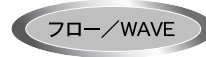
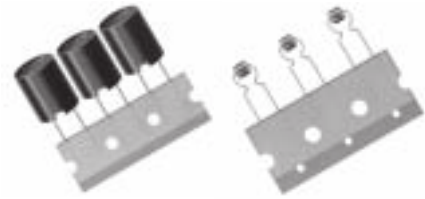


# ラジアルリードインダクタ

## RADIAL LEADED INDUCTORS



|                 |  |
|-----------------|--|
| OPERATING TEMP. | -25~+105℃(製品自己発熱含む)<br>(Including self-generated heat) |
|-----------------|--|

### 特長 FEATURES

- LHL08~LHL16シリーズはケース(LHF□□□BBはベース)タイプであるので、基板上での自立安定性に優れる
- 小電流用にはLAV35/LHL06が対応
- 大電流用にはLHLC06/LHLZ06/LHL08/LHL10/LHL13/LHL16/LHF□□□BBが対応
- LHF□□□BB以外は自動挿入対応
- LHFP13/15BBは大電流用の磁気シールドタイプ
- The LHL08~LHL16 series radial inductors are encapsulated in a resin housing which adds to the stability of the mounted part on a printed circuit board.
- The LAV35 and LHL06 series are for small current applications.
- The LHLC06/LHLZ06/LHL08/LHL10/LHL13/LHL16/LHF□□□BB series are for high current applications.
- All items can be packaged for automatic insertion except the LHF□□□BB type.
- The LHFP13/15BB series are shielded type for high current applications.

### 用途 APPLICATIONS

- 一般民生(テレビ、ビデオ等の家電)、産機用機器の電源用チョークコイル
- 各種フィルタ用ピーキングコイル
- Ideal for use as a power choke coil in general household appliances (TV sets, video appliances, etc.) and industrial equipment
- Can also be used as a peaking coil in filtering applications

### 形名表記法 ORDERING CODE

|                |                                |                     |                      |               |
|----------------|--------------------------------|---------------------|----------------------|---------------|
| <b>1 2</b>     | <b>3</b>                       | <b>4</b>            | <b>5</b>             | <b>6</b>      |
| 形式             | 外形寸法 (mm 以下)                   | 包装                  | 公称インダクタンス [ $\mu$ H] | インダクタンス許容差[%] |
| LA アキシアルインダクタ  | 06 L06 6.8, LC06 7.5, LZ06 7.8 | BB 単品 (LHF)         | 例                    | J $\pm 5$     |
| LH ラジアルインダクタ   | 08 9.0                         | NB 単品 (LHL)         | 1R0 1.0              | K $\pm 10$    |
|                | 10 11.0                        | TB つづら折りテーピング (LHL) | 150 15               | M $\pm 20$    |
|                | 13 LHL 14.0, LHFP 14.5         | VB つづら折りテーピング (LAV) | 102 1000             | N $\pm 30$    |
|                | 15 LHF 18.0, LHFP 16.0         |                     | ※R= 小数点              |               |
|                | 16 17.0                        |                     |                      |               |
|                | 35 6.0(LAV)                    |                     |                      |               |
| <b>2</b>       |                                |                     |                      | <b>7</b>      |
| 形状記号           |                                |                     |                      | 当社管理記号        |
| F△ 単品のみ        |                                |                     |                      | △△△ 標準品       |
| FP 磁気シールドタイプ単品 |                                |                     |                      | △=スペース        |
| L△ テーピング対応品    |                                |                     |                      |               |
| LC 大電流タイプ      |                                |                     |                      |               |
| LZ 大電流、低RDCタイプ |                                |                     |                      |               |
| V△ ラジアルフォーミング  |                                |                     |                      |               |
| △=スペース         |                                |                     |                      |               |



