

# アキシャルリードインダクタ

## AXIAL LEADED INDUCTORS

|                |   |
|----------------|---|
| OPERATING TEMP | -25~+105°C (製品自己発熱を含む)<br>(Including self-generated heat) |
|----------------|---|



### 特長 FEATURES

- ・自動挿入に対し極めて高い信頼性を有するインダクタ
- ・自動化高速ラインによる生産の為、量産性に優れかつ高品質
- ・アキシャルリードタイプその他、ラジアルターピング、単品加工品がありバリエーションが豊富
- ・Extremely reliable inductors that are ideal for automatic insertion.
- ・Highly efficient automated production processes can provide high quality inductors in large volumes.
- ・Wide selection of configurations including axial leaded, formed radial leads and bulk products to meet most manufacturing needs.

### 用途 APPLICATIONS

- ・VTR、CTV、オーディオ、通信機、その他電子機器全般
- ・Consumer electronics such as VTRs, TVs, audio equipment, mobile communications, and general electronic appliances.

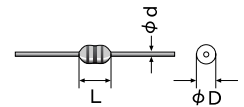
### 形名表記法 ORDERING CODE

|  |  |   |   |  |
|--|--|---|---|--|
| <b>1</b>   | <b>3</b>   | <b>4</b>  | <b>5</b>  | <b>6</b>                                       |
| <b>形式</b><br>LA アキシャルインダクタ   | <b>形状寸法(L×D)(mm以下)</b><br>02 3.4×2.3 (LAL/LAP)<br>3.6×2.4 (LAN)<br>03 7.0×2.7<br>04 9.8×4.0<br>05 14.0×5.5 | <b>リード加工形状(mm)</b><br>KB フォーミング単品(04タイプ)<br>KH フォーミング単品(03タイプ)<br>KR フォーミング単品(02タイプ)<br>NA ストレート単品<br>SK 縦形フォーミング<br>TA アキシャルつづらターピング26.0幅<br>TB アキシャルつづらターピング52.0幅<br>VA 縦形ラジアルターピングピッチ2.5<br>VB 縦形ラジアルターピングピッチ5.0<br>VD ラジアルターピング | <b>公称インダクタンス[μH]</b><br>例 ※R=小数点<br>1R5 1.5<br>120 12 | <b>インダクタンス許容差[%]</b><br>J ±5<br>K ±10<br>M ±20 |
| <b>2</b>   |  |   |   | <b>7</b>                                       |
| <b>製品区分</b><br>L△ 一般<br>N△ 高電流タイプ<br>P△ 一般(リード線径0.45φmm)<br>△=スペース |  |   |   | <b>当社管理記号</b><br>△△△△ 標準品<br>△=スペース            |



|   |   |  |  |  |
|---|---|--|--|--|
| <b>1</b>  | <b>3</b>  | <b>4</b>   | <b>5</b>   | <b>6</b>   |
| <b>Type</b><br>LA Axial inductor  | <b>Body size(L×D)(mm)</b><br>02 3.4×2.3 (LAL/LAP)<br>3.6×2.4 (LAN)<br>03 7.0×2.7<br>04 9.8×4.0<br>05 14.0×5.5 | <b>Lead configurations(mm)</b><br>KB Formed lead/bulk(04 type)<br>KH Formed lead/bulk(03 type)<br>KR Formed lead/bulk(02 type)<br>NA Axial lead/bulk<br>SK Formed lead(hair pin)/bulk(04 type)<br>TA Axial lead(26mm lead space)<br>/ammo pack(02/03 type)<br>TB Axial lead(52mm lead space)<br>/ammo pack(all types)<br>VA Formed lead(hair pin)<br>/ammo pack(02 type)<br>VB Formed lead(hair pin)<br>/ammo pack(03 type)<br>VD Formed lead/ammo pack(02 type) | <b>Nominal inductance[μH]</b><br>example ※R=decimal point<br>1R5 1.5<br>120 12 | <b>Inductance tolerance[%]</b><br>J ±5<br>K ±10<br>M ±20       |
| <b>2</b>  |   |  |  | <b>7</b>   |
| <b>Product Specification</b><br>L△ Standard type<br>N△ High current type<br>P△ Standard type<br>(lead diameter:0.45mm)<br>△=Blank space |   |  |  | <b>Internal code</b><br>△△△△ Standard product<br>△=Blank space |

# 外形寸法 EXTERNAL DIMENSIONS

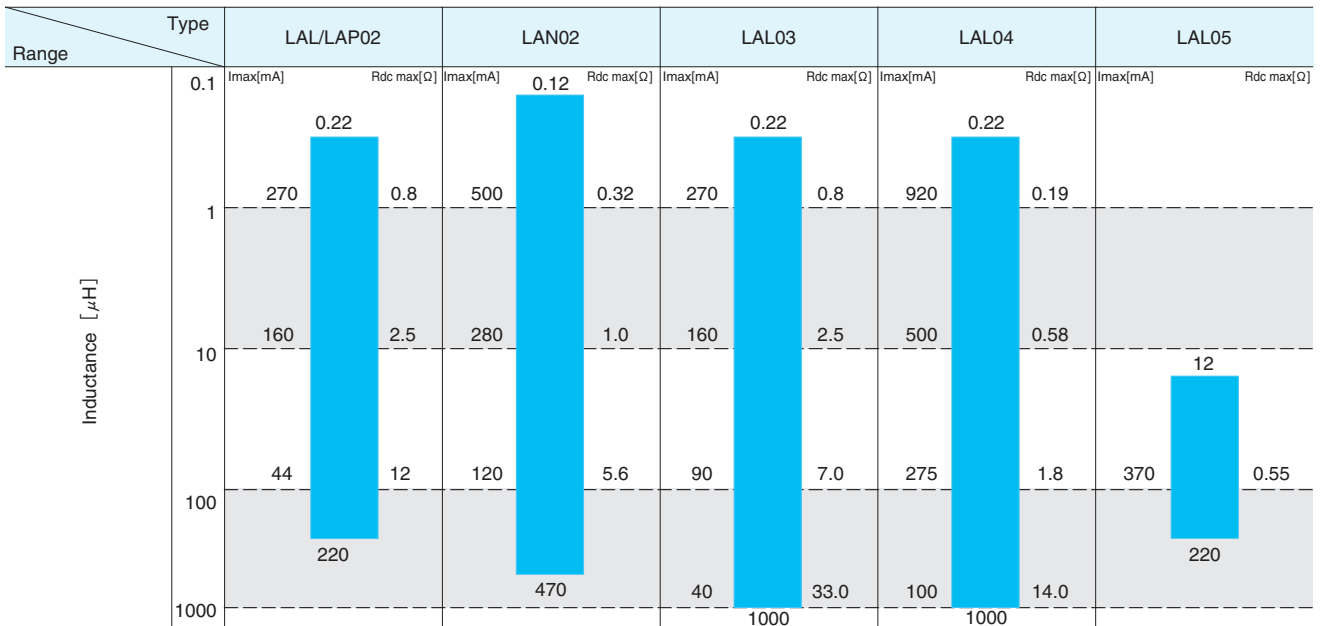


| Type  | Dimensions[mm](inch)  |   |                            | テーピング Taped   |              | 単品Bulk        |              |
|-------|-----------------------|---|----------------------------|---------------|--------------|---------------|--------------|
|       | L                     | φD  | φd                         | ストレートStraight | フォーミングFormed | ストレートStraight | フォーミングFormed |
| LAL02 | 3.4max<br>(0.134max)  | 2.3max<br>(0.091max)  | 0.5±0.05<br>(0.020±0.002)  | TB<br>        | VD VA<br>    | NA<br>        | —            |
| LAP02 | 3.4max<br>(0.134max)  | 2.3max<br>(0.091max)  | 0.45±0.05<br>(0.018±0.002) | TA<br>        | —            | —             | KR<br>       |
| LAN02 | 3.6max<br>(0.142max)  | 2.4max<br>(0.094max)  |                            | —             | —            | —             | —            |
| LAL03 | 7.0max<br>(0.276max)  | 2.6 <sup>+0.1</sup> <sub>-0.2</sub><br>(0.102 <sup>+0.004</sup> <sub>-0.008</sub> ) | ※0.5±0.05<br>(0.020±0.002) | TA<br>        | VB<br>       | NA<br>        | KH<br>       |
| LAL04 | 9.8max<br>(0.386max)  | 4.0max<br>(0.157max)  | 0.65±0.05<br>(0.026±0.002) | TB<br>        | —            | NA<br>        | SK KB<br>    |
| LAL05 | 14.0max<br>(0.551max) | 5.5max<br>(0.217max)  | 0.65±0.05<br>(0.026±0.002) | TB<br>        | —            | —             | —            |

※VB : 0.6±0.05  
(0.024±0.002)

Unit : mm (inch)

# 概略バリエーション AVAILABLE INDUCTANCE RANGE



| 代表値 Examples | Inductance | Imax [mA] | Rdcmax [Ω] | Imax [mA] | Rdcmax [Ω] | Imax [mA] | Rdcmax [Ω] | Imax [mA] | Rdcmax [Ω] | Imax [mA] | Rdcmax [Ω] |
|--------------|------------|-----------|------------|-----------|------------|-----------|------------|-----------|------------|-----------|------------|
| 1μH          | —          | 270       | 0.8        | 500       | 0.32       | 270       | 0.8        | 920       | 0.19       | —         | —          |
| 10μH         | —          | 160       | 2.5        | 280       | 1.0        | 160       | 2.5        | 500       | 0.58       | —         | —          |
| 100μH        | —          | 44        | 12         | 120       | 5.6        | 90        | 7.0        | 275       | 1.8        | 370       | 0.55       |
| 1000μH       | —          | —         | —          | —         | —          | 40        | 33.0       | 100       | 14.0       | —         | —          |

セレクトションガイド  
Selection Guide

アイテム一覧  
Part Numbers

特性図  
Electrical Characteristics

梱包  
Packaging

信頼性  
Reliability Data

使用上の注意  
Precautions



etc

LAL/LAP02

| 形名<br>Ordering code | 公称<br>インダクタンス<br>Inductance<br>[μH] | インダクタンス<br>許容差<br>Inductance<br>Tolerance | Q<br>(min.) | 測定<br>周波数<br>Measuring<br>frequency<br>(MHz) | 自己共振<br>周波数<br>Self-resonant<br>frequency<br>(MHz)<br>(min.) | 直流抵抗<br>DC<br>Resistance<br>[Ω]<br>(max.) | 定格電流<br>Rated<br>current<br>(mA)<br>(max.) |
|---------------------|-------------------------------------|---|-------------|--|--|---|--|
| LA□02○R22K          | 0.22                                | ±10%                                      | 35.0        | 25.2   | 450.0  | 0.40                                      | 400.0                                      |
| LA□02○R27K          | 0.27                                |   |             |  | 410.0  | 0.43                                      | 380.0                                      |
| LA□02○R33K          | 0.33                                |   |             |  | 360.0  | 0.48                                      | 370.0                                      |
| LA□02○R39K          | 0.39                                |   |             |  | 300.0  | 0.51                                      | 350.0                                      |
| LA□02○R47K          | 0.47                                |   |             |  | 230.0  | 0.56                                      | 330.0                                      |
| LA□02○R56K          | 0.56                                |   |             |  | 210.0  | 0.61                                      | 320.0                                      |
| LA□02○R68K          | 0.68                                |   |             |  | 190.0  | 0.67                                      | 310.0                                      |
| LA□02○R82K          | 0.82                                |   |             |  | 170.0  | 0.74                                      | 290.0                                      |
| LA□02○1R0K          | 1.0                                 |   |             |  | 150.0  | 0.80                                      | 270.0                                      |
| LA□02○1R2K          | 1.2                                 |   |             |  | 110.0  | 0.9                                       | 260.0                                      |
| LA□02○1R5K          | 1.5                                 |   | 80.0        | 1.0  | 250.0  |   |  |
| LA□02○1R8K          | 1.8                                 |   | 60.0        | 1.1  | 240.0  |   |  |
| LA□02○2R2K          | 2.2                                 |   | 45.0        | 1.2  | 230.0  |   |  |
| LA□02○2R7K          | 2.7                                 |   | 40.0        | 1.3  | 220.0  |   |  |
| LA□02○3R3K          | 3.3                                 |   | 38.0        | 1.4  | 210.0  |   |  |
| LA□02○3R9K          | 3.9                                 |   | 35.0        | 1.6  | 200.0  |   |  |
| LA□02○4R7K          | 4.7                                 |   | 32.0        | 1.7  | 190.0  |   |  |
| LA□02○5R6K          | 5.6                                 |   | 30.0        | 1.9  | 180.0  |   |  |
| LA□02○6R8K          | 6.8                                 |   | 28.0        | 2.0  | 175.0  |   |  |
| LA□02○8R2K          | 8.2                                 |   | 26.0        | 2.2  | 165.0  |   |  |
| LA□02○100K          | 10.0                                |   | 24.0        | 2.5  | 160.0  |   |  |
| LA□02○120K          | 12.0                                |   | 22.0        | 2.5  | 150.0  |   |  |
| LA□02○150K          | 15.0                                |   | 20.0        | 2.8  | 145.0  |   |  |
| LA□02○180K          | 18.0                                |   | 18.0        | 3.1  | 140.0  |   |  |
| LA□02○220K          | 22.0                                |   | 17.0        | 3.4  | 130.0  |   |  |
| LA□02○270K          | 27.0                                |   | 16.0        | 4.3  | 80.0   |   |  |
| LA□02○330K          | 33.0                                |   | 14.0        | 4.7  | 76.0   |   |  |
| LA□02○390K          | 39.0                                |   | 13.0        | 5.2  | 74.0   |   |  |
| LA□02○470K          | 47.0                                | 12.0                                      | 5.8         | 70.0   |  |   |  |
| LA□02○560K          | 56.0                                | 11.0                                      | 6.4         | 68.0   |  |   |  |
| LA□02○680K          | 68.0                                | 10.0                                      | 7.2         | 64.0   |  |   |  |
| LA□02○820K          | 82.0                                | 9.5                                       | 11.0        | 46.0   |  |   |  |
| LA□02○101K          | 100.0                               | 9.0                                       | 12.0        | 44.0   |  |   |  |
| LA□02○121K          | 120.0                               | 8.0                                       | 13.0        | 42.0   |  |   |  |
| LA□02○151K          | 150.0                               | 6.0                                       | 16.0        | 39.0   |  |   |  |
| LA□02○181K          | 180.0                               | 5.5                                       | 18.0        | 37.0   |  |   |  |
| LA□02○221K          | 220.0                               | 5.0                                       | 20.0        | 35.0   |  |   |  |

形名の□には製品区分記号(リード線径)が入ります。(L:標準0.5mm, P:0.45mm)

形名の○にはリード加工形状記号が入ります。

□ Please specify the Product Specification(lead diameter)code. (L:standard 0.5mm or P:0.45mm)

○ Please specify the Lead configuration code.

