7.96                 | 60           | 240                                   |
| AL0204-2R2  | 2.2                     | 40      | 1.2         | 7.96                 | 45           | 230                                   |
| AL0204-2R7  | 2.7                     | 40      | 1.3         | 7.96                 | 40           | 220                                   |
| AL0204-3R3  | 3.3                     | 40      | 1.4         | 7.96                 | 38           | 210                                   |
| AL0204-3R9  | 3.9                     | 40      | 1.6         | 7.96                 | 35           | 200                                   |
| AL0204-4R7  | 4.7                     | 40      | 1.7         | 7.96                 | 32           | 190                                   |
| AL0204-5R6  | 5.6                     | 40      | 1.9         | 7.96                 | 30           | 180                                   |
| AL0204-6R8  | 6.8                     | 40      | 2.0         | 7.96                 | 28           | 175                                   |
| AL0204-8R2  | 8.2                     | 40      | 2.2         | 7.96                 | 26           | 165                                   |
| AL0204-100  | 10                      | 40      | 2.5         | 7.96                 | 24           | 160                                   |
| AL0204-120  | 12                      | 40      | 2.6         | 2.52                 | 22           | 150                                   |
| AL0204-150  | 15                      | 40      | 2.8         | 2.52                 | 20           | 145                                   |
| AL0204-180  | 18                      | 40      | 3.1         | 2.52                 | 18           | 140                                   |
| AL0204-220  | 22                      | 40      | 3.4         | 2.52                 | 17           | 130                                   |
| AL0204-270  | 27                      | 40      | 4.3         | 2.52                 | 16           | 80                                    |
| AL0204-330  | 33                      | 40      | 4.7         | 2.52                 | 14           | 76                                    |
| AL0204-390  | 39                      | 40      | 5.2         | 2.52                 | 13           | 74                                    |
| AL0204-470  | 47                      | 40      | 5.8         | 2.52                 | 12           | 70                                    |
| AL0204-560  | 56                      | 40      | 6.4         | 2.52                 | 11           | 68                                    |
| AL0204-680  | 68                      | 40      | 7.2         | 2.52                 | 10           | 64                                    |
| AL0204-820  | 82                      | 40      | 11.0        | 2.52                 | 9.5          | 46                                    |
| AL0204-101  | 100                     | 40      | 12.0        | 2.52                 | 9.0          | 44                                    |
| AL0204-121  | 120                     | 40      | 13.0        | 0.796                | 8.0          | 42                                    |
| AL0204-151  | 150                     | 40      | 16.0        | 0.796                | 6.0          | 39                                    |
| AL0204-181  | 180                     | 40      | 18.0        | 0.796                | 5.5          | 37                                    |
| AL0204-221  | 220                     | 40      | 20.0        | 0.796                | 5.0          | 35                                    |

|                |                            |         |        |          |
|----------------|----------------------------|---------|--------|----------|
| Test equipment | HP4285A (HP4286A, HP4287A) | HP4338B | HM9461 | HP42841A |
|----------------|----------------------------|---------|--------|----------|