|                                   |                                |                         |                              |                           |
|-----------------------------------|--------------------------------|-------------------------|------------------------------|---------------------------|
| <b>1</b>                          | <b>3</b>                       | <b>4</b>                | <b>5</b>                     | <b>6</b>                  |
| Type                              | External dimensions(mm max)    | Packaging Code          | Nominal Inductance( $\mu$ H) | Inductance Tolerances (%) |
| LA Axial inductor                 | 06 L06 6.8, LC06 7.5, LZ06 7.8 | BB Bulk(LHF)            | example                      | J $\pm 5$                 |
| LH Radial inductor                | 08 9.0                         | NB Bulk(LHL)            | 1R0 1.0                      | K $\pm 10$                |
|                                   | 10 11.0                        | TB Ammo packaging (LHL) | 150 15                       | M $\pm 20$                |
|                                   | 13 14.0                        | VB Ammo packaging (LAV) | 102 1000                     | N $\pm 30$                |
|                                   | 15 18.0                        |                         | ※R=Decimal point             |                           |
|                                   | 16 17.0                        |                         |                              |                           |
|                                   | 35 6.0(LAV)                    |                         |                              |                           |
| <b>2</b>                          |                                |                         |                              | <b>7</b>                  |
| Configuration                     |                                |                         |                              | Internal code             |
| F△ Bulk only                      |                                |                         |                              | △△△ Standard product      |
| FP Shielded type Bulk only        |                                |                         |                              | △=Blank space             |
| L△ Standard type Taping available |                                |                         |                              |                           |
| LC High current type              |                                |                         |                              |                           |
| LZ High current, low RDC type     |                                |                         |                              |                           |
| V△ Radial formed lead             |                                |                         |                              |                           |
| △=Blank space                     |                                |                         |                              |                           |

外形寸法 EXTERNAL DIMENSIONS

| Type           | LAV35                     | LHL06                     | LHLC06                    | LHLZ06                    | LHL08                     | LHL10                     | LHL13                     | LHL16                     | LHF15BB                   | LHFP13BB                  | LHFP15BB                  |
|----------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|
| Fig.           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |                           |
| D              | 6.0max<br>(0.236max)      | 6.8max<br>(0.268max)      | 7.5max<br>(0.295max)      | 7.8max<br>(0.307max)      | 9.0max<br>(0.354max)      | 11.0max<br>(0.433max)     | 14.0max<br>(0.551max)     | 17.0max<br>(0.669max)     | 18.0max<br>(0.709max)     | 14.5max<br>(0.571max)     | 16.0max<br>(0.630max)     |
| H <sub>2</sub> | 8.0max<br>(0.315max)      | 11.0max<br>(0.433max)     | 11.0max<br>(0.433max)     | 11.0max<br>(0.433max)     | 9.5max<br>(0.374max)      | 14.0max<br>(0.551max)     | 17.0max<br>(0.669max)     | 21.0max<br>(0.827max)     | 23.0max<br>(0.906max)     | 20.0max<br>(0.788max)     | 23.0max<br>(0.906max)     |
| l              | —                         | 5.0±1.0<br>(0.197±0.039)  | 5.0±1.0<br>(0.197±0.039)  | 5.0±1.0<br>(0.197±0.039)  | 5.0±1.0<br>(0.197±0.039)  | 5.0±1.0<br>(0.197±0.039)  | 5.0±1.0<br>(0.197±0.039)  | 5.0±1.0<br>(0.197±0.039)  | 5.0±1.0<br>(0.197±0.039)  | 5.0±1.0<br>(0.197±0.039)  | 5.0±1.0<br>(0.197±0.039)  |
| F              | —                         | 5.0±1.0<br>(0.197±0.039)  | 5.0±1.0<br>(0.197±0.039)  | 5.0±1.0<br>(0.197±0.039)  | 5.0±1.0<br>(0.197±0.039)  | 5.0±1.0<br>(0.197±0.039)  | 7.5±1.0<br>(0.295±0.039)  | 7.5±1.0<br>(0.295±0.039)  | 10.0±1.0<br>(0.394±0.039) | 7.5±1.0<br>(0.295±0.039)  | 7.5±1.0<br>(0.295±0.039)  |
| φd             | 0.5±0.05<br>(0.020±0.002) | 0.6±0.05<br>(0.024±0.002) | 0.6±0.05<br>(0.024±0.002) | 0.6±0.05<br>(0.024±0.002) | 0.6±0.05<br>(0.024±0.002) | 0.6±0.05<br>(0.024±0.002) | 0.8±0.05<br>(0.031±0.002) | 0.8±0.05<br>(0.031±0.002) | 1.0±0.05<br>(0.039±0.002) | 0.8±0.05<br>(0.031±0.002) | 0.8±0.05<br>(0.031±0.002) |