LAN02

| 形名<br>Ordering code | 公称<br>インダクタンス<br>Inductance<br>[μH] | インダクタンス<br>許容差<br>Inductance<br>Tolerance | Q<br>(min.) | 測定<br>周波数<br>Measuring<br>frequency<br>[MHz] | 自己共振<br>周波数<br>Self-resonant<br>frequency<br>[MHz]<br>(min.) | 直流抵抗<br>DC<br>Resistance<br>[Ω]<br>(max.) | 定格電流<br>Rated<br>current<br>[mA]<br>(max.) |
|---------------------|-------------------------------------|---|-------------|--|--|---|--|
| LAN02○R12K          | 0.12                                | ±10%                                      | 50.0        | 25.2   | 500.0  | 0.12                                      | 850.0                                      |
| LAN02○R15K          | 0.15                                |   |             |  | 500.0  | 0.14                                      | 800.0                                      |
| LAN02○R18K          | 0.18                                |   |             |  | 500.0  | 0.15                                      | 760.0                                      |
| LAN02○R22K          | 0.22                                |   |             |  | 500.0  | 0.16                                      | 730.0                                      |
| LAN02○R27K          | 0.27                                |   |             |  | 500.0  | 0.18                                      | 690.0                                      |
| LAN02○R33K          | 0.33                                |   |             |  | 480.0  | 0.19                                      | 660.0                                      |
| LAN02○R39K          | 0.39                                |   |             |  | 430.0  | 0.21                                      | 640.0                                      |
| LAN02○R47K          | 0.47                                |   |             |  | 380.0  | 0.23                                      | 610.0                                      |
| LAN02○R56K          | 0.56                                |   |             |  | 350.0  | 0.25                                      | 580.0                                      |
| LAN02○R68K          | 0.68                                |   |             |  | 310.0  | 0.27                                      | 550.0                                      |
| LAN02○R82K          | 0.82                                |   |             |  | 270.0  | 0.29                                      | 520.0                                      |
| LAN02○1R0J          | 1.0                                 |   |             |  | ±5 %   | 40.0                                      | 7.96                                       |
| LAN02○1R2J          | 1.2                                 | 210.0                                     | 0.35        | 480.0  |  |   |  |
| LAN02○1R5J          | 1.5                                 | 190.0                                     | 0.38        | 450.0  |  |   |  |
| LAN02○1R8J          | 1.8                                 | 140.0                                     | 0.42        | 430.0  |  |   |  |
| LAN02○2R2J          | 2.2                                 | 90.0                                      | 0.47        | 410.0  |  |   |  |
| LAN02○2R7J          | 2.7                                 | 70.0                                      | 0.52        | 390.0  |  |   |  |
| LAN02○3R3J          | 3.3                                 | 50.0                                      | 0.57        | 370.0  |  |   |  |
| LAN02○3R9J          | 3.9                                 | 35.0                                      | 0.63        | 360.0  |  |   |  |
| LAN02○4R7J          | 4.7                                 | 32.0                                      | 0.69        | 340.0  |  |   |  |
| LAN02○5R6J          | 5.6                                 | 30.0                                      | 0.75        | 320.0  |  |   |  |
| LAN02○6R8J          | 6.8                                 | 28.0                                      | 0.84        | 310.0  |  |   |  |
| LAN02○8R2J          | 8.2                                 | 26.0                                      | 0.92        | 290.0  |  |   |  |
| LAN02○100J          | 10.0                                | 24.0                                      | 1.0         | 280.0  |  |   |  |
| LAN02○120J          | 12.0                                | 22.0                                      | 1.0         | 280.0  |  |   |  |
| LAN02○150J          | 15.0                                | 20.0                                      | 1.2         | 265.0  |  |   |  |
| LAN02○180J          | 18.0                                | 18.0                                      | 1.3         | 250.0  |  |   |  |
| LAN02○220J          | 22.0                                | 17.0                                      | 1.5         | 235.0  |  |   |  |
| LAN02○270J          | 27.0                                | 15.0                                      | 1.7         | 220.0  |  |   |  |
| LAN02○330J          | 33.0                                | 14.0                                      | 2.2         | 180.0  |  |   |  |
| LAN02○390J          | 39.0                                | 13.0                                      | 2.4         | 170.0  |  |   |  |
| LAN02○470J          | 47.0                                | 12.0                                      | 2.8         | 160.0  |  |   |  |
| LAN02○560J          | 56.0                                | 10.0                                      | 4.1         | 140.0  |  |   |  |
| LAN02○680J          | 68.0                                | 9.2                                       | 4.5         | 130.0  |  |   |  |
| LAN02○820J          | 82.0                                | 8.8                                       | 5.0         | 125.0  |  |   |  |
| LAN02○101J          | 100.0                               | 8.0                                       | 5.6         | 120.0  |  |   |  |
| LAN02○121J          | 120.0                               | 50.0                                      | 0.796       | 6.6  | 9.2  | 90.0                                      |  |
| LAN02○151J          | 150.0                               |   |             | 5.8  | 10.5   | 85.0                                      |  |
| LAN02○181J          | 180.0                               |   |             | 5.4  | 11.5   | 80.0                                      |  |
| LAN02○221J          | 220.0                               |   |             | 4.8  | 13.0   | 75.0                                      |  |
| LAN02○271J          | 270.0                               |   |             | 3.6  | 16.0   | 70.0                                      |  |
| LAN02○331J          | 330.0                               |   |             | 3.4  | 18.0   | 66.0                                      |  |
| LAN02○391J          | 390.0                               |   |             | 3.2  | 20.0   | 63.0                                      |  |
| LAN02○471J          | 470.0                               |   |             | 3.0  | 22.0   | 60.0                                      |  |

形名の○にはリード加工形状記号が入ります。  
○ Please specify the Lead configuration code.

LAL03

| 形名<br>Ordering code | 公称<br>インダクタンス<br>Inductance<br>[μH] | インダクタンス<br>許容差<br>Inductance<br>Tolerance | Q<br>(min.) | 測定<br>周波数<br>Measuring<br>frequency<br>[MHz] | 自己共振<br>周波数<br>Self-resonant<br>frequency<br>[MHz]<br>(min.) | 直流抵抗<br>DC<br>Resistance<br>[Ω]<br>(max.) | 定格電流<br>Rated<br>current<br>[mA]<br>(max.) |       |       |       |
|---------------------|-------------------------------------|---|-------------|--|--|---|--|-------|-------|-------|
| LAL03○R22M          | 0.22                                | ±20%                                      | 35.0        | 25.2   | 450.0  | 0.40                                      | 400.0                                      |       |       |       |
| LAL03○R27M          | 0.27                                |   |             |  | 410.0  | 0.43                                      | 380.0                                      |       |       |       |
| LAL03○R33M          | 0.33                                |   |             |  | 360.0  | 0.48                                      | 370.0                                      |       |       |       |
| LAL03○R39M          | 0.39                                |   |             |  | 300.0  | 0.51                                      | 350.0                                      |       |       |       |
| LAL03○R47M          | 0.47                                |   |             |  | 230.0  | 0.56                                      | 330.0                                      |       |       |       |
| LAL03○R56M          | 0.56                                |   |             |  | 210.0  | 0.61                                      | 320.0                                      |       |       |       |
| LAL03○R68M          | 0.68                                |   | ±10%        | 40.0   | 7.96   | 190.0                                     | 0.67                                       | 310.0 |       |       |
| LAL03○R82M          | 0.82                                |   |             |  |  | 170.0                                     | 0.74                                       | 290.0 |       |       |
| LAL03○1R0M          | 1.0                                 |   |             |  |  | 150.0                                     | 0.80                                       | 270.0 |       |       |
| LAL03○1R2M          | 1.2                                 |   |             |  |  | 144.0                                     | 0.90                                       | 260.0 |       |       |
| LAL03○1R5M          | 1.5                                 |   |             |  |  | 131.0                                     | 1.0  | 250.0 |       |       |
| LAL03○1R8M          | 1.8                                 |   |             |  |  | 121.0                                     | 1.1  | 240.0 |       |       |
| LAL03○2R2M          | 2.2                                 |   |             | ±10%   | 50.0   | 2.52                                      | 110.0                                      | 1.2   | 230.0 |       |
| LAL03○2R7M          | 2.7                                 |   |             |  |  |   | 100.0                                      | 1.3   | 220.0 |       |
| LAL03○3R3K          | 3.3                                 | 94.0                                      |             |  |  |   | 1.4  | 210.0 |       |       |
| LAL03○3R9K          | 3.9                                 | 65.0                                      |             |  |  |   | 1.6  | 200.0 |       |       |
| LAL03○4R7K          | 4.7                                 | 56.0                                      |             |  |  |   | 1.7  | 190.0 |       |       |
| LAL03○5R6K          | 5.6                                 | 48.0                                      |             |  |  |   | 1.9  | 180.0 |       |       |
| LAL03○6R8K          | 6.8                                 | 37.0                                      |             |  |  |   | 2.0  | 175.0 |       |       |
| LAL03○8R2K          | 8.2                                 | 25.0                                      |             |  |  |   | 2.2  | 165.0 |       |       |
| LAL03○100K          | 10.0                                | 21.0                                      | 2.5         |  |  |   | 160.0                                      |       |       |       |
| LAL03○120K          | 12.0                                | 0.796                                     | 0.796       |  |  |   | 0.796                                      | 19.0  | 2.5   | 150.0 |
| LAL03○150K          | 15.0                                |   |             |  |  |   |  | 17.0  | 2.8   | 145.0 |
| LAL03○180K          | 18.0                                |   |             |  |  |   |  | 13.0  | 3.1   | 140.0 |
| LAL03○220K          | 22.0                                |   |             |  | 9.6  | 3.4                                       |  | 130.0 |       |       |
| LAL03○270K          | 27.0                                |   |             |  | 7.2  | 3.8                                       |  | 125.0 |       |       |
| LAL03○330K          | 33.0                                |   |             |  | 6.3  | 4.1                                       |  | 120.0 |       |       |
| LAL03○390K          | 39.0                                |   |             |  | 6.3  | 4.5                                       |  | 115.0 |       |       |
| LAL03○470K          | 47.0                                |   |             |  | 6.3  | 4.9                                       |  | 110.0 |       |       |
| LAL03○560K          | 56.0                                |   |             |  | 6.2  | 5.3                                       |  | 105.0 |       |       |
| LAL03○680K          | 68.0                                |   |             |  | 5.7  | 5.8                                       |  | 100.0 |       |       |
| LAL03○820K          | 82.0                                |   |             |  | 5.3  | 6.3                                       |  | 95.0  |       |       |
| LAL03○101K          | 100.0                               |   |             |  | 4.8  | 7.0                                       |  | 90.0  |       |       |
| LAL03○121K          | 120.0                               | 3.8                                       | 13.0        |  | 90.0   |   |  |       |       |       |
| LAL03○151K          | 150.0                               | 3.5                                       | 15.0        |  | 85.0   |   |  |       |       |       |
| LAL03○181K          | 180.0                               | 3.3                                       | 16.0        |  | 80.0   |   |  |       |       |       |
| LAL03○221K          | 220.0                               | 3.0                                       | 17.0        | 75.0   |  |   |  |       |       |       |
| LAL03○271K          | 270.0                               | 2.8                                       | 19.0        | 65.0   |  |   |  |       |       |       |
| LAL03○331K          | 330.0                               | 2.6                                       | 20.0        | 60.0   |  |   |  |       |       |       |
| LAL03○391K          | 390.0                               | 2.4                                       | 22.0        | 55.0   |  |   |  |       |       |       |
| LAL03○471K          | 470.0                               | 2.25                                      | 24.0        | 55.0   |  |   |  |       |       |       |
| LAL03○561K          | 560.0                               | 2.10                                      | 26.0        | 50.0   |  |   |  |       |       |       |
| LAL03○681K          | 680.0                               | 1.95                                      | 28.0        | 45.0   |  |   |  |       |       |       |
| LAL03○821K          | 820.0                               | 1.85                                      | 30.0        | 40.0   |  |   |  |       |       |       |
| LAL03○102K          | 1000.0                              | 1.40                                      | 33.0        | 40.0   |  |   |  |       |       |       |

形名の○にはリード加工形状記号が入ります。

○ Please specify the Lead configuration code.