Ambient temperature 18~25℃

Ambient humidity 45%~75%

**Appendix A: Electrical Characteristics**
**II. AL0307 TYPE INDUCTORS ELECTRICAL CHARACTERISTICS&TEST CONDITIONS**

| AL0307 Type | Nominal Inductance ( $\mu\text{H}$ ) | Q (min) | RDC ( $\Omega$ ) max | Test frequency (MHZ) | SRF (MHZ)min | Rated current $I_{oc}$ (mA)max |
|-------------|--------------------------------------|---------|----------------------|----------------------|--------------|--------------------------------|
| AL0307-R10  | 0.10                                 | 35      | 0.35                 | 25.2                 | 150          | 450                            |
| AL0307-R15  | 0.15                                 | 35      | 0.38                 | 25.2                 | 150          | 420                            |
| AL0307-R22  | 0.22                                 | 35      | 0.40                 | 25.2                 | 150          | 400                            |
| AL0307-R27  | 0.27                                 | 35      | 0.43                 | 25.2                 | 150          | 380                            |
| AL0307-R33  | 0.33                                 | 35      | 0.48                 | 25.2                 | 150          | 370                            |
| AL0307-R47  | 0.47                                 | 35      | 0.56                 | 25.2                 | 150          | 330                            |
| AL0307-R68  | 0.68                                 | 35      | 0.67                 | 25.2                 | 150          | 310                            |
| AL0307-1R0  | 1.0                                  | 35      | 0.80                 | 25.2                 | 150          | 270                            |
| AL0307-1R2  | 1.2                                  | 40      | 0.90                 | 7.96                 | 144          | 260                            |
| AL0307-1R5  | 1.5                                  | 40      | 1.0                  | 7.96                 | 131          | 250                            |
| AL0307-1R8  | 1.8                                  | 50      | 1.1                  | 7.96                 | 121          | 240                            |
| AL0307-2R2  | 2.2                                  | 50      | 1.2                  | 7.96                 | 110          | 230                            |
| AL0307-2R4  | 2.4                                  | 50      | 1.3                  | 7.96                 | 100          | 220                            |
| AL0307-2R7  | 2.7                                  | 50      | 1.3                  | 7.96                 | 100          | 220                            |
| AL0307-3R3  | 3.3                                  | 50      | 1.4                  | 7.96                 | 94           | 210                            |
| AL0307-3R6  | 3.6                                  | 50      | 1.6                  | 7.96                 | 65           | 200                            |
| AL0307-3R9  | 3.9                                  | 50      | 1.6                  | 7.96                 | 65           | 200                            |
| AL0307-4R2  | 4.2                                  | 50      | 1.7                  | 7.96                 | 56           | 190                            |
| AL0307-4R3  | 4.3                                  | 50      | 1.7                  | 7.96                 | 56           | 190                            |
| AL0307-4R7  | 4.7                                  | 50      | 1.7                  | 7.96                 | 56           | 190                            |
| AL0307-5R6  | 5.6                                  | 50      | 1.9                  | 7.96                 | 48           | 180                            |
| AL0307-6R8  | 6.8                                  | 50      | 2.0                  | 7.96                 | 37           | 175                            |
| AL0307-8R2  | 8.2                                  | 50      | 2.2                  | 7.96                 | 25           | 165                            |
| AL0307-100  | 10                                   | 50      | 2.5                  | 7.96                 | 21           | 160                            |
| AL0307-120  | 12                                   | 50      | 2.6                  | 2.52                 | 19           | 150                            |
| AL0307-150  | 15                                   | 50      | 2.8                  | 2.52                 | 17           | 145                            |