Unit : mm(inch)

概略バリエーション AVAILABLE INDUCTANCE RANGE

| Range | Type           | LAV35 | LHL06 | LHLC06 | LHLZ06 | LHL08 | LHL10 | LHL13 | LHL16 | LHF15BB | LHFP13BB | LHFP15BB |
|-------|----------------|-------|-------|--------|--------|-------|-------|-------|-------|---------|----------|----------|
|       | Inductance [H] |       | 0.22μ | 1.0μ   | 1.0μ   | 1.0μ  | 1.0μ  | 3.3μ  | 10μ   | 47μ     | 47μ      | 10μ      |
|       |                | 1.0m  | 10m   | 100μ   | 1.0m   | 33m   | 150m  | 10m   | 10m   | 10m     | 10m      | 10m      |

| 代 表 値<br>Examples | Inductance<br>[H] | LAV35                           | LHL06                           | LHLC06                          | LHLZ06                          | LHL08                           | LHL10                           | LHL13                           | LHL16                           | LHF15BB                         | LHFP13BB                        | LHFP15BB                        |
|-------------------|-------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|
|                   |                   | 直流抵抗<br>DC<br>Resistance<br>[Ω] | 定格電流<br>Rated<br>current<br>[A] | 直流抵抗<br>DC<br>Resistance<br>[Ω] | 定格電流<br>Rated<br>current<br>[A] | 直流抵抗<br>DC<br>Resistance<br>[Ω] | 定格電流<br>Rated<br>current<br>[A] | 直流抵抗<br>DC<br>Resistance<br>[Ω] | 定格電流<br>Rated<br>current<br>[A] | 直流抵抗<br>DC<br>Resistance<br>[Ω] | 定格電流<br>Rated<br>current<br>[A] | 直流抵抗<br>DC<br>Resistance<br>[Ω] |
|                   | max.              | max.                            | max.                            | max.                            | max.                            | max.                            | max.                            | max.                            | max.                            | max.                            | max.                            | max.                            |
|                   | max.              | max.                            | max.                            | max.                            | max.                            | max.                            | max.                            | max.                            | max.                            | max.                            | max.                            | max.                            |
| 1.0μ              | 0.17              | 0.79                            | 0.15                            | 0.75                            | 0.049                           | 2.5                             | 0.026                           | 3.4                             | 0.013                           | 4.7                             | —                               | —                               |
| 10μ               | 0.45              | 0.46                            | 0.47                            | 0.41                            | 0.19                            | 1.2                             | 0.10                            | 1.7                             | 0.041                           | 2.4                             | 0.034                           | 3.2                             |
| 100μ              | 3.3               | 0.15                            | 1.4                             | 0.21                            | 0.92                            | 0.42                            | 0.77                            | 0.57                            | 0.32                            | 0.79                            | 0.18                            | 1.2                             |
| 1.0m              | 28.0              | 0.055                           | 10.0                            | 0.065                           | —                               | —                               | 9.5                             | 0.16                            | 2.7                             | 0.25                            | 1.8                             | 0.41                            |
| 10m               | —                 | —                               | 96.0                            | 0.022                           | —                               | —                               | —                               | 32.0                            | 0.070                           | 19.0                            | 0.12                            | 10.0                            |
| 100m              | —                 | —                               | —                               | —                               | —                               | —                               | —                               | —                               | 240.0                           | 0.031                           | —                               | —                               |