LAL04

| 形名<br>Ordering code | 公称<br>インダクタンス<br>Inductance<br>[μH] | インダクタンス<br>許容差<br>Inductance<br>Tolerance | Q<br>(min.) | 測定<br>周波数<br>Measuring<br>frequency<br>[MHz] | 自己共振<br>周波数<br>Self-resonant<br>frequency<br>[MHz]<br>(min.) | 直流抵抗<br>DC<br>Resistance<br>[Ω]<br>(max.) | 定格電流<br>Rated<br>current<br>[mA]<br>(max.) |
|---------------------|-------------------------------------|---|-------------|--|--|---|--|
| LAL04○R22M          | 0.22                                | ±20%                                      | 45.0        | 25.2   | 300.0  | 0.10                                      | 1400.0                                     |
| LAL04○R27M          | 0.27                                |   |             |  | 270.0  | 0.11                                      | 1320.0                                     |
| LAL04○R33M          | 0.33                                |   |             |  | 250.0  | 0.12                                      | 1280.0                                     |
| LAL04○R39M          | 0.39                                |   |             |  | 230.0  | 0.13                                      | 1200.0                                     |
| LAL04○R47M          | 0.47                                |   |             |  | 220.0  | 0.14                                      | 1150.0                                     |
| LAL04○R56M          | 0.56                                |   |             |  | 200.0  | 0.15                                      | 1100.0                                     |
| LAL04○R68M          | 0.68                                |   |             |  | 190.0  | 0.16                                      | 1030.0                                     |
| LAL04○R82M          | 0.82                                |   |             |  | 172.0  | 0.17                                      | 980.0                                      |
| LAL04○1R0M          | 1.0                                 |   |             |  | 157.0  | 0.19                                      | 920.0                                      |
| LAL04○1R2M          | 1.2                                 |   |             |  | 144.0  | 0.21                                      | 880.0                                      |
| LAL04○1R5M          | 1.5                                 | 50.0                                      | 7.96        | 131.0  | 0.23   | 830.0                                     |  |
| LAL04○1R8M          | 1.8                                 | 55.0                                      | 121.0       | 0.25   | 790.0  |   |  |
| LAL04○2R2M          | 2.2                                 | 60.0                                      | 110.0       | 0.28   | 750.0  |   |  |
| LAL04○2R7M          | 2.7                                 | 65.0                                      | 100.0       | 0.30   | 720.0  |   |  |
| LAL04○3R3K          | 3.3                                 | 70.0                                      | 94.0        | 0.34   | 670.0  |   |  |
| LAL04○3R9K          | 3.9                                 | 75.0                                      | 65.0        | 0.37   | 640.0  |   |  |
| LAL04○4R7K          | 4.7                                 | 80.0                                      | 56.0        | 0.39   | 620.0  |   |  |
| LAL04○5R6K          | 5.6                                 | 85.0                                      | 48.0        | 0.43   | 590.0  |   |  |
| LAL04○6R8K          | 6.8                                 | 90.0                                      | 37.0        | 0.48   | 550.0  |   |  |
| LAL04○8R2K          | 8.2                                 | 95.0                                      | 25.0        | 0.52   | 530.0  |   |  |
| LAL04○100K          | 10.0                                | 100.0                                     | 21.0        | 0.58   | 500.0  |   |  |
| LAL04○120K          | 12.0                                | ±10%                                      | 50.0        | 2.52   | 19.0   | 0.63                                      | 480.0                                      |
| LAL04○150K          | 15.0                                |   |             |  | 17.0   | 0.72                                      | 460.0                                      |
| LAL04○180K          | 18.0                                |   |             |  | 13.0   | 0.77                                      | 430.0                                      |
| LAL04○220K          | 22.0                                |   |             |  | 9.6  | 0.84                                      | 410.0                                      |
| LAL04○270K          | 27.0                                |   |             |  | 7.2  | 0.94                                      | 390.0                                      |
| LAL04○330K          | 33.0                                |   |             |  | 6.3  | 1.03                                      | 370.0                                      |
| LAL04○390K          | 39.0                                |   |             |  | 5.0  | 1.12                                      | 350.0                                      |
| LAL04○470K          | 47.0                                |   |             |  | 4.5  | 1.22                                      | 340.0                                      |
| LAL04○560K          | 56.0                                |   |             |  | 4.0  | 1.34                                      | 320.0                                      |
| LAL04○680K          | 68.0                                |   |             |  | 3.5  | 1.47                                      | 305.0                                      |
| LAL04○820K          | 82.0                                | 3.0                                       | 1.62        | 290.0  |  |   |  |
| LAL04○101K          | 100.0                               | 2.5                                       | 1.80        | 275.0  |  |   |  |
| LAL04○121K          | 120.0                               | 2.0                                       | 3.70        | 185.0  |  |   |  |
| LAL04○151K          | 150.0                               | 1.5                                       | 4.20        | 175.0  |  |   |  |
| LAL04○181K          | 180.0                               | 1.0                                       | 4.60        | 165.0  |  |   |  |
| LAL04○221K          | 220.0                               | 0.75                                      | 5.10        | 155.0  |  |   |  |
| LAL04○271K          | 270.0                               | 0.6                                       | 5.80        | 145.0  |  |   |  |
| LAL04○331K          | 330.0                               | 0.5                                       | 6.40        | 137.0  |  |   |  |
| LAL04○391K          | 390.0                               | 0.4                                       | 7.00        | 133.0  |  |   |  |
| LAL04○471K          | 470.0                               | 0.3                                       | 7.70        | 126.0  |  |   |  |
| LAL04○561K          | 560.0                               | 0.25                                      | 8.50        | 120.0  |  |   |  |
| LAL04○681K          | 680.0                               | 0.2                                       | 9.40        | 113.0  |  |   |  |
| LAL04○821K          | 820.0                               | 0.15                                      | 10.50       | 105.0  |  |   |  |
| LAL04○102K          | 1000.0                              | 0.1                                       | 14.00       | 100.0  |  |   |  |

形名の○にはリード加工形状記号が入ります。  
○ Please specify the Lead configuration code.

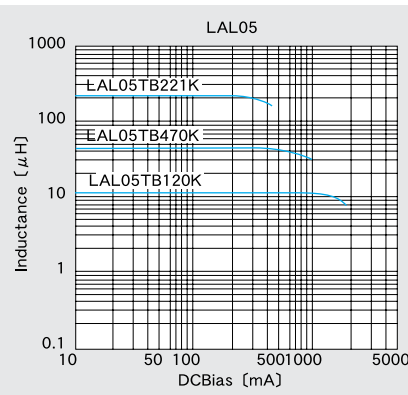
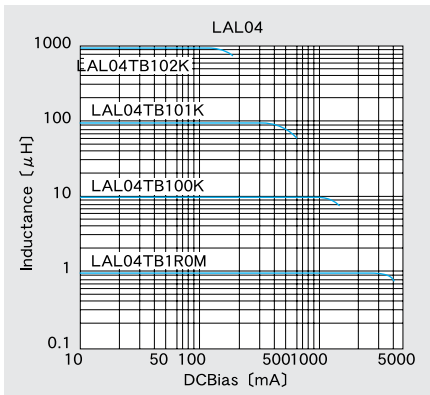
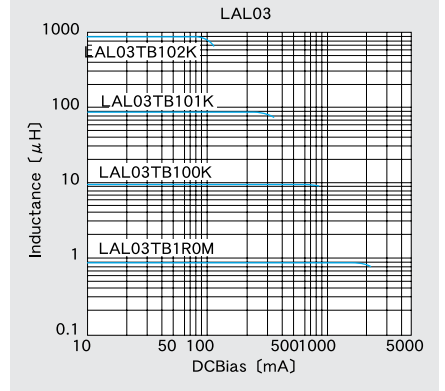
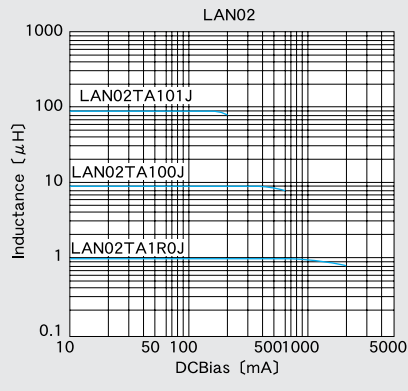
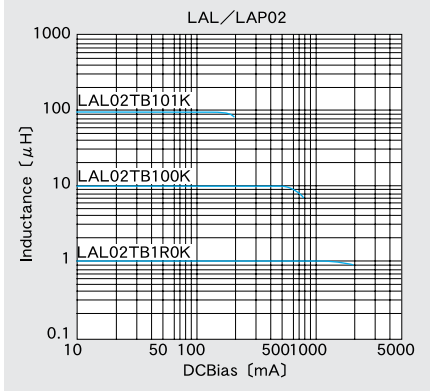
LAL05

| 形名<br>Ordering code | 公称<br>インダクタンス<br>Inductance<br>[ $\mu$ H] | インダクタンス<br>許容差<br>Inductance<br>Tolerance | Q<br>(min.) | 測定<br>周波数<br>Measuring<br>frequency<br>[MHz] | 自己共振<br>周波数<br>Self-resonant<br>frequency<br>[MHz]<br>(min.) | 直流抵抗<br>DC<br>Resistance<br>[ $\Omega$ ]<br>(max.) | 定格電流<br>Rated<br>current<br>[A]<br>(max.) |      |      |
|---------------------|---|---|-------------|--|--|--|---|------|------|
| LAL05○120K          | 12.0                                      | ±10%                                      | 30.0        | 2.52   | 11.0   | 0.15   | 1.05                                      |      |      |
| LAL05○150K          | 15.0                                      |   |             |  | 10.0   | 0.16   | 1.00                                      |      |      |
| LAL05○180K          | 18.0                                      |   |             |  | 9.0  | 0.18   | 0.82                                      |      |      |
| LAL05○220K          | 22.0                                      |   |             |  | 8.0  | 0.19   | 0.80                                      |      |      |
| LAL05○270K          | 27.0                                      |   |             |  | 7.0  | 0.21   | 0.70                                      |      |      |
| LAL05○330K          | 33.0                                      |   |             |  | 6.0  | 0.27   | 0.60                                      |      |      |
| LAL05○390K          | 39.0                                      |   |             |  | 5.5  | 0.30   | 0.54                                      |      |      |
| LAL05○470K          | 47.0                                      |   |             |  | 5.0  | 0.32   | 0.52                                      |      |      |
| LAL05○560K          | 56.0                                      |   |             |  | 20.0   | 0.796  | 4.5                                       | 0.36 | 0.49 |
| LAL05○680K          | 68.0                                      |   |             |  |  |  | 4.0                                       | 0.40 | 0.45 |
| LAL05○820K          | 82.0                                      |   | 3.7         | 0.43   |  |  | 0.40                                      |      |      |
| LAL05○101K          | 100.0                                     |   | 3.3         | 0.55   |  |  | 0.37                                      |      |      |
| LAL05○121K          | 120.0                                     |   | 3.0         | 1.10   |  |  | 0.31                                      |      |      |
| LAL05○151K          | 150.0                                     |   | 2.6         | 1.20   |  |  | 0.27                                      |      |      |
| LAL05○181K          | 180.0                                     |   | 2.3         | 1.30   |  |  | 0.25                                      |      |      |
| LAL05○221K          | 220.0                                     |   | 2.0         | 1.40   |  |  | 0.22                                      |      |      |

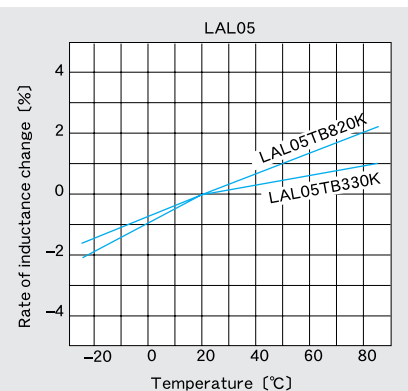
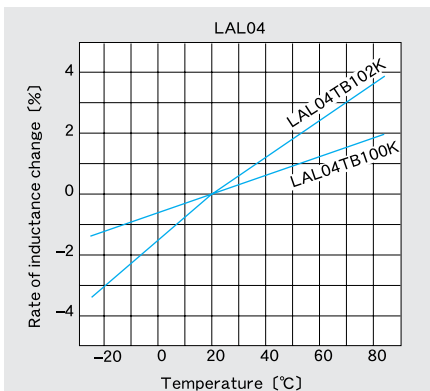
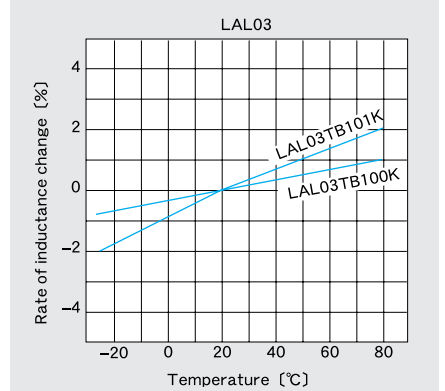
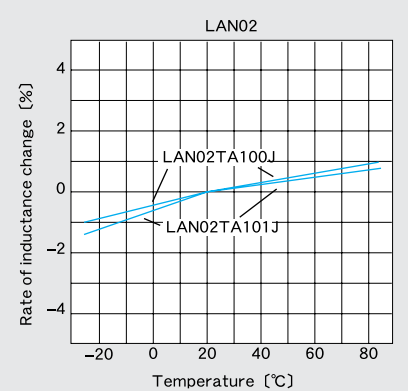
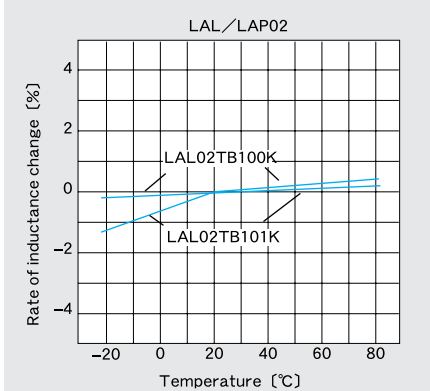
形名の○にはリード加工形状記号が入ります。

○ Please specify the Lead configuration code.