| AL0307-180  | 18                                   | 50      | 3.1                  | 2.52                 | 13           | 140                            |
| AL0307-220  | 22                                   | 50      | 3.4                  | 2.52                 | 9.6          | 130                            |
| AL0307-270  | 27                                   | 50      | 3.8                  | 2.52                 | 7.2          | 125                            |
| AL0307-330  | 33                                   | 50      | 4.1                  | 2.52                 | 6.3          | 120                            |
| AL0307-360  | 36                                   | 50      | 4.5                  | 2.52                 | 6.3          | 115                            |
| AL0307-390  | 39                                   | 50      | 4.5                  | 2.52                 | 6.3          | 115                            |
| AL0307-430  | 43                                   | 50      | 4.9                  | 2.52                 | 6.3          | 110                            |
| AL0307-470  | 47                                   | 50      | 4.9                  | 2.52                 | 6.3          | 110                            |
| AL0307-560  | 56                                   | 50      | 5.3                  | 2.52                 | 6.2          | 105                            |
| AL0307-600  | 60                                   | 50      | 5.8                  | 2.52                 | 5.7          | 100                            |
| AL0307-620  | 62                                   | 50      | 5.8                  | 2.52                 | 5.7          | 100                            |
| AL0307-680  | 68                                   | 50      | 5.8                  | 2.52                 | 5.7          | 100                            |
| AL0307-750  | 75                                   | 50      | 6.3                  | 2.52                 | 5.3          | 95                             |
| AL0307-820  | 82                                   | 50      | 6.3                  | 2.52                 | 5.3          | 95                             |
| AL0307-910  | 91                                   | 50      | 6.3                  | 2.52                 | 5.3          | 95                             |
| AL0307-101  | 100                                  | 50      | 7.0                  | 2.52                 | 4.8          | 90                             |
| AL0307-121  | 120                                  | 50      | 13.0                 | 0.796                | 3.8          | 90                             |
| AL0307-151  | 150                                  | 50      | 15.0                 | 0.796                | 3.5          | 85                             |
| AL0307-181  | 180                                  | 50      | 16.0                 | 0.796                | 3.3          | 80                             |
| AL0307-201  | 200                                  | 50      | 17.0                 | 0.796                | 3.0          | 75                             |
| AL0307-221  | 220                                  | 50      | 17.0                 | 0.796                | 3.0          | 75                             |
| AL0307-271  | 270                                  | 50      | 19.0                 | 0.796                | 2.8          | 65                             |
| AL0307-331  | 330                                  | 50      | 20.0                 | 0.796                | 2.6          | 60                             |
| AL0307-391  | 390                                  | 50      | 22.0                 | 0.796                | 2.4          | 55                             |
| AL0307-471  | 470                                  | 50      | 24.0                 | 0.796                | 2.25         | 55                             |
| AL0307-561  | 560                                  | 50      | 26.0                 | 0.796                | 2.10         | 50                             |
| AL0307-621  | 620                                  | 50      | 28.0                 | 0.796                | 1.95         | 45                             |
| AL0307-681  | 680                                  | 50      | 28.0                 | 0.796                | 1.95         | 45                             |
| AL0307-821  | 820                                  | 50      | 30.0                 | 0.796                | 1.85         | 40                             |
| AL0307-102  | 1000                                 | 50      | 33.0                 | 0.796                | 1.40         | 40                             |