セレクションガイド  
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

LAV35

| 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<br>[%] | Q<br>(min.) | 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.) | 測定<br>周波数<br>Measuring<br>frequency<br>[MHz] |      |
|---------------------|-------------------------------------|--|-------------|--|---|--|--|------|
| LAV35VBR22M         | 0.22                                | ±20%   | 50.0        | 170.0  | 0.09                                      | 1000.0                                     | 25.2   |      |
| LAV35VBR27M         | 0.27                                |  |             | 160.0  | 0.10                                      | 980.0                                      |  |      |
| LAV35VBR33M         | 0.33                                |  |             | 140.0  | 0.11                                      | 960.0                                      |  |      |
| LAV35VBR39M         | 0.39                                |  |             | 130.0  | 0.12                                      | 940.0                                      |  |      |
| LAV35VBR47M         | 0.47                                |  |             | 120.0  | 0.13                                      | 910.0                                      |  |      |
| LAV35VBR56M         | 0.56                                |  |             | 110.0  | 0.14                                      | 880.0                                      |  |      |
| LAV35VBR68M         | 0.68                                |  |             | 100.0  | 0.15                                      | 850.0                                      |  |      |
| LAV35VBR82M         | 0.82                                |  |             | 90.0   | 0.16                                      | 820.0                                      |  |      |
| LAV35VB1R0K         | 1.0                                 | ±10%   |             | 50.0   | 82.0                                      | 0.17                                       | 790.0  | 7.96 |
| LAV35VB1R2K         | 1.2                                 |  |             |  | 70.0                                      | 0.18                                       | 760.0  |      |
| LAV35VB1R5K         | 1.5                                 |  |             |  | 65.0                                      | 0.20                                       | 730.0  |      |
| LAV35VB1R8K         | 1.8                                 |  |             |  | 57.0                                      | 0.22                                       | 700.0  |      |
| LAV35VB2R2K         | 2.2                                 |  |             |  | 47.0                                      | 0.24                                       | 670.0  |      |
| LAV35VB2R7K         | 2.7                                 |  |             |  | 40.0                                      | 0.26                                       | 640.0  |      |
| LAV35VB3R3K         | 3.3                                 |  |             |  | 35.0                                      | 0.28                                       | 610.0  |      |
| LAV35VB3R9K         | 3.9                                 |  |             |  | 33.0                                      | 0.30                                       | 580.0  |      |
| LAV35VB4R7K         | 4.7                                 |  |             |  | 31.0                                      | 0.33                                       | 560.0  |      |
| LAV35VB5R6K         | 5.6                                 |  |             |  | 27.0                                      | 0.36                                       | 540.0  |      |
| LAV35VB6R8K         | 6.8                                 |  |             |  | 24.0                                      | 0.39                                       | 520.0  |      |
| LAV35VB8R2K         | 8.2                                 |  |             |  | 22.0                                      | 0.42                                       | 490.0  |      |
| LAV35VB100K         | 10.0                                |  |             |  | 21.0                                      | 0.45                                       | 460.0  |      |
| LAV35VB120K         | 12.0                                |  |             |  | 18.0                                      | 1.2  | 350.0  |      |
| LAV35VB150K         | 15.0                                |  |             |  | 16.0                                      | 1.3  | 330.0  |      |
| LAV35VB180K         | 18.0                                |  |             |  | 14.0                                      | 1.4  | 300.0  |      |
| LAV35VB220K         | 22.0                                |  |             |  | 13.0                                      | 1.5  | 270.0  |      |
| LAV35VB270K         | 27.0                                |  |             |  | 12.0                                      | 1.6  | 250.0  |      |
| LAV35VB330K         | 33.0                                | 11.0   |             | 1.8  | 235.0                                     |  |  |      |
| LAV35VB390K         | 39.0                                | 10.0   |             | 2.0  | 220.0                                     |  |  |      |
| LAV35VB470K         | 47.0                                | 9.5  | 2.2         | 200.0  |   |  |  |      |
| LAV35VB560K         | 56.0                                | 9.0  | 2.4         | 190.0  |   |  |  |      |
| LAV35VB680K         | 68.0                                | 8.5  | 2.8         | 170.0  |   |  |  |      |
| LAV35VB820K         | 82.0                                | 8.0  | 3.0         | 155.0  |   |  |  |      |
| LAV35VB101J         | 100.0                               | ±5%  | 50.0        | 7.5  | 3.3                                       | 150.0                                      | 0.796  |      |
| LAV35VB121J         | 120.0                               |  |             | 6.8  | 4.2                                       | 140.0                                      |  |      |
| LAV35VB151J         | 150.0                               |  |             | 6.2  | 5.0                                       | 130.0                                      |  |      |
| LAV35VB181J         | 180.0                               |  |             | 5.6  | 6.0                                       | 125.0                                      |  |      |
| LAV35VB221J         | 220.0                               |  |             | 5.0  | 7.5                                       | 120.0                                      |  |      |
| LAV35VB271J         | 270.0                               |  |             | 4.6  | 11  | 105.0                                      |  |      |
| LAV35VB331J         | 330.0                               |  |             | 4.2  | 13  | 95.0                                       |  |      |
| LAV35VB391J         | 390.0                               |  |             | 3.8  | 15  | 90.0                                       |  |      |
| LAV35VB471J         | 470.0                               |  |             | 3.4  | 17  | 80.0                                       |  |      |
| LAV35VB561J         | 560.0                               |  |             | 3.0  | 19  | 75.0                                       |  |      |
| LAV35VB681J         | 680.0                               |  |             | 2.6  | 22  | 68.0                                       |  |      |
| LAV35VB821J         | 820.0                               |  |             | 2.2  | 25  | 60.0                                       |  |      |
| LAV35VB102J         | 1000.0                              | 2.0  | 28          | 55.0   |   |  |  |      |