直流重量特性例 DC Bias characteristics(Measured by HP4262A)

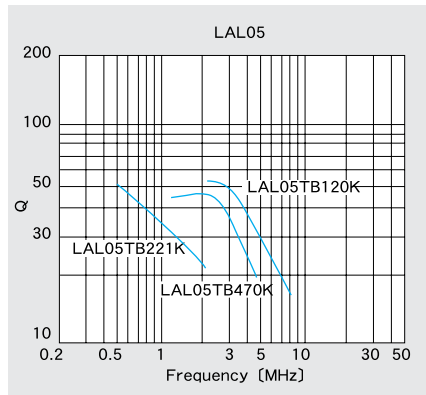
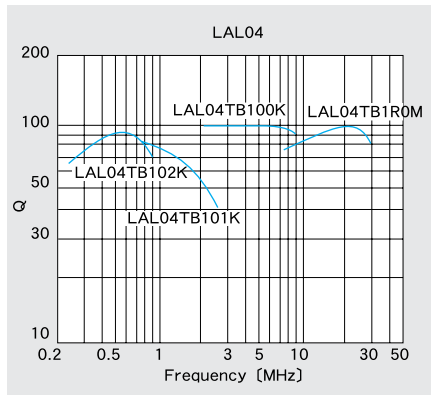
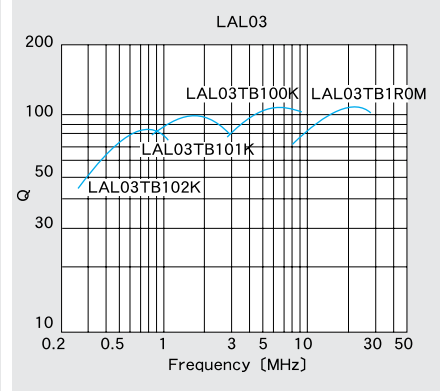
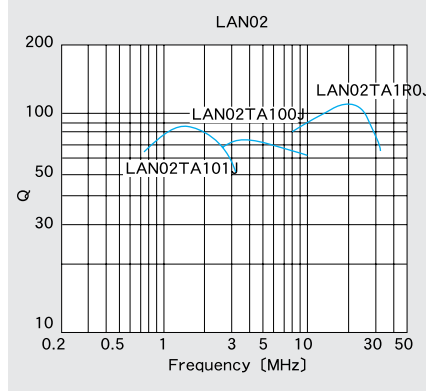
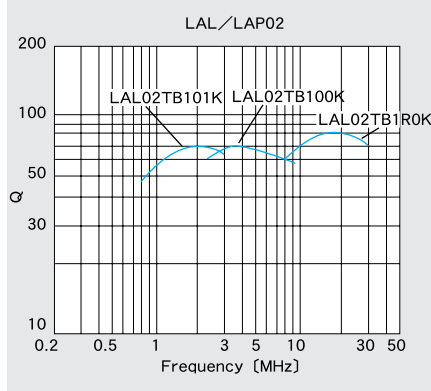


温度特性例 Temperature characteristics(Measured by HP4342A)





Q-周波数特性例 Q-Characteristics(Measured by HP4342A)



標準数量 Standard quantity

①アキシアルリードの横テーピング Taping for Straight Leads

| Type  | リード加工記号<br>Lead Configuration code | 標準数量(pcs.)<br>Standard quantity |
|-------|------------------------------------|---------------------------------|
| LAL02 | TB                                 | 2,000                           |
| LAP02 | TA                                 | 2,000                           |
| LAN02 | TA                                 | 2,000                           |
| LAL03 | TA・TB                              | 2,000                           |
| LAL04 | TB                                 | 2,500                           |
| LAL05 | TB                                 | 2,000                           |

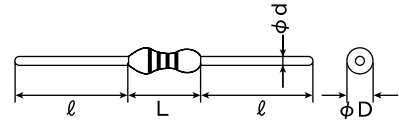
②アキシアルリードの縦テーピング Taping for Formed Leads

| Type  | リード加工記号<br>Lead Configuration code | 標準数量(pcs.)<br>Standard quantity |
|-------|------------------------------------|---------------------------------|
| LAL02 | VD・VA                              | 2,000                           |
| LAL03 | VB                                 | 2,000                           |

③バルク(袋づめ) Bulk

| Type  | リード加工記号<br>Lead Configuration code | 標準数量(pcs.)<br>Standard quantity |
|-------|------------------------------------|---------------------------------|
| LAL02 | NA                                 | 500                             |
| LAP02 | KR                                 | 2,000                           |
| LAN02 | KR                                 | 500                             |
| LAL03 | NA・KH                              | 500                             |
| LAL04 | NA・KB・SK                           | 500                             |

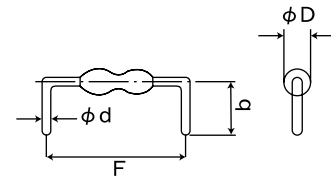
NA形状



| Type  | 寸法<br>Dimensions  |                      |                            |                         | 最小挿入ピッチ<br>Minimum insertion pitch |
|-------|---|----------------------|----------------------------|-------------------------|------------------------------------|
|       | $\phi D$  | L                    | $\phi d$                   | $l$                     |                                    |
| LAL02 | 2.3max<br>(0.091max)  | 3.4max<br>(0.134max) | 0.50±0.05<br>(0.020±0.002) | 24±2.0<br>(0.945±0.079) | 5.0<br>(0.197)                     |
| LAL03 | 2.6 <sup>+0.1</sup> <sub>-0.2</sub><br>(0.102 <sup>+0.004</sup> <sub>-0.008</sub> ) | 7.0max<br>(0.276max) | 0.50±0.05<br>(0.020±0.002) | 22±2.0<br>(0.866±0.079) | 10.0<br>(0.394)                    |
| LAL04 | 4.0max<br>(0.157max)  | 9.8max<br>(0.386max) | 0.65±0.05<br>(0.026±0.002) | 20±2.0<br>(0.787±0.079) | 12.5<br>(0.492)                    |

Unit : mm(inch)

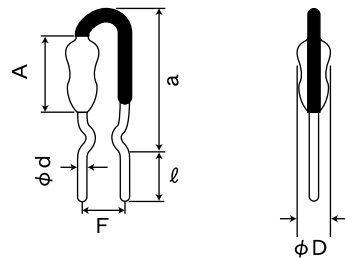
KR/KH/KB形状



| Type  | リード加工<br>形状記号<br>Lead configuration<br>code | 寸法<br>Dimensions  |                            |                            |                          |
|-------|---|---|----------------------------|----------------------------|--------------------------|
|       |   | $\phi D$  | F                          | $\phi d$                   | b                        |
| LAP02 | KR  | 2.3max<br>(0.091max)  | 5.0±0.5<br>(0.197±0.020)   | 0.45±0.05<br>(0.018±0.002) | 7.0±1.0<br>(0.276±0.039) |
| LAN02 | KR  | 2.4max<br>(0.094max)  | 5.0±0.5<br>(0.197±0.020)   | 0.45±0.05<br>(0.018±0.002) | 7.0±1.0<br>(0.276±0.039) |
| LAL03 | KH  | 2.6 <sup>+0.1</sup> <sub>-0.2</sub><br>(0.102 <sup>+0.004</sup> <sub>-0.008</sub> ) | 10.0±0.50<br>(0.394±0.020) | 0.50±0.05<br>(0.020±0.002) | 6.5±0.5<br>(0.256±0.020) |
| LAL04 | KB  | 4.0max<br>(0.157max)  | 12.5±1.02<br>(0.492±0.039) | 0.65±0.05<br>(0.026±0.002) | 6.0±0.5<br>(0.236±0.020) |

Unit : mm(inch)

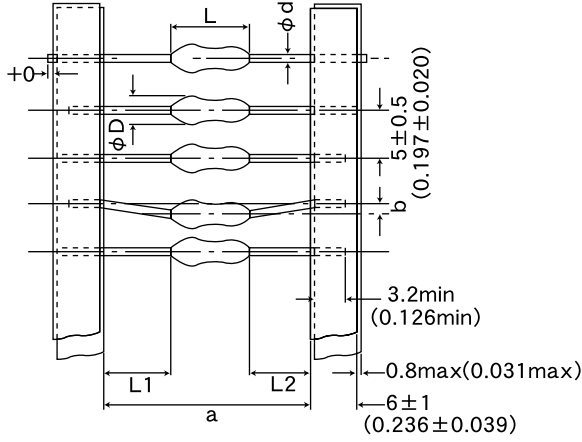
SK形状



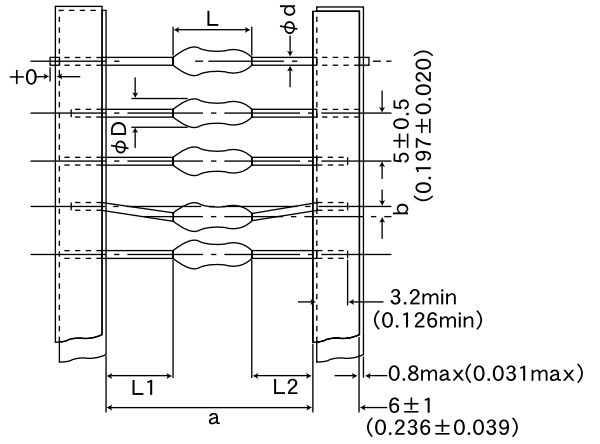
| Type  | 寸法<br>Dimensions     |                       |                      |                          |                            |                          |
|-------|----------------------|-----------------------|----------------------|--------------------------|----------------------------|--------------------------|
|       | A                    | a                     | $\phi D$             | F                        | $\phi d$                   | $l$                      |
| LAL04 | 9.8max<br>(0.386max) | 14.0max<br>(0.551max) | 4.0max<br>(0.157max) | 5.0±1.5<br>(0.197±0.059) | 0.65±0.05<br>(0.026±0.002) | 6.0±1.0<br>(0.236±0.039) |

Unit : mm(inch)

TA (a : 26mm lead space)形状  
(1.02 inch)



TB (a : 52mm lead space)形状  
(2.05 inches)



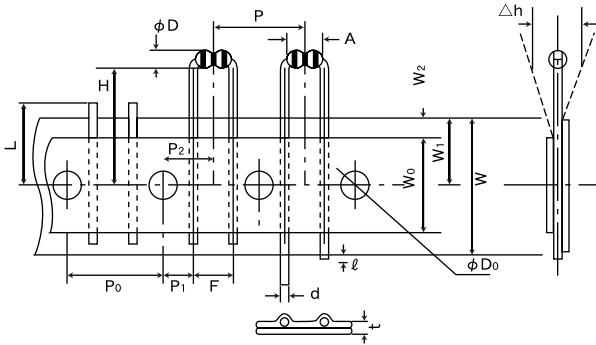
| Type  | 寸法<br>Dimensions  |                      |   |                      |                      |                            | 最小挿入<br>ピッチ<br>Minimum<br>insertion<br>pitch |
|-------|---|----------------------|---|----------------------|----------------------|----------------------------|--|
|       | $\phi D$  | L                    | a   | b                    | $ L_1 - L_2 $        | $\phi d$                   |  |
| LAP02 | 2.3max<br>(0.091max)  | 3.4max<br>(0.134max) | $26^{+0.5}_{-0}$<br>(1.02 <sup>+0.020</sup> <sub>-0</sub> )     | 0.8max<br>(0.031max) | 0.5max<br>(0.020max) | 0.45±0.05<br>(0.018±0.002) | 5.0<br>(0.197)                               |
| LAN02 | 2.4max<br>(0.094max)  | 3.6max<br>(0.142max) | $26^{+0.5}_{-0}$<br>(1.02 <sup>+0.020</sup> <sub>-0</sub> )     | 0.8max<br>(0.031max) | 0.5max<br>(0.020max) | 0.45±0.05<br>(0.018±0.002) | 5.0<br>(0.197)                               |
| LAL03 | $2.6^{+0.1}_{-0.2}$<br>(0.102 <sup>+0.004</sup> <sub>-0.008</sub> ) | 7.0max<br>(0.276max) | $26^{+1}_{-0.5}$<br>(1.02 <sup>+0.039</sup> <sub>-0.020</sub> ) | 0.8max<br>(0.031max) | 1.0max<br>(0.039max) | 40.5±0.05<br>(0.020±0.002) | 10.0<br>(0.394)                              |

Unit : mm(inch)

| Type  | 寸法<br>Dimensions  |                       |   |                      |                      |                            | 最小挿入<br>ピッチ<br>Minimum<br>insertion<br>pitch |
|-------|---|-----------------------|---|----------------------|----------------------|----------------------------|--|
|       | $\phi D$  | L                     | a   | b                    | $ L_1 - L_2 $        | $\phi d$                   |  |
| LAL02 | 2.3max<br>(0.091max)  | 13.4max<br>(0.531max) | $52^{+2}_{-1}$<br>(2.05 <sup>+0.079</sup> <sub>-0.039</sub> ) | 1.2max<br>(0.047max) | 1.0max<br>(0.039max) | 0.5±0.05<br>(0.020±0.002)  | 15.0<br>(0.591)                              |
| LAL03 | $2.6^{+0.1}_{-0.2}$<br>(0.102 <sup>+0.004</sup> <sub>-0.008</sub> ) | 17.0max<br>(0.670max) | $52^{+2}_{-1}$<br>(2.05 <sup>+0.079</sup> <sub>-0.039</sub> ) | 1.2max<br>(0.047max) | 1.0max<br>(0.039max) | 0.5±0.05<br>(0.020±0.002)  | 10.0<br>(0.394)                              |
| LAL04 | 4.0max<br>(0.157max)  | 19.8max<br>(0.780max) | $52^{+2}_{-1}$<br>(2.05 <sup>+0.079</sup> <sub>-0.039</sub> ) | 1.2max<br>(0.047max) | 1.0max<br>(0.039max) | 0.65±0.05<br>(0.026±0.002) | 12.5<br>(0.492)                              |
| LAL05 | 5.5max<br>(0.217max)  | 14.0max<br>(0.551max) | $52^{+2}_{-1}$<br>(2.05 <sup>+0.079</sup> <sub>-0.039</sub> ) | 1.2max<br>(0.047max) | 1.0max<br>(0.039max) | 0.65±0.05<br>(0.026±0.002) | 17.5<br>(0.689)                              |

Unit : mm(inch)

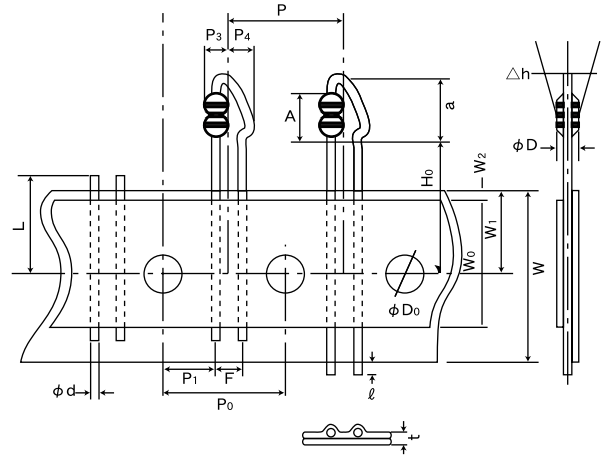
VD形状



| Type  | 記号<br>Symbol | 寸法<br>Dimensions                      | 記号<br>Symbol                         | 寸法<br>Dimensions                                    |
|-------|--------------|---------------------------------------|--------------------------------------|---|
| LAL02 | A            | 3.9max<br>(0.154max)                  | W                                    | $18.0^{+1.0}_{-0.5}$<br>$(0.709^{+0.039}_{-0.020})$ |
|       | $\phi D$     | 2.3max<br>(0.091max)                  | $W_0$                                | 12.5min<br>(0.492min)                               |
|       | H            | $19.5 \pm 0.5$<br>(0.768 $\pm$ 0.020) | $W_1$                                | $9.0^{+0.75}_{-0.5}$<br>$(0.354^{+0.030}_{-0.020})$ |
|       | P            | $12.7 \pm 1.0$<br>(0.500 $\pm$ 0.039) | $W_2$                                | 3.0max<br>(0.118max)                                |
|       | $P_0$        | $12.7 \pm 0.3$<br>(0.500 $\pm$ 0.012) | $\ell$                               | 2.0max<br>(0.079max)                                |
|       | $P_1$        | $3.85 \pm 0.7$<br>(0.152 $\pm$ 0.028) | $\phi D_0$                           | 0.4.0 $\pm$ 0.30<br>(0.157 $\pm$ 0.012)             |
|       | $P_2$        | $6.35 \pm 0.5$<br>(0.250 $\pm$ 0.020) |                                      |   |
|       | F            | $5.08 \pm 0.5$<br>(0.200 $\pm$ 0.020) | $\phi d$                             | 0.50 $\pm$ 0.05<br>(0.020 $\pm$ 0.002)              |
|       | $\Delta h$   | $5.00 \pm 1.0$<br>(0 $\pm$ 0.039)     | L                                    | 11.0max<br>(0.433max)                               |
| —     | —            | t                                     | 0.5 $\pm$ 0.2<br>(0.020 $\pm$ 0.008) |   |