**Appendix A: Electrical Characteristics**

|                     |                            |         |        |          |
|---------------------|----------------------------|---------|--------|----------|
| Test equipment      | HP4285A (HP4286A, HP4287A) | HP4338B | HM9461 | HP42841A |
| Ambient temperature | 18~25°C                    |         |        |          |
| Ambient humidity    | 45%~75%                    |         |        |          |

**III. AL0410 TYPE INDUCTORS ELECTRICAL CHARACTERISTICS & TEST CONDITIONS**

| AL0410 Type | Nominal Inductance ( $\mu$ H) | Q (min) | RDC ( $\Omega$ ) max | Test frequency (MHZ) | SRF (MHZ)min | Rated current $I_{DC}$ (mA)max |
|-------------|-------------------------------|---------|----------------------|----------------------|--------------|--------------------------------|
| AL0410-R22  | 0.22                          | 45      | 0.10                 | 25.2                 | 300          | 1400                           |
| AL0410-R27  | 0.27                          | 45      | 0.11                 | 25.2                 | 270          | 1320                           |
| AL0410-R33  | 0.33                          | 45      | 0.12                 | 25.2                 | 250          | 1280                           |
| AL0410-R47  | 0.47                          | 45      | 0.14                 | 25.2                 | 220          | 1150                           |
| AL0410-R56  | 0.56                          | 45      | 0.15                 | 25.2                 | 200          | 1122                           |
| AL0410-R68  | 0.68                          | 45      | 0.16                 | 25.2                 | 190          | 1030                           |
| AL0410-1R0  | 1.0                           | 45      | 0.19                 | 25.2                 | 157          | 920                            |
| AL0410-1R2  | 1.2                           | 50      | 0.21                 | 7.96                 | 144          | 880                            |
| AL0410-1R5  | 1.5                           | 50      | 0.23                 | 7.96                 | 131          | 830                            |
| AL0410-1R8  | 1.8                           | 55      | 0.25                 | 7.96                 | 121          | 790                            |
| AL0410-2R2  | 2.2                           | 55      | 0.28                 | 7.96                 | 110          | 750                            |
| AL0410-2R7  | 2.7                           | 60      | 0.30                 | 7.96                 | 100          | 720                            |
| AL0410-3R3  | 3.3                           | 65      | 0.34                 | 7.96                 | 94           | 670                            |
| AL0410-3R9  | 3.9                           | 65      | 0.37                 | 7.96                 | 65           | 640                            |
| AL0410-4R2  | 4.2                           | 70      | 0.39                 | 7.96                 | 56           | 620                            |
| AL0410-4R7  | 4.7                           | 70      | 0.39                 | 7.96                 | 56           | 620                            |
| AL0410-5R6  | 5.6                           | 70      | 0.43                 | 7.96                 | 48           | 590                            |
| AL0410-6R2  | 6.2                           | 75      | 0.48                 | 7.96                 | 37           | 550                            |
| AL0410-6R8  | 6.8                           | 75      | 0.48                 | 7.96                 | 37           | 550                            |
| AL0410-7R5  | 7.5                           | 80      | 0.52                 | 7.96                 | 25           | 530                            |
| AL0410-8R2  | 8.2                           | 80      | 0.52                 | 7.96                 | 25           | 530                            |
| AL0410-100  | 10                            | 65      | 0.58                 | 7.96                 | 21           | 500                            |
| AL0410-120  | 12                            | 50      | 0.63                 | 2.52                 | 19           | 480                            |
| AL0410-150  | 15                            | 50      | 0.72                 | 2.52                 | 17           | 460                            |
| AL0410-180  | 18                            | 50      | 0.77                 | 2.52                 | 13           | 430                            |
| AL0410-220  | 22                            | 50      | 0.84                 | 2.52                 | 9.6          | 410                            |
| AL0410-270  | 27                            | 55      | 0.94                 | 2.52                 | 7.2          | 390                            |
| AL0410-330  | 33                            | 55      | 1.03                 | 2.52                 | 6.3          | 370                            |
| AL0410-360  | 36                            | 50      | 1.12                 | 2.52                 | 6.3          | 350                            |
| AL0410-390  | 39                            | 50      | 1.12                 | 2.52                 | 6.3          | 350                            |
| AL0410-470  | 47                            | 45      | 1.22                 | 2.52                 | 6.3          | 340                            |
| AL0410-560  | 56                            | 40      | 1.34                 | 2.52                 | 6.2          | 320                            |
| AL0410-680  | 68                            | 40      | 1.47                 | 2.52                 | 5.7          | 305                            |
| AL0410-730  | 73                            | 40      | 1.47                 | 2.52                 | 5.7          | 305                            |
| AL0410-750  | 75                            | 35      | 1.62                 | 2.52                 | 5.3          | 290                            |
| AL0410-810  | 81                            | 35      | 1.62                 | 2.52                 | 5.3          | 290                            |
| AL0410-820  | 82                            | 35      | 1.62                 | 2.52                 | 5.3          | 290                            |
| AL0410-900  | 90                            | 35      | 1.62                 | 2.52                 | 5.3          | 290                            |
| AL0410-101  | 100                           | 30      | 1.80                 | 2.52                 | 4.8          | 275                            |
| AL0410-111  | 110                           | 55      | 3.70                 | 0.796                | 3.8          | 185                            |
| AL0410-121  | 120                           | 55      | 3.70                 | 0.796                | 3.8          | 185                            |
| AL0410-141  | 140                           | 45      | 4.20                 | 0.796                | 3.5          | 175                            |
| AL0410-151  | 150                           | 45      | 4.20                 | 0.796                | 3.5          | 175                            |
| AL0410-181  | 180                           | 50      | 4.60                 | 0.796                | 3.3          | 165                            |
| AL0410-221  | 220                           | 55      | 5.10                 | 0.796                | 3.0          | 155                            |