LHL06

| 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.) | 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.) | 測定<br>周波数<br>Measuring<br>frequency<br>[MHz] |
|---------------------|-------------------------------------|---|-------------|--|---|--|--|
| LHL06□1R0M          | 1.0                                 | ±20%                                      | 50.0        | 87.0   | 0.15                                      | 750.0                                      | 7.96   |
| LHL06□1R2M          | 1.2                                 |   |             | 78.0   | 0.16                                      | 720.0                                      |  |
| LHL06□1R5M          | 1.5                                 |   |             | 76.0   | 0.17                                      | 680.0                                      |  |
| LHL06□1R8M          | 1.8                                 |   |             | 70.0   | 0.18                                      | 650.0                                      |  |
| LHL06□2R2M          | 2.2                                 |   |             | 57.0   | 0.20                                      | 610.0                                      |  |
| LHL06□2R7M          | 2.7                                 |   |             | 47.0   | 0.25                                      | 580.0                                      |  |
| LHL06□3R3M          | 3.3                                 |   |             | 40.0   | 0.26                                      | 560.0                                      |  |
| LHL06□3R9K          | 3.9                                 |   |             | 35.0   | 0.27                                      | 530.0                                      |  |
| LHL06□4R7K          | 4.7                                 |   |             | 32.0   | 0.30                                      | 510.0                                      |  |
| LHL06□5R6K          | 5.6                                 |   |             | 25.0   | 0.34                                      | 480.0                                      |  |
| LHL06□6R8K          | 6.8                                 | 23.0                                      | 0.38        | 460.0  |   |  |  |
| LHL06□8R2K          | 8.2                                 | 22.0                                      | 0.39        | 440.0  |   |  |  |
| LHL06□100K          | 10.0                                | 18.0                                      | 0.47        | 410.0  | 2.52                                      |  |  |
| LHL06□120K          | 12.0                                | 17.0                                      | 0.39        | 400.0  |   |  |  |
| LHL06□150K          | 15.0                                | 16.0                                      | 0.46        | 380.0  |   |  |  |
| LHL06□180K          | 18.0                                | 14.0                                      | 0.51        | 360.0  |   |  |  |
| LHL06□220K          | 22.0                                | 13.0                                      | 0.52        | 340.0  |   |  |  |
| LHL06□270K          | 27.0                                | 11.0                                      | 0.62        | 320.0  |   |  |  |
| LHL06□330K          | 33.0                                | 10.0                                      | 0.68        | 300.0  |   |  |  |
| LHL06□390K          | 39.0                                | 8.9                                       | 0.78        | 290.0  |   |  |  |
| LHL06□470K          | 47.0                                | 8.5                                       | 0.85        | 270.0  |   |  |  |
| LHL06□560K          | 56.0                                | 8