Unit : mm(inch)

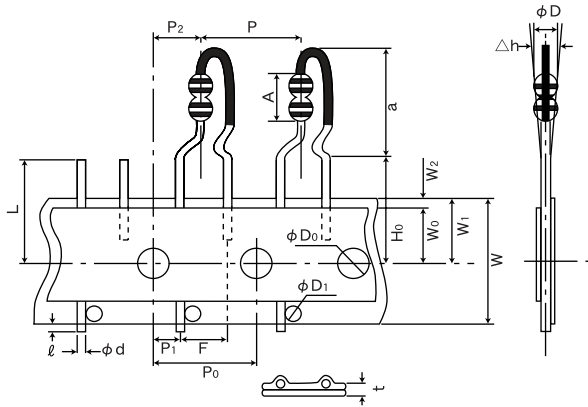
VA形状



| Type  | 記号<br>Symbol | 寸法<br>Dimensions                       | 記号<br>Symbol | 寸法<br>Dimensions                                    |
|-------|--------------|--|--------------|---|
| LAL02 | A            | 3.9max<br>(0.154max)                   | W            | $18.0^{+1.0}_{-0.5}$<br>$(0.709^{+0.039}_{-0.020})$ |
|       | a            | 6.5max<br>(0.256max)                   | $W_0$        | 12.5min<br>(0.492min)                               |
|       | $\phi D$     | 2.3max<br>(0.091max)                   | $W_1$        | $9.0^{+0.75}_{-0.5}$<br>$(0.354^{+0.030}_{-0.020})$ |
|       | $H_0$        | $16.0 \pm 1.00$<br>(0.630 $\pm$ 0.039) | $W_2$        | 3.0max<br>(0.118max)                                |
|       | P            | $12.7 \pm 1.00$<br>(0.500 $\pm$ 0.039) | $\ell$       | 2.0max<br>(0.079max)                                |
|       | $P_0$        | $12.7 \pm 0.30$<br>(0.500 $\pm$ 0.012) | $\phi D_0$   | 4.0 $\pm$ 0.3<br>(0.157 $\pm$ 0.012)                |
|       | $P_1$        | $5.1 \pm 0.7$<br>(0.201 $\pm$ 0.028)   | $\phi d$     | 0.50 $\pm$ 0.05<br>(0.020 $\pm$ 0.002)              |
|       | $P_2$        | $6.35 \pm 0.50$<br>(0.250 $\pm$ 0.020) |              |   |
|       | $P_3$        | 3.0max<br>(0.118max)                   | L            | 11.0max<br>(0.433max)                               |
|       | $P_4$        | 3.0max<br>(0.118max)                   |              |   |
|       | F            | $2.5 \pm 0.5$<br>(0.098 $\pm$ 0.020)   | t            | 0.5 $\pm$ 0.2<br>(0.020 $\pm$ 0.008)                |
|       | $\Delta h$   | 0.0 $\pm$ 1.0<br>(0 $\pm$ 0.039)       | —            | —   |

Unit : mm(inch)

VB形状



| Type  | 記号<br>Symbol         | 寸法<br>Dimensions           | 記号<br>Symbol             | 寸法<br>Dimensions   |
|-------|----------------------|----------------------------|--------------------------|--|
| LAL03 | A                    | 7.0max<br>(0.276max)       | W                        | 18.0 <sup>+1.0</sup> <sub>.0</sub><br>(0.709 <sup>+0.039</sup> <sub>-0.020</sub> ) |
|       | a                    | 12.5max<br>(0.492max)      | W <sub>0</sub>           | 12.5min<br>(0.492min)  |
|       | φD                   | 2.7max<br>(0.106max)       | W <sub>1</sub>           | 9.0 <sup>+0.75</sup> <sub>.0</sub><br>(0.354 <sup>+0.030</sup> <sub>-0.020</sub> ) |
|       | H <sub>0</sub>       | 16.0±0.50<br>(0.630±0.020) | W <sub>2</sub>           | 3.0max<br>(0.118max)   |
|       | P                    | 12.7±1.00<br>(0.500±0.039) | ℓ                        | 1.0max<br>(0.039max)   |
|       | P <sub>0</sub>       | 12.7±0.30<br>(0.500±0.012) | φD <sub>0</sub>          | 4.0±0.2<br>(0.157±0.008)   |
|       | P <sub>1</sub>       | 3.85±0.70<br>(0.152±0.028) | φD <sub>1</sub>          | 3.5max<br>(0.138max)   |
|       | P <sub>2</sub>       | 6.35±1.00<br>(0.250±0.039) | φd                       | 0.60±0.05<br>(0.024±0.002)   |
|       | F                    | 5.0±1.0<br>(0.197±0.039)   | L                        | 11.0max<br>(0.433max)  |
| △h    | 5.0±2.0<br>(0±0.079) | t                          | 0.7±0.2<br>(0.028±0.008) |  |

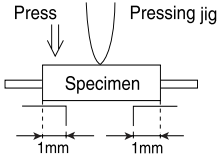
Unit : mm(inch)

| Item                           | Specified Value                |           |           |                                 |                                |                                |               |                                   | Test Method and Remarks  |
|--------------------------------|--------------------------------|-----------|-----------|---------------------------------|--------------------------------|--------------------------------|---------------|-----------------------------------|--|
|                                | LA02 Type/<br>LA03 Type        | LA04 Type | LA05 Type | LHL□□□/<br>LHF15BB/<br>LHFP□□BB | FBA/FBR                        | LAV35                          | FL05□<br>Type | FL06BT<br>Type                    |  |
| 1. Operating temperature Range | -25~+105°C                     |           |           |                                 | -25~+85°C                      | -25~+105°C                     |               |                                   | LA・FL :<br>Including self-generated heat<br><br>LHL・LHF・LHFP :<br>Including self-generated heat<br>[LHL□□□, LHF15BB]   |
| 2. Storage temperature Range   | -40~+85°C                      |           |           |                                 |                                |                                |               |                                   |  |
| 3. Rated current               | Within the specified tolerance |           |           |                                 |                                |                                |               |                                   | LA :<br>The maximum DC value having inductance within 10% and temperature increase within 20°C by the application of DC bias.<br><br>LHL・LHF・LHFP・LAV35 :<br>The maximum DC value having inductance decrease within 10% and temperature increase within the following specified temperature by the application of DC bias.<br>規定温度：20°C(LHL06, LAV35)<br>: 25°C(LHL08, LHL10, LHL13)<br>: 30°C(LHLC06, LHLZ06, LHL16, LHF15BB, LHFP□□BB)<br><br>FB :<br>No disconnection or appearance abnormality by continuous current application for 30 min. Chage after the application shall be within ±20% of the initial value.This is not guaranteed for electrical characteristics during current application.<br><br>FL :<br>The maximum DC value having temperature rise within specified value. |
| 4. Impedance                   |                                |           |           |                                 | Within the specified tolerance |                                |               | Refer to individual specification | FB :<br>Measuring equipment : Impedance analyzer (HP4191A) or its equivalent<br>Measuring frequency : Specified frequency<br><br>FL06BT :<br>Measuring equipment : 4291A (HP) or its equivalent<br>Measuring frequency : Specified frequency   |
| 5. Inductance                  | Within the specified tolerance |           |           |                                 |                                | Within the specified tolerance |               |                                   | LA :<br>Measuring equipment : LCR meter(HP4285A + HP42851A or its equivalent)<br>Measuring frequency : Specified frequency<br>LHL・LHF・LHFP :<br>Measuring equipment : Q meter(HP4285A+HP42851A or its equivalent)<br>LCR meter( HP4262A) or its equivalent(at 1KHz)<br>Measuring frequency : Specified frequency<br><br>LAV35 :<br>Measuring equipment : Q meter(HP4285A+HP42851A or its equivalent)<br>Measuring frequency : Specified frequency<br><br>FL05R□ :<br>Measuring equipment : HP4262A or its equivalent.<br>Measuring frequency : 1KHz  |

| Item                         | Specified Value                     |           |           |                                 |         |                                |               |                | Test Method and Remarks   |      |                 |   |    |   |                                     |   |                           |   |                                     |   |    |
|------------------------------|-------------------------------------|-----------|-----------|---------------------------------|---------|--------------------------------|---------------|----------------|---|------|-----------------|---|----|---|-------------------------------------|---|---------------------------|---|-------------------------------------|---|----|
|                              | LA02 Type/<br>LA03 Type             | LA04 Type | LA05 Type | LHL□□□/<br>LHF15BB/<br>LHFP□□BB | FBA/FBR | LAV35                          | FL05□<br>Type | FL06BT<br>Type |   |      |                 |   |    |   |                                     |   |                           |   |                                     |   |    |
| 6.Q                          | Within the specified tolerance      |           |           |                                 |         | Within the specified tolerance |               |                | LA :<br>Measuring equipment : LCR meter(HP4285A+HP42851A or its equivalent)<br>Measuring frequency : Specified frequency<br><br>LHL · LHF · LHFP · LAV35 :<br>Measuring equipment : Q meter(HP4285A+HP42851A or its equivalent)<br>Q meter(HP4342A) or its equivalent<br>Measuring frequency : Specified frequency  |      |                 |   |    |   |                                     |   |                           |   |                                     |   |    |
| 7.DC Resistance              | Within the specified tolerance      |           |           |                                 |         |                                |               |                | LA :<br>Measuring equipment : low ohmmeter (A&D AD5812 or its equivalent)<br><br>LHL · LHF · LHFP · FB · LAV35 · FL :<br>Measuring equipment : DC ohmmeter  |      |                 |   |    |   |                                     |   |                           |   |                                     |   |    |
| 8.Self resonance frequency   | Within the specified tolerance      |           |           |                                 |         | Within the specified tolerance |               |                | LA :<br>Measuring equipment : Network analyzer(Anritsu MS620J or its equivalent)<br><br>LHL · LHF · LHFP · LAV35 :<br>Measuring equipment : (HP4191A, 4192A) its equivalent   |      |                 |   |    |   |                                     |   |                           |   |                                     |   |    |
| 9.Temperature characteristic | $\Delta L/L$ : Within±5%            |           |           | $\Delta L/L$ :<br>Within±7%     |         | $\Delta L/L$ :<br>Within±5%    |               |                | LA :<br>Change of maximum inductance deviation in step 1to5 <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>step</th> <th>Temperature(°C)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>20</td> </tr> <tr> <td>2</td> <td>-25 (Minimum operating temperature)</td> </tr> <tr> <td>3</td> <td>20 (Standard temperature)</td> </tr> <tr> <td>4</td> <td>+85 (Maximum operating temperature)</td> </tr> <tr> <td>5</td> <td>20</td> </tr> </tbody> </table><br>LHL · LHF · LHFP · LAV35 :<br>[LHL□□□, LHF15BB, LAV35, LHFP□□BB]<br>Change of maximum inductance deviation in step 1to5<br>Temperature at step 1 : 20°C<br>Temperature at step 2 : Minimum operating temperature<br>Temperature at step 3 : 20°C (Standard temperature)<br>Temperature at step 4 : Maximum operating temperature<br>Temperature at step 5 : 20°C | step | Temperature(°C) | 1 | 20 | 2 | -25 (Minimum operating temperature) | 3 | 20 (Standard temperature) | 4 | +85 (Maximum operating temperature) | 5 | 20 |
| step                         | Temperature(°C)                     |           |           |                                 |         |                                |               |                |   |      |                 |   |    |   |                                     |   |                           |   |                                     |   |    |
| 1                            | 20                                  |           |           |                                 |         |                                |               |                |   |      |                 |   |    |   |                                     |   |                           |   |                                     |   |    |
| 2                            | -25 (Minimum operating temperature) |           |           |                                 |         |                                |               |                |   |      |                 |   |    |   |                                     |   |                           |   |                                     |   |    |
| 3                            | 20 (Standard temperature)           |           |           |                                 |         |                                |               |                |   |      |                 |   |    |   |                                     |   |                           |   |                                     |   |    |
| 4                            | +85 (Maximum operating temperature) |           |           |                                 |         |                                |               |                |   |      |                 |   |    |   |                                     |   |                           |   |                                     |   |    |
| 5                            | 20                                  |           |           |                                 |         |                                |               |                |   |      |                 |   |    |   |                                     |   |                           |   |                                     |   |    |