**Appendix A: Electrical Characteristics**
**III. AL0410 TYPE INDUCTORS ELECTRICAL CHARACTERISTICS & TEST CONDITIONS**

| AL0410 Type         | Nominal Inductance ( $\mu$ H) | Q (min) | RDC ( $\Omega$ ) max | Test frequency (MHZ) | SRF (MHZ)min | Rated current $I_{DC}$ (mA)max |
|---------------------|-------------------------------|---------|----------------------|----------------------|--------------|--------------------------------|
| AL0410-271          | 270                           | 65      | 5.80                 | 0.796                | 2.8          | 145                            |
| AL0410-331          | 330                           | 65      | 6.40                 | 0.796                | 2.6          | 137                            |
| AL0410-391          | 390                           | 65      | 7.00                 | 0.796                | 2.4          | 133                            |
| AL0410-471          | 470                           | 60      | 7.70                 | 0.796                | 2.25         | 126                            |
| AL0410-561          | 560                           | 60      | 8.50                 | 0.796                | 2.10         | 120                            |
| AL0410-681          | 680                           | 55      | 9.40                 | 0.796                | 1.95         | 113                            |
| AL0410-821          | 820                           | 55      | 10.50                | 0.796                | 1.85         | 105                            |
| AL0410-102          | 1000                          | 50      | 14.00                | 0.796                | 1.40         | 100                            |
| AL0410-122          | 1200                          | 50      | 20.00                | 0.252                | 1.20         | 90                             |
| AL0410-152          | 1500                          | 30      | 25.00                | 0.252                | 1.10         | 85                             |
| AL0410-172          | 1700                          | 30      | 30.00                | 0.252                | 0.90         | 80                             |
| AL0410-182          | 1800                          | 30      | 30.00                | 0.252                | 0.90         | 80                             |
| AL0410-202          | 2000                          | 30      | 30.00                | 0.252                | 0.80         | 75                             |
| AL0410-222          | 2200                          | 30      | 35.00                | 0.252                | 0.80         | 75                             |
| AL0410-252          | 2500                          | 30      | 40.00                | 0.252                | 0.70         | 70                             |
| AL0410-272          | 2700                          | 30      | 40.00                | 0.252                | 0.70         | 70                             |
| AL0410-302          | 3000                          | 30      | 65.00                | 0.252                | 0.65         | 65                             |
| AL0410-332          | 3300                          | 30      | 65.00                | 0.252                | 0.65         | 65                             |
| AL0410-392          | 3900                          | 30      | 71.00                | 0.252                | 0.65         | 50                             |
| AL0410-472          | 4700                          | 30      | 78.00                | 0.252                | 0.60         | 40                             |
| AL0410-562          | 5600                          | 30      | 100.00               | 0.252                | 0.56         | 30                             |
| AL0410-682          | 6800                          | 30      | 125.00               | 0.252                | 0.54         | 30                             |
| Test equipment      | HP4285A (HP4286A, HP4287A)    |         | HP4338B              |                      | HM9461       | HP42841A                       |
| Ambient temperature | 18~25°C                       |         |                      |                      |              |                                |
| Ambient humidity    | 45%~75%                       |         |                      |                      |              |                                |

**IV. AL0510 TYPE INDUCTORS ELECTRICAL CHARACTERISTICS & TEST CONDITIONS**

| AL0510 Type | Nominal Inductance ( $\mu$ H) | Q (min) | RDC ( $\Omega$ ) max | Test frequency (MHZ) | SRF (MHZ)min | Rated current $I_{DC}$ (mA)max |
|-------------|-------------------------------|---------|----------------------|----------------------|--------------|--------------------------------|
| AL0510-2R2  | 2.2                           | 20      | 0.05                 | 7.96                 | 50           | 126                            |
| AL0510-3R3  | 3.3                           | 20      | 0.06                 | 7.96                 | 50           | 126                            |
| AL0510-3R9  | 3.9                           | 20      | 0.06                 | 7.96                 | 50           | 126                            |
| AL0510-4R7  | 4.7                           | 20      | 0.06                 | 7.96                 | 45           | 900                            |
| AL0510-5R6  | 5.6                           | 20      | 0.36                 | 7.96                 | 45           | 126                            |
| AL0510-6R8  | 6.8                           | 20      | 0.36                 | 7.96                 | 45           | 126                            |
| AL0510-100  | 10                            | 60      | 0.45                 | 7.96                 | 30           | 126                            |
| AL0510-220  | 22                            | 60      | 0.65                 | 2.52                 | 8.0          | 450                            |
| AL0510-330  | 33                            | 60      | 0.65                 | 0.796                | 1.9          | 126                            |
| AL0510-470  | 47                            | 60      | 0.65                 | 0.796                | 1.9          | 126                            |
| AL0510-680  | 68                            | 60      | 0.74                 | 0.796                | 1.9          | 126                            |
| AL0510-820  | 82                            | 20      | 0.82                 | 2.52                 | 3.8          | 330                            |
| AL0510-101  | 100                           | 30      | 0.75                 | 2.52                 | 3.5          | 300                            |
| AL0510-121  | 120                           | 20      | 1.2                  | 0.796                | 3.3          | 250                            |
| AL0510-151  | 150                           | 20      | 1.8                  | 0.796                | 3.2          | 225                            |
| AL0510-181  | 180                           | 20      | 2.0                  | 0.796                | 2.8          | 200                            |