| Item  | Specified Value                                |                            |           |   |  |       |               |                | Test Method and Remarks   |   |                   |                            |                      |   |           |                      |                      |      |   |                      |                            |                      |     |      |                      |   |     |                      |    |     |
|---|--|----------------------------|-----------|---|--|-------|---------------|----------------|---|---|-------------------|----------------------------|----------------------|---|-----------|----------------------|----------------------|------|---|----------------------|----------------------------|----------------------|-----|------|----------------------|---|-----|----------------------|----|-----|
|   | LA02 Type/<br>LA03 Type                        | LA04 Type                  | LA05 Type | LHL□□□/<br>LHF15BB/<br>LHFP□□BB                   | FBA/FBR  | LAV35 | FL05□<br>Type | FL06BT<br>Type |   |   |                   |                            |                      |   |           |                      |                      |      |   |                      |                            |                      |     |      |                      |   |     |                      |    |     |
| 10. Terminal strength :<br>tensile force                      | No abnormality such as cut lead, or looseness. |                            |           | No abnormality such as cut lead, or looseness.    | No abnormality such as cut lead, or looseness. |       |               |                | <p>LA :</p> <p>Apply the stated tensile force progressively in the direction to draw terminal.</p> <table border="1"> <tr> <th>force(N)</th> <th>duration(S)</th> </tr> <tr> <td>25</td> <td>5</td> </tr> </table> <p>LHL · LHF · LAV · LHFP :</p> <p>Apply the stated tensile force progressively in the direction to draw terminal.</p> <table border="1"> <tr> <th>Nominal wire diameter tensile <math>\phi d</math>(mm)</th> <th>force (N)</th> <th>duration(S)</th> </tr> <tr> <td>0.3 &lt; <math>\phi d</math> ≤ 0.5</td> <td>5</td> <td rowspan="3">30±5</td> </tr> <tr> <td>0.5 &lt; <math>\phi d</math> ≤ 0.8</td> <td>10</td> </tr> <tr> <td>0.8 &lt; <math>\phi d</math> ≤ 1.2</td> <td>25</td> </tr> </table> <p>FBA :</p> <p>本体を固定し、端子方向に20±1Nの引張力を10±1秒間加える。</p> <p>FL05R□ :</p> <p>Fix the component in the direction to draw terminal, and gradually apply the tensile force of 4.9 N.</p>  | force(N)                                    | duration(S)       | 25                         | 5                    | Nominal wire diameter tensile $\phi d$ (mm) | force (N) | duration(S)          | 0.3 < $\phi d$ ≤ 0.5 | 5    | 30±5  | 0.5 < $\phi d$ ≤ 0.8 | 10                         | 0.8 < $\phi d$ ≤ 1.2 | 25  |      |                      |   |     |                      |    |     |
| force(N)  | duration(S)                                    |                            |           |   |  |       |               |                |   |   |                   |                            |                      |   |           |                      |                      |      |   |                      |                            |                      |     |      |                      |   |     |                      |    |     |
| 25  | 5  |                            |           |   |  |       |               |                |   |   |                   |                            |                      |   |           |                      |                      |      |   |                      |                            |                      |     |      |                      |   |     |                      |    |     |
| Nominal wire diameter tensile $\phi d$ (mm)                   | force (N)                                      | duration(S)                |           |   |  |       |               |                |   |   |                   |                            |                      |   |           |                      |                      |      |   |                      |                            |                      |     |      |                      |   |     |                      |    |     |
| 0.3 < $\phi d$ ≤ 0.5  | 5  | 30±5                       |           |   |  |       |               |                |   |   |                   |                            |                      |   |           |                      |                      |      |   |                      |                            |                      |     |      |                      |   |     |                      |    |     |
| 0.5 < $\phi d$ ≤ 0.8  | 10   |                            |           |   |  |       |               |                |   |   |                   |                            |                      |   |           |                      |                      |      |   |                      |                            |                      |     |      |                      |   |     |                      |    |     |
| 0.8 < $\phi d$ ≤ 1.2  | 25   |                            |           |   |  |       |               |                |   |   |                   |                            |                      |   |           |                      |                      |      |   |                      |                            |                      |     |      |                      |   |     |                      |    |     |
| 11. Over current  |  |                            |           | There shall be no scorch or short of wire.        |  |       |               |                | <p>LHL · LHF · LHFP :</p> <p>Measuring current : Rated current×2</p> <p>Duration : 5min.</p> <p>Number of measuring : one time</p>  |   |                   |                            |                      |   |           |                      |                      |      |   |                      |                            |                      |     |      |                      |   |     |                      |    |     |
| 12. Terminal strength :<br>bending                            | No abnormality such as cut lead, or looseness. |                            |           |   |  |       |               |                | <p>LA :</p> <p>Suspend a mass at the end the terminal, incline the body though angel of 90 and return it to initial position. This operation is done over a period of 2-3 sec. Then second bend in the opposite direction shall be made.</p> <p>Number of bends : Two times.</p> <table border="1"> <tr> <th>Nominal wire diameter tensile <math>\phi d</math>(mm)</th> <th>Bending force (N)</th> <th>Mass reference weight (kg)</th> </tr> <tr> <td>0.3 &lt; <math>\phi d</math> ≤ 0.5</td> <td>2.5</td> <td>0.25</td> </tr> <tr> <td>0.5 &lt; <math>\phi d</math> ≤ 0.8</td> <td>5</td> <td>0.50</td> </tr> </table> <p>LH · FB · LAV :</p> <p>Suspend a mass at the end the terminal, incline the body though angel of 90 and return it to initial position. This operation is done over a period of 2-3 sec. Then second bend in the opposite direction shall be made.</p> <p>Number of bends : Two times.</p> <table border="1"> <tr> <th>Nominal wire diameter tensile <math>\phi d</math>(mm)</th> <th>Bending force (N)</th> <th>Mass reference weight (kg)</th> </tr> <tr> <td>0.3 &lt; <math>\phi d</math> ≤ 0.5</td> <td>2.5</td> <td>0.25</td> </tr> <tr> <td>0.5 &lt; <math>\phi d</math> ≤ 0.8</td> <td>5</td> <td>0.5</td> </tr> <tr> <td>0.8 &lt; <math>\phi d</math> ≤ 1.2</td> <td>10</td> <td>1.0</td> </tr> </table> | Nominal wire diameter tensile $\phi d$ (mm) | Bending force (N) | Mass reference weight (kg) | 0.3 < $\phi d$ ≤ 0.5 | 2.5   | 0.25      | 0.5 < $\phi d$ ≤ 0.8 | 5                    | 0.50 | Nominal wire diameter tensile $\phi d$ (mm) | Bending force (N)    | Mass reference weight (kg) | 0.3 < $\phi d$ ≤ 0.5 | 2.5 | 0.25 | 0.5 < $\phi d$ ≤ 0.8 | 5 | 0.5 | 0.8 < $\phi d$ ≤ 1.2 | 10 | 1.0 |
| Nominal wire diameter tensile $\phi d$ (mm)                   | Bending force (N)                              | Mass reference weight (kg) |           |   |  |       |               |                |   |   |                   |                            |                      |   |           |                      |                      |      |   |                      |                            |                      |     |      |                      |   |     |                      |    |     |
| 0.3 < $\phi d$ ≤ 0.5  | 2.5  | 0.25                       |           |   |  |       |               |                |   |   |                   |                            |                      |   |           |                      |                      |      |   |                      |                            |                      |     |      |                      |   |     |                      |    |     |
| 0.5 < $\phi d$ ≤ 0.8  | 5  | 0.50                       |           |   |  |       |               |                |   |   |                   |                            |                      |   |           |                      |                      |      |   |                      |                            |                      |     |      |                      |   |     |                      |    |     |
| Nominal wire diameter tensile $\phi d$ (mm)                   | Bending force (N)                              | Mass reference weight (kg) |           |   |  |       |               |                |   |   |                   |                            |                      |   |           |                      |                      |      |   |                      |                            |                      |     |      |                      |   |     |                      |    |     |
| 0.3 < $\phi d$ ≤ 0.5  | 2.5  | 0.25                       |           |   |  |       |               |                |   |   |                   |                            |                      |   |           |                      |                      |      |   |                      |                            |                      |     |      |                      |   |     |                      |    |     |
| 0.5 < $\phi d$ ≤ 0.8  | 5  | 0.5                        |           |   |  |       |               |                |   |   |                   |                            |                      |   |           |                      |                      |      |   |                      |                            |                      |     |      |                      |   |     |                      |    |     |
| 0.8 < $\phi d$ ≤ 1.2  | 10   | 1.0                        |           |   |  |       |               |                |   |   |                   |                            |                      |   |           |                      |                      |      |   |                      |                            |                      |     |      |                      |   |     |                      |    |     |
| 13. Insulation resistance :<br>between the terminals and body |  |                            |           | 100M $\Omega$ min.                                |  |       |               |                | <p>LHL · LHF :</p> <p>Applied voltage : 500 VDC</p> <p>Duration : 60 sec.</p>   |   |                   |                            |                      |   |           |                      |                      |      |   |                      |                            |                      |     |      |                      |   |     |                      |    |     |
| 14. Insulation resistance :<br>between terminals and core     |  |                            |           | 1M $\Omega$ min.<br>(Other than material code MA) |  |       |               |                | <p>FBA · FBR :</p> <p>Applied voltage : 100 VDC</p> <p>Duration : 60±5 sec.</p>   |   |                   |                            |                      |   |           |                      |                      |      |   |                      |                            |                      |     |      |                      |   |     |                      |    |     |
| 15. Withstanding :<br>between the terminals and body          |  |                            |           | No abnormality such as insulation damage          |  |       |               |                | <p>[LHL□□□, LHF15BB]</p> <p>Accoding to JIS C5102. 7. 1. 3 (C)</p> <p>Metal global method</p> <p>Applied voltage : 500 VDC</p> <p>Duration : 60 sec.</p>  |   |                   |                            |                      |   |           |                      |                      |      |   |                      |                            |                      |     |      |                      |   |     |                      |    |     |



| Item                        | Specified Value                   |   |                                   |  |  |                                   |               |                | Test Method and Remarks   |
|-----------------------------|-----------------------------------|---|-----------------------------------|--|--|-----------------------------------|---------------|----------------|---|
|                             | LA02 Type/<br>LA03 Type           | LA04 Type                                   | LA05 Type                         | LHL□□□/<br>LHF15BB/<br>LHFP□□BB  | FBA/FBR  | LAV35                             | FL05□<br>Type | FL06BT<br>Type |   |
| 16.DC bias characteristic   | ΔL/L : Within -10%                |   |                                   |  |  | ΔL/L :<br>-10%<br>Within          |               |                | LA · LAV35 :<br>Measure inductance with application of rated current using LCR meter to compare it with the initial value.  |
| 17.Body strength            | No abnormality as damage.         |   |                                   |  | No significant damage such as cracks on body.                            | No abnormality as damage.         |               |                | LA02 · LAV35 :<br>Applied force : 30N<br>Duration : 10 sec.<br>Speed : Shall attain to specified force in 2 sec.<br><br>LA03 · LA04 · LA05 :<br>Applied force : 50N<br>Duration : 10 sec.<br>Speed : Shall attain to specified force in 2 sec.<br><br>FB :<br>Applied force : 50±3N<br>Duration : 30±1 sec.<br><br>  |
| 18.Resisitance to vibration | ΔL/L :<br>Within±5%<br>Q : 30min. | ΔL/L :<br>Within±5%<br>ΔQ/Q :<br>Within±10% | ΔL/L :<br>Within±5%<br>Q : 15min. | Appearance :<br>No<br>abnormality<br>ΔL/L :<br>Within±5%<br>Q change :<br>Within±30% | Appearance :<br>No<br>abnormality<br>Impedance<br>change :<br>Within±20% | ΔL/L :<br>Within±5%<br>Q : 30min. |               |                | LA :<br>Accoding to JIS C5102 8. 2<br>Vibration type : A<br>Directions : 2 hrs each in X, Y and Z directions total : 6hrs.<br>Frequency range : 10 to 55 to 10Hz(1min.)<br>Amplitude : 1.5mm<br>Mounting method : Soldering onto printed board.<br>Recovery : At least 1hr of recovery under the standard condition after the test, followed by the measurement within 2hrs.<br><br>LHL · LHF · LHFP · FB · LAV :<br>Accoding to JIS C0040<br>Vibration type : A<br>Directions : 2 hrs each in X, Y and Z directions total : 6hrs.<br>Frequency range : 10 to 55 to 10Hz(1min.)<br>Amplitude : 1.5mm (But don't exceed acceleration 196m/s (two power)<br>Mounting method : Soldering onto printed board. |

| Item                    | Specified Value  |           |                      |                                 |   |  |               |                | Test Method and Remarks   |
|-------------------------|--|-----------|----------------------|---------------------------------|---|--|---------------|----------------|---|
|                         | LA02 Type/<br>LA03 Type                                      | LA04 Type | LA05 Type            | LHL□□□/<br>LHF15BB/<br>LHFP□□BB | FBA/FBR   | LAV35                                    | FL05□<br>Type | FL06BT<br>Type |   |
| 19. Resistance to shock | No significant abnormality in appearance                     |           |                      |                                 |   | No significant abnormality in appearance |               |                | LA・LAV35 :<br>Drop test<br>Impact material : concrete or vinyl tile<br>Height : 1m<br>Total number of drops : 10 times  |
| 20. Solderability       | At least 75% of terminal electrode is covered by new solder. |           | At least 75% of lead | At least 90% of lead            | At least 75% of lead circu, ference is covered by new solder. |  |               |                | LA :<br>Solder temperature : 230±5°C<br>Duration : 2±0.5 sec.<br><br>LHL・LHF・LHFP :<br>Solder temperature : 235±5°C<br>Duration : 2±0.5 sec.<br>Immersion depth : Up to 1.5mm from bottom of kinked part.<br>[LHL06, LHLC06, LHLZ06]<br>: Up to 1.5mm from bottom of case.<br>[LHL08, LHL10, LHL13, LHL16]<br>: Up to 1.5mm from bottom of base.<br>[LHF15BB, LHFP□□BB]<br><br>FB :<br>Solder temperature : 230±5°C<br>Duration : 3±1 sec.<br>Immersion depth : Up to 1.5mm from terminal root.<br><br>LAV35 :<br>Solder temperature : 230±5°C<br>Duration : 2±0.5 sec.<br><br>FL05R□ :<br>Solder temperature : 230±5°C<br>Duration : 2±0.5 sec.<br>Immersion depth : Up to 2~2.5mm from terminal root.<br><br>FL06BT :<br>Solder temperature : 230±5°C<br>Duration : 3±1 sec.<br>Immersion depth : Up to 0.5~1.0mm from terminal root. |

| Item                             | Specified Value                          |           |                                    |  |  |                                   |                                   |  | Test Method and Remarks  |
|----------------------------------|--|-----------|------------------------------------|--|--|-----------------------------------|-----------------------------------|--|--|
|                                  | LA02 Type/<br>LA03 Type                  | LA04 Type | LA05 Type                          | LHL□□□□/<br>LHF15BB/<br>LHFP□□BB   | FBA/FBR  | LAV35                             | FL05□<br>Type                     | FL06BT<br>Type   |  |
| 21. Resistance to soldering heat | No significant abnormality in appearance |           | △L/L :<br>Within ±5%<br>Q : 15min. | No significant abnormality in appearance<br>Inductance change :<br>Within±5%<br>Q change :<br>Within±30% | No significant abnormality in appearance<br>Impedance change :<br>Within±20% | △L/L :<br>Within±5%<br>Q : 30min. | Refer to individual specification | No significant abnormality in appearance<br>Impedance change :<br>Within±20% | <p>LA :</p> <p>Solder temperature : 260±5°C(LA02)<br/>270±5°C(LA03 · LA04 · LA05)</p> <p>Duration : 5±0.5 sec. One time</p> <p>Immersion conditions : Inserted into substrate with t = 1.6mm</p> <p>Recovery : At least 1hr of recovery under the standard condition after the test, followed by the measurement within 2hrs.</p> <p>LHL · LHF · LHFP :</p> <p>Solder bath method</p> <p>Solder temperature : 260±5°C</p> <p>Duration : 10±1 sec.</p> <ul style="list-style-type: none"> <li>: Up to 1.5mm from bottom of kinked part.<br/>[LHL06, LHLC06, LHLZ06]</li> <li>: Up to 1.5mm from bottom of case.<br/>[LHL08, LHL10, LHL13, LHL16]</li> <li>: Up to 1.5mm from bottom of base.<br/>[LHF15BB, LHFP□□BB]</li> </ul> <p>Manual soldering</p> <p>Solder temperature : 350±10°C(At the tip of soldering iron)</p> <p>Duration : 5±1 sec.</p> <ul style="list-style-type: none"> <li>: Up to 1.5mm from bottom of kinked part.<br/>[LHL06, LHLC06, LHLZ06]</li> <li>: Up to 1.5mm from bottom of case.<br/>[LHL08, LHL10, LHL13, LHL16]</li> <li>: Up to 1.5mm from bottom of base.<br/>[LHF15BB, LHFP□□BB]</li> </ul> <p>Caution : No excessive pressing shall be applied to terminal</p> <p>Recovery : 4 to 24hrs of recovery under the standard condition after the test.</p> <p>FB :</p> <p>Solder bath method</p> <p>Condition 1</p> <p>Solder temperature : 260±5°C</p> <p>Duration : 10±1 sec.</p> <p>Immersion depth : Up to 1.5mm from terminal root.</p> <p>Condition 2</p> <p>Solder temperature : 350±5°C</p> <p>Duration : 3±1 sec.</p> <p>Immersion depth : Up to 1.5mm from terminal root.</p> <p>Recovery : 3hrs of recovery under the standard condition after the test.</p> <p>LAV35 :</p> <p>Solder temperature : 260±5°C</p> <p>Duration : 5±0.5 sec.</p> <p>Immersion depth : Up to 2.0 to 2.5mm from bottom of kinked part.</p> <p>Recovery : 4 to 24hrs of recovery under the standard condition after the test.</p> <p>FL :</p> <p>Solder condition : 260±5°C 10±1 sec.</p> <p>Immersion depth : Up to 0.5 to 1.0mm from terminal root.</p> <p>Recovery : 3hrs of recovery under the standard condition after the test.</p> |

| Item                        | Specified Value   |  |                                    |   |  |   |                                   |  | Test Method and Remarks   |      |                 |               |   |                                 |      |   |                  |          |   |                                 |      |   |                  |          |      |                 |               |   |   |      |   |                  |          |   |   |      |   |                  |          |      |                 |               |   |   |      |   |                  |          |   |   |      |   |                  |          |      |                 |               |   |                                 |      |   |                  |          |   |                                 |      |   |                  |          |
|-----------------------------|---|--|------------------------------------|---|--|---|-----------------------------------|--|---|------|-----------------|---------------|---|---------------------------------|------|---|------------------|----------|---|---------------------------------|------|---|------------------|----------|------|-----------------|---------------|---|---|------|---|------------------|----------|---|---|------|---|------------------|----------|------|-----------------|---------------|---|---|------|---|------------------|----------|---|---|------|---|------------------|----------|------|-----------------|---------------|---|---------------------------------|------|---|------------------|----------|---|---------------------------------|------|---|------------------|----------|
|                             | LA02 Type/<br>LA03 Type                                   | LA04 Type                                    | LA05 Type                          | LHL□□□/<br>LHF15BB/<br>LHFP□□BB   | FBA/FBR  | LAV35   | FL05□<br>Type                     | FL06BT<br>Type   |   |      |                 |               |   |                                 |      |   |                  |          |   |                                 |      |   |                  |          |      |                 |               |   |   |      |   |                  |          |   |   |      |   |                  |          |      |                 |               |   |   |      |   |                  |          |   |   |      |   |                  |          |      |                 |               |   |                                 |      |   |                  |          |   |                                 |      |   |                  |          |
| 22. Resisittance to solvent | Pleasa avoid the ultrasonic cleaning of this product.     |  |                                    |   | No significant abnormality in appearance<br>Impedance change :<br>Within±20% | Please avoid the ultrasonic cleaning of this product. |                                   |  | FB :<br>Solvent temperature : 20~25°C<br>Duration : 30±5 sec.<br>Solvent type : Acetone, trichloroethylene<br>Recovery : 3hrs of recovery under the standard condition after the test.  |      |                 |               |   |                                 |      |   |                  |          |   |                                 |      |   |                  |          |      |                 |               |   |   |      |   |                  |          |   |   |      |   |                  |          |      |                 |               |   |   |      |   |                  |          |   |   |      |   |                  |          |      |                 |               |   |                                 |      |   |                  |          |   |                                 |      |   |                  |          |
| 23. Thermal shock           | ΔL/L :<br>Within±10%<br>Q : 30min.                        | ΔL/L :<br>Within±10%<br>ΔQ/Q :<br>Within±30% | ΔL/L :<br>Within±10%<br>Q : 15min. | Appearance :<br>No abnormality<br>Inductance change :<br>Within±10%<br>Q change :<br>Within±30% | Appearance :<br>No abnormality<br>Impedance change :<br>Within±20%           | ΔL/L :<br>Within±10%<br>Q : 20min.                    | Refer to individual specification | Appearance :<br>No abnormality<br>Impedance change :<br>Within±20% | LA :<br>Conditions for 1 cycle <table border="1"> <thead> <tr> <th>Step</th> <th>Temperature(°C)</th> <th>Duration(min)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>-25<sup>+0</sup><sub>-3</sub></td> <td>30±3</td> </tr> <tr> <td>2</td> <td>Room temperature</td> <td>Within 3</td> </tr> <tr> <td>3</td> <td>+85<sup>+2</sup><sub>-0</sub></td> <td>30±3</td> </tr> <tr> <td>4</td> <td>Room temperature</td> <td>Within 3</td> </tr> </tbody> </table> Number of cycles : 5 cycles<br>Recovery : At least 1hr of recovery under the standard condition after the removal from test chamber, followed by the measurement within 2hrs.<br><br>LHL · LHF · FB :<br>According to JIS C0025<br>Conditions for 1 cycle <table border="1"> <thead> <tr> <th>Step</th> <th>Temperature(°C)</th> <th>Duration(min)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Minimum operating temperature<sup>+0</sup><sub>-3</sub></td> <td>30±3</td> </tr> <tr> <td>2</td> <td>Room temperature</td> <td>Within 3</td> </tr> <tr> <td>3</td> <td>Maximum operating temperature<sup>+2</sup><sub>-0</sub></td> <td>30±3</td> </tr> <tr> <td>4</td> <td>Room temperature</td> <td>Within 3</td> </tr> </tbody> </table> Number of cycles : 10 cycles<br>(LHL□□□, LHF□□BB, LHF15BB)<br>: 5 cycles(FBA, FBR)<br>Recovery : 4 to 24hrs of recovery under the standard condition after the removal from the test chamber.<br>(LHL□□□, LHF□□BB, LHF15BB)<br>: 3hrs of recovery under the standard condition after the removal from the test chamber.(FBA, FBR)<br><br>LAV :<br>Conditions for 1 cycle <table border="1"> <thead> <tr> <th>Step</th> <th>Temperature(°C)</th> <th>Duration(min)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Minimum operating temperature<sup>+0</sup><sub>-3</sub></td> <td>30±3</td> </tr> <tr> <td>2</td> <td>Room temperature</td> <td>Within 3</td> </tr> <tr> <td>3</td> <td>Maximum operating temperature<sup>+2</sup><sub>-0</sub></td> <td>30±3</td> </tr> <tr> <td>4</td> <td>Room temperature</td> <td>Within 3</td> </tr> </tbody> </table> Number of cycles : 10 cycles<br>Recovery : At least 1hr of recovery under the standard condition after the removal from test chamber, followed by the measurement within 2hrs.<br><br>FL :<br>According to JIS C0025<br>Conditions for 1 cycle <table border="1"> <thead> <tr> <th>Step</th> <th>Temperature(°C)</th> <th>Duration(min)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>-25<sup>+0</sup><sub>-3</sub></td> <td>30±3</td> </tr> <tr> <td>2</td> <td>Room temperature</td> <td>Within 3</td> </tr> <tr> <td>3</td> <td>+85<sup>+2</sup><sub>-0</sub></td> <td>30±3</td> </tr> <tr> <td>4</td> <td>Room temperature</td> <td>Within 3</td> </tr> </tbody> </table> Number of cycles : 10 cycles<br>Recovery : 1 to 2hrs of recovery under the standard condition after the removal from the test chamber. | Step | Temperature(°C) | Duration(min) | 1 | -25 <sup>+0</sup> <sub>-3</sub> | 30±3 | 2 | Room temperature | Within 3 | 3 | +85 <sup>+2</sup> <sub>-0</sub> | 30±3 | 4 | Room temperature | Within 3 | Step | Temperature(°C) | Duration(min) | 1 | Minimum operating temperature <sup>+0</sup> <sub>-3</sub> | 30±3 | 2 | Room temperature | Within 3 | 3 | Maximum operating temperature <sup>+2</sup> <sub>-0</sub> | 30±3 | 4 | Room temperature | Within 3 | Step | Temperature(°C) | Duration(min) | 1 | Minimum operating temperature <sup>+0</sup> <sub>-3</sub> | 30±3 | 2 | Room temperature | Within 3 | 3 | Maximum operating temperature <sup>+2</sup> <sub>-0</sub> | 30±3 | 4 | Room temperature | Within 3 | Step | Temperature(°C) | Duration(min) | 1 | -25 <sup>+0</sup> <sub>-3</sub> | 30±3 | 2 | Room temperature | Within 3 | 3 | +85 <sup>+2</sup> <sub>-0</sub> | 30±3 | 4 | Room temperature | Within 3 |
| Step                        | Temperature(°C)   | Duration(min)                                |                                    |   |  |   |                                   |  |   |      |                 |               |   |                                 |      |   |                  |          |   |                                 |      |   |                  |          |      |                 |               |   |   |      |   |                  |          |   |   |      |   |                  |          |      |                 |               |   |   |      |   |                  |          |   |   |      |   |                  |          |      |                 |               |   |                                 |      |   |                  |          |   |                                 |      |   |                  |          |
| 1                           | -25 <sup>+0</sup> <sub>-3</sub>                           | 30±3   |                                    |   |  |   |                                   |  |   |      |                 |               |   |                                 |      |   |                  |          |   |                                 |      |   |                  |          |      |                 |               |   |   |      |   |                  |          |   |   |      |   |                  |          |      |                 |               |   |   |      |   |                  |          |   |   |      |   |                  |          |      |                 |               |   |                                 |      |   |                  |          |   |                                 |      |   |                  |          |
| 2                           | Room temperature  | Within 3                                     |                                    |   |  |   |                                   |  |   |      |                 |               |   |                                 |      |   |                  |          |   |                                 |      |   |                  |          |      |                 |               |   |   |      |   |                  |          |   |   |      |   |                  |          |      |                 |               |   |   |      |   |                  |          |   |   |      |   |                  |          |      |                 |               |   |                                 |      |   |                  |          |   |                                 |      |   |                  |          |
| 3                           | +85 <sup>+2</sup> <sub>-0</sub>                           | 30±3   |                                    |   |  |   |                                   |  |   |      |                 |               |   |                                 |      |   |                  |          |   |                                 |      |   |                  |          |      |                 |               |   |   |      |   |                  |          |   |   |      |   |                  |          |      |                 |               |   |   |      |   |                  |          |   |   |      |   |                  |          |      |                 |               |   |                                 |      |   |                  |          |   |                                 |      |   |                  |          |
| 4                           | Room temperature  | Within 3                                     |                                    |   |  |   |                                   |  |   |      |                 |               |   |                                 |      |   |                  |          |   |                                 |      |   |                  |          |      |                 |               |   |   |      |   |                  |          |   |   |      |   |                  |          |      |                 |               |   |   |      |   |                  |          |   |   |      |   |                  |          |      |                 |               |   |                                 |      |   |                  |          |   |                                 |      |   |                  |          |
| Step                        | Temperature(°C)   | Duration(min)                                |                                    |   |  |   |                                   |  |   |      |                 |               |   |                                 |      |   |                  |          |   |                                 |      |   |                  |          |      |                 |               |   |   |      |   |                  |          |   |   |      |   |                  |          |      |                 |               |   |   |      |   |                  |          |   |   |      |   |                  |          |      |                 |               |   |                                 |      |   |                  |          |   |                                 |      |   |                  |          |
| 1                           | Minimum operating temperature <sup>+0</sup> <sub>-3</sub> | 30±3   |                                    |   |  |   |                                   |  |   |      |                 |               |   |                                 |      |   |                  |          |   |                                 |      |   |                  |          |      |                 |               |   |   |      |   |                  |          |   |   |      |   |                  |          |      |                 |               |   |   |      |   |                  |          |   |   |      |   |                  |          |      |                 |               |   |                                 |      |   |                  |          |   |                                 |      |   |                  |          |
| 2                           | Room temperature  | Within 3                                     |                                    |   |  |   |                                   |  |   |      |                 |               |   |                                 |      |   |                  |          |   |                                 |      |   |                  |          |      |                 |               |   |   |      |   |                  |          |   |   |      |   |                  |          |      |                 |               |   |   |      |   |                  |          |   |   |      |   |                  |          |      |                 |               |   |                                 |      |   |                  |          |   |                                 |      |   |                  |          |
| 3                           | Maximum operating temperature <sup>+2</sup> <sub>-0</sub> | 30±3   |                                    |   |  |   |                                   |  |   |      |                 |               |   |                                 |      |   |                  |          |   |                                 |      |   |                  |          |      |                 |               |   |   |      |   |                  |          |   |   |      |   |                  |          |      |                 |               |   |   |      |   |                  |          |   |   |      |   |                  |          |      |                 |               |   |                                 |      |   |                  |          |   |                                 |      |   |                  |          |
| 4                           | Room temperature  | Within 3                                     |                                    |   |  |   |                                   |  |   |      |                 |               |   |                                 |      |   |                  |          |   |                                 |      |   |                  |          |      |                 |               |   |   |      |   |                  |          |   |   |      |   |                  |          |      |                 |               |   |   |      |   |                  |          |   |   |      |   |                  |          |      |                 |               |   |                                 |      |   |                  |          |   |                                 |      |   |                  |          |
| Step                        | Temperature(°C)   | Duration(min)                                |                                    |   |  |   |                                   |  |   |      |                 |               |   |                                 |      |   |                  |          |   |                                 |      |   |                  |          |      |                 |               |   |   |      |   |                  |          |   |   |      |   |                  |          |      |                 |               |   |   |      |   |                  |          |   |   |      |   |                  |          |      |                 |               |   |                                 |      |   |                  |          |   |                                 |      |   |                  |          |
| 1                           | Minimum operating temperature <sup>+0</sup> <sub>-3</sub> | 30±3   |                                    |   |  |   |                                   |  |   |      |                 |               |   |                                 |      |   |                  |          |   |                                 |      |   |                  |          |      |                 |               |   |   |      |   |                  |          |   |   |      |   |                  |          |      |                 |               |   |   |      |   |                  |          |   |   |      |   |                  |          |      |                 |               |   |                                 |      |   |                  |          |   |                                 |      |   |                  |          |
| 2                           | Room temperature  | Within 3                                     |                                    |   |  |   |                                   |  |   |      |                 |               |   |                                 |      |   |                  |          |   |                                 |      |   |                  |          |      |                 |               |   |   |      |   |                  |          |   |   |      |   |                  |          |      |                 |               |   |   |      |   |                  |          |   |   |      |   |                  |          |      |                 |               |   |                                 |      |   |                  |          |   |                                 |      |   |                  |          |
| 3                           | Maximum operating temperature <sup>+2</sup> <sub>-0</sub> | 30±3   |                                    |   |  |   |                                   |  |   |      |                 |               |   |                                 |      |   |                  |          |   |                                 |      |   |                  |          |      |                 |               |   |   |      |   |                  |          |   |   |      |   |                  |          |      |                 |               |   |   |      |   |                  |          |   |   |      |   |                  |          |      |                 |               |   |                                 |      |   |                  |          |   |                                 |      |   |                  |          |
| 4                           | Room temperature  | Within 3                                     |                                    |   |  |   |                                   |  |   |      |                 |               |   |                                 |      |   |                  |          |   |                                 |      |   |                  |          |      |                 |               |   |   |      |   |                  |          |   |   |      |   |                  |          |      |                 |               |   |   |      |   |                  |          |   |   |      |   |                  |          |      |                 |               |   |                                 |      |   |                  |          |   |                                 |      |   |                  |          |
| Step                        | Temperature(°C)   | Duration(min)                                |                                    |   |  |   |                                   |  |   |      |                 |               |   |                                 |      |   |                  |          |   |                                 |      |   |                  |          |      |                 |               |   |   |      |   |                  |          |   |   |      |   |                  |          |      |                 |               |   |   |      |   |                  |          |   |   |      |   |                  |          |      |                 |               |   |                                 |      |   |                  |          |   |                                 |      |   |                  |          |
| 1                           | -25 <sup>+0</sup> <sub>-3</sub>                           | 30±3   |                                    |   |  |   |                                   |  |   |      |                 |               |   |                                 |      |   |                  |          |   |                                 |      |   |                  |          |      |                 |               |   |   |      |   |                  |          |   |   |      |   |                  |          |      |                 |               |   |   |      |   |                  |          |   |   |      |   |                  |          |      |                 |               |   |                                 |      |   |                  |          |   |                                 |      |   |                  |          |
| 2                           | Room temperature  | Within 3                                     |                                    |   |  |   |                                   |  |   |      |                 |               |   |                                 |      |   |                  |          |   |                                 |      |   |                  |          |      |                 |               |   |   |      |   |                  |          |   |   |      |   |                  |          |      |                 |               |   |   |      |   |                  |          |   |   |      |   |                  |          |      |                 |               |   |                                 |      |   |                  |          |   |                                 |      |   |                  |          |
| 3                           | +85 <sup>+2</sup> <sub>-0</sub>                           | 30±3   |                                    |   |  |   |                                   |  |   |      |                 |               |   |                                 |      |   |                  |          |   |                                 |      |   |                  |          |      |                 |               |   |   |      |   |                  |          |   |   |      |   |                  |          |      |                 |               |   |   |      |   |                  |          |   |   |      |   |                  |          |      |                 |               |   |                                 |      |   |                  |          |   |                                 |      |   |                  |          |
| 4                           | Room temperature  | Within 3                                     |                                    |   |  |   |                                   |  |   |      |                 |               |   |                                 |      |   |                  |          |   |                                 |      |   |                  |          |      |                 |               |   |   |      |   |                  |          |   |   |      |   |                  |          |      |                 |               |   |   |      |   |                  |          |   |   |      |   |                  |          |      |                 |               |   |                                 |      |   |                  |          |   |                                 |      |   |                  |          |