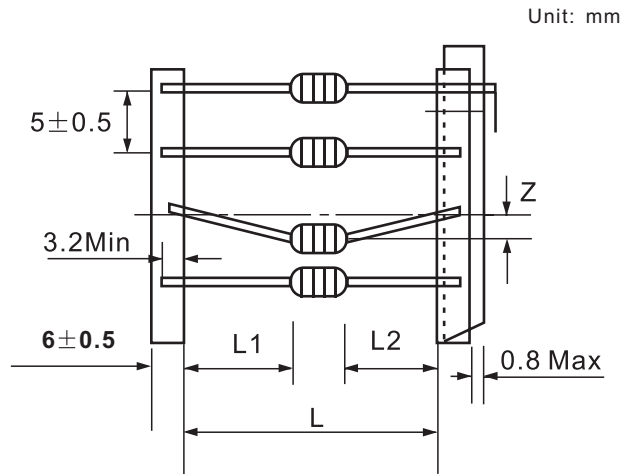
**Appendix A: Electrical Characteristics**
**IV. AL0510 TYPE INDUCTORS ELECTRICAL CHARACTERISTICS & TEST CONDITIONS**

| AL0510 Type | Nominal Inductance (μH) | Q (min) | RDC (Ω) max | Test frequency (MHZ) | SRF (MHZ)min | Rated current I <sub>dc</sub> (mA)max |
|-------------|-------------------------|---------|-------------|----------------------|--------------|---------------------------------------|
| AL0510-221  | 220                     | 30      | 2.1         | 0.796                | 2.6          | 180                                   |
| AL0510-271  | 270                     | 30      | 2.5         | 0.796                | 2.4          | 170                                   |
| AL0510-331  | 330                     | 30      | 3.0         | 0.796                | 2.2          | 160                                   |
| AL0510-391  | 390                     | 30      | 3.5         | 0.796                | 2.0          | 150                                   |
| AL0510-471  | 470                     | 60      | 7.70        | 0.796                | 1.9          | 126                                   |
| AL0510-561  | 560                     | 50      | 8.50        | 0.796                | 1.8          | 120                                   |
| AL0510-681  | 680                     | 55      | 9.00        | 0.796                | 1.5          | 113                                   |
| AL0510-801  | 800                     | 50      | 9.90        | 0.796                | 1.5          | 113                                   |
| AL0510-821  | 820                     | 45      | 10.5        | 0.796                | 1.2          | 105                                   |
| AL0510-102  | 1000                    | 45      | 14.0        | 0.252                | 1.0          | 100                                   |
| AL0510-122  | 1200                    | 40      | 16.9        | 0.252                | 0.95         | 95                                    |
| AL0510-152  | 1500                    | 40      | 21.6        | 0.252                | 0.90         | 90                                    |
| AL0510-182  | 1800                    | 40      | 24.0        | 0.252                | 0.85         | 85                                    |
| AL0510-202  | 2000                    | 40      | 30.2        | 0.252                | 1.9          | 80                                    |
| AL0510-222  | 2200                    | 40      | 34.7        | 0.252                | 0.80         | 80                                    |
| AL0510-272  | 2700                    | 40      | 40.0        | 0.252                | 0.75         | 75                                    |
| AL0510-302  | 3000                    | 40      | 59.5        | 0.252                | 0.70         | 62                                    |
| AL0510-332  | 3300                    | 40      | 59.5        | 0.252                | 0.70         | 62                                    |
| AL0510-392  | 3900                    | 40      | 66.0        | 0.252                | 0.65         | 59                                    |
| AL0510-402  | 4000                    | 40      | 74.0        | 0.252                | 0.60         | 55                                    |
| AL0510-472  | 4700                    | 40      | 74.0        | 0.252                | 0.60         | 55                                    |
| AL0510-562  | 5600                    | 30      | 80.0        | 0.252                | 0.50         | 40                                    |
| AL0510-682  | 6800                    | 30      | 85.0        | 0.252                | 0.45         | 35                                    |
| AL0510-762  | 7600                    | 30      | 95.0        | 0.252                | 0.40         | 30                                    |
| AL0510-822  | 8200                    | 30      | 95.0        | 0.252                | 0.40         | 30                                    |
| AL0510-103  | 10000                   | 25      | 105.0       | 0.0796               | 0.35         | 25                                    |
| AL0510-163  | 16000                   | 25      | 155.0       | 0.0796               | 0.30         | 25                                    |
| AL0510-223  | 22000                   | 20      | 315.0       | 0.0796               | 0.25         | 25                                    |