| Item                           | Specified Value                    |  |                                    |   |  |                                    |                                   |  | Test Method and Remarks  |
|--------------------------------|------------------------------------|--|------------------------------------|---|--|------------------------------------|-----------------------------------|--|--|
|                                | LA02 Type/<br>LA03 Type            | LA04 Type                                    | LA05 Type                          | LHL□□□/<br>LHF15BB/<br>LHFP□□BB   | FBA/FBR  | LAV35                              | FL05□<br>Type                     | FL06BT<br>Type   |  |
| 24.Damp heat                   | ΔL/L :<br>Within±10%<br>Q : 30min. | ΔL/L :<br>Within±10%<br>ΔQ/Q :<br>Within±30% | ΔL/L :<br>Within±10%<br>Q : 15min. |   | Appearance :<br>No abnormality<br>Impedance change :<br>Within±20% | ΔL/L :<br>Within±10%<br>Q : 20min. |                                   |  | LA・LAV35 :<br>Temperature : 40±2°C<br>Humidity : 90~95%RH<br>Duration : 1000 hrs<br>Recovery : At least 1hr of recovery under the standard removal from test chamber, followed by the measurement within 2hrs.<br><br>FB :<br>Temperature : 60±2°C<br>Humidity : 90~95%RH<br>Duration : 1000 hrs<br>Recovery : 1 to 2hrs of recovery under the standard condition after the removal from the test chamber.   |
| 25.Loading under damp heat     | ΔL/L :<br>Within±10%<br>Q : 30min. | ΔL/L :<br>Within±10%<br>ΔQ/Q :<br>Within±30% | ΔL/L :<br>Within±10%<br>Q : 15min. | Appearance :<br>No abnormality<br>Inductance change :<br>Within±10%<br>Q change :<br>Within±30% |  | ΔL/L :<br>Within±10%<br>Q : 20min. | Refer to individual specification | Appearance :<br>No abnormality<br>Impedance change :<br>Within±20% | LA・LAV35 :<br>Temperature : 40±2°C<br>Humidity : 90~95%RH<br>Duration : 1000 hrs<br>Applied current : Rated current<br>Recovery : At least 1hr of recovery under the standard removal from test chamber, followed by the measurement within 2hrs.<br><br>LHL・LHF・LHFP :<br>Temperature : 40±2°C<br>Humidity : 90~95%RH<br>Duration : 1000±24 hrs<br>Applied current : Rated current<br>Recovery : 1 to 2hrs of recovery under the standard condition after the removal from the test chamber.<br><br>FL :<br>Temperature : 60±3°C<br>Humidity : 90~95%RH<br>Duration : 500 (+12, -0)hrs<br>Applied current : Rated current<br>Recovery : 1 to 2hrs of recovery under the standard condition after the removal from the test chamber. |
| 26.Loading at high temperature | ΔL/L :<br>Within±10%<br>Q : 30min. | ΔL/L :<br>Within±10%<br>ΔQ/Q :<br>Within±30% | ΔL/L :<br>Within±10%<br>Q : 15min. |   |  | ΔL/L :<br>Within±10%<br>Q : 20min. |                                   |  | LA・LAV35 :<br>Temperature : 85±2°C<br>Duration : 1000 hrs<br>Applied current : Rated current<br>Recovery : At least 1hr of recovery under the standard removal from test chamber, followed by the measurement within 2hrs.   |

| Item                          | Specified Value                             |  |   |   |         |   |                                   |  | Test Method and Remarks  |
|-------------------------------|---|--|---|---|---------|---|-----------------------------------|--|--|
|                               | LA02 Type/<br>LA03 Type                     | LA04 Type  | LA05 Type                                   | LHL□□□/<br>LHF15BB/<br>LHFP□□BB   | FBA/FBR | LAV35                                       | FL05□<br>Type                     | FL06BT<br>Type   |  |
| 27.Low temperature life test  | <p>△L/L :<br/>Within±10%<br/>Q : 30min.</p> | <p>△L/L :<br/>Within±10%<br/>△Q/Q :<br/>Within±30%</p> | <p>△L/L :<br/>Within±10%<br/>Q : 15min.</p> | <p>Appearance :<br/>No abnormality<br/>Inductance change :<br/>Within±10%<br/>Q change :<br/>Within±30%</p> |         | <p>△L/L :<br/>Within±10%<br/>Q : 20min.</p> | Refer to individual specification | <p>Appearance :<br/>No abnormality<br/>Impedance change :<br/>Within±20%</p> | <p>LA :<br/>Temperature : -25±2°C<br/>Duration : 1000 hrs<br/>Recovery : At least 1hr of recovery under the standard removal from test chamber, followed by the measurement within 2hrs.</p> <p>LHL · LHF · LHFP :<br/>Temperature : -40±3°C<br/>Duration : 1000±24 hrs<br/>Recovery : 1 to 2hrs of recovery under the standard condition after the removal from the test chamber.</p> <p>LAV35 :<br/>Temperature : -40±3°C<br/>Duration : 1000 hrs<br/>Recovery : At least 1hr of recovery under the standard removal from test chamber, followed by the measurement within 2hrs.</p> <p>FL :<br/>Temperature : -40±3°C<br/>Duration : 500(+12, -0)hrs<br/>Recovery : 1 to 2hrs of recovery under the standard condition after the removal from the test chamber.</p> |
| 28.High temperature life test |   |  |   | <p>Appearance :<br/>No abnormality<br/>Inductance change :<br/>Within±10%<br/>Q change :<br/>Within±30%</p> |         |   | Refer to individual specification | <p>Appearance :<br/>No abnormality<br/>Impedance change :<br/>Within±20%</p> | <p>LHL · LHF · LHFP :<br/>Temperature : 105±3°C<br/>Duration : 1000±24 hrs<br/>Recovery : 1 to 2hrs of recovery under the standard condition after the removal from the test chamber.</p> <p>FL :<br/>Temperature : 85±3°C<br/>Duration : 500(+12, -0)hrs<br/>Recovery : 1 to 2hrs of recovery under the standard condition after the removal from the test chamber.</p>   |

## PRECAUTIONS

LA Type, LH Type, FB Type, FL Type

| Stages                                   | Precautions  | Technical considerations   |
|--|--|--|
| 1.Circuit Design                         | <p>Operating environment,</p> <p>1.The products described in this specification are intended for use in general electronic equipment,(office supply equipment, telecommunications systems, measuring equipment, and household equipment). They are not intended for use in mission-critical equipment or systems requiring special quality and high reliability (traffic systems, safety equipment, aerospace systems, nuclear control systems and medical equipment including life-support systems,) where product failure might result in loss of life, injury or damage. For such uses, contact TAIYO YUDEN Sales Department in advance.</p>  |  |
| 2.PCB Design                             | <p>Design</p> <p>1.Please design insertion pitches of a base in the pitches that fitted a terminal interval.</p>   | <p>1.When Inductors are mounted onto a PC board, hole dimensions on the board should match the lead pitch of the component, if not, it will cause breakage of the terminals or cracking of terminal roots covered with resin as excess stress travels through the terminal legs.</p>           |
| 3.Considerations for automatic placement | <p>Adjustment of mounting machine</p> <p>1.Excessive impact load should not be imposed on the products when mounting onto the PC boards.</p> <p>2.Mounting and soldering conditions should be checked beforehand.</p>  | <p>1. When installing products, care should be taken not to apply distortion stress as it may deform the products.</p>   |
| 4.Soldering                              | <p>Wave soldering</p> <p>1.Please refer to the specifications in the catalog for a wave soldering.</p> <p>2.Do not immerse the entire Inductors in the flux during the soldering operation.</p> <p>Lead free soldering</p> <p>1.When using products with lead free soldering, we request to use them after confirming of adhesion, temperature of resistance to soldering heat, soldering etc sufficiently.</p> <p>Recommended conditions for using a soldering iron:<br/>Put the soldering iron on the land-pattern.<br/>Soldering iron's temperature - Below 350 °C<br/>Duration - 3 seconds or less<br/>The soldering iron should not directly touch the inductor.</p>                            | <p>1.If products are used beyond the range of the recommended conditions, heat stresses may deform the products, and consequently degrade the reliability of the products.</p>   |
| 5.Cleaning                               | <p>Cleaning conditions</p> <p>1.LA type, LH type<br/>Please do not do cleaning by a supersonic wave.</p>   | <p>LA type, LH type</p> <p>1.If washing by supersonic waves, supersonic waves may deform products.</p>   |
| 6.Handling                               | <p>Handling</p> <p>1.Keep the inductors away from all magnets and magnetic objects.</p> <p>Mechanical considerations</p> <p>1.Please do not give the inductors any excessive mechanical shocks.</p> <p>2.LH type<br/>If inductors are dropped onto the floor or a hard surface they should not be used.</p> <p>Packing</p> <p>1.Please do not give the inductors any excessive mechanical shocks.</p> <p>In loading, please pay attention to handling indication mentioned in a packing box (a loading direction / number of maximum loading / fragile item).</p>  | <p>1.There is a case that a characteristic varies with magnetic influence.</p> <p>1.There is a case to be damaged by a mechanical shock.</p> <p>2.LH type<br/>There is a case to be broken by a fall.</p> <p>1.There is a case that a lead route turns at by a fall or an excessive shock.</p> |
| 7.Storage conditions                     | <p>Storage</p> <p>Storage</p> <p>1.To maintain the solderability of terminal electrodes and to keep the packing material in good condition, temperature and humidity in the storage area should be controlled..</p> <p>• Recommended conditions</p> <p>Ambient temperature           0~40°C</p> <p>Humidity                       Below 70 % RH</p> <p>The ambient temperature must be kept below 30°C. Even under ideal storage conditions, solderability of products electrodes may decrease as time passes. For this reason, inductors should be used within one year from the time of delivery.</p> <p>In case of storage over 6 months, solderability shall be checked before actual usage.</p> | <p>1. Under a high temperature and humidity environment, problems such as reduced solderability caused by oxidation of terminal electrodes and deterioration of taping/package materials may take place.</p>   |