Products with other electrical characteristic can be provided upon customer's request. Please contact your local sales.



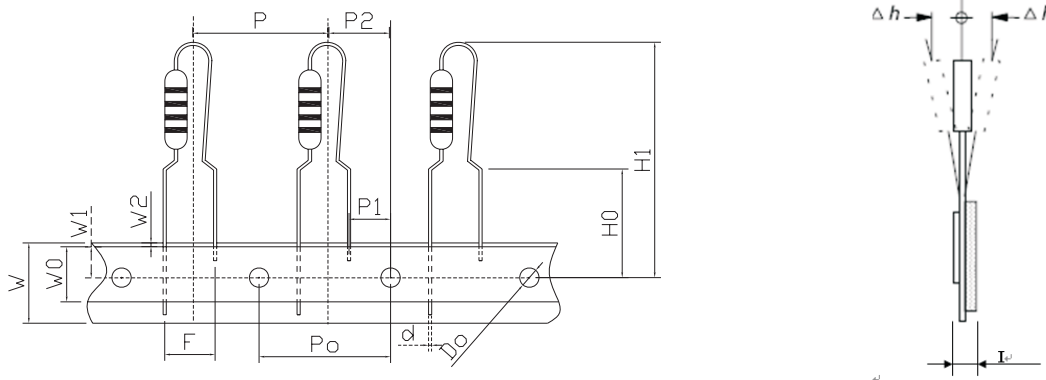
- PACKAGING STYLE
- TAPING DIMENSIONS



| Tape style     | L                                  | Z       | L1-L2   |
|----------------|------------------------------------|---------|---------|
| Tape width :26 | 26 ± 1.0                           | 0.8 Max | 1.0 Max |
| Tapewidth :52  | 52 <sup>+2.0</sup> <sub>-1.0</sub> | 1.2 Max |         |

- VERTICAL TAPING DIMENSIONS

Unit: mm



| CodeI | P    | P0   | P1   | P2   | d    | Δh   | W    | W0   | W1   | W2   | H0    | H1    | D0   | I   | F    |
|-------|------|------|------|------|------|------|------|------|------|------|-------|-------|------|-----|------|
| Dim.  | 12.7 | 12.7 | 3.85 | 6.35 | 0.6  | 0    | 18.5 | 12   | 9    | 1.5  | 15-20 | 32.25 | 4.0  | 1.4 | 5    |
| Tol.  | ±1.0 | ±0.2 | ±0.7 | ±0.4 | ±0.1 | ±1.0 | ±1.0 | ±1.0 | ±1.0 | ±1.5 | ±0.5  | Max   | ±0.2 | Max | ±0.8 |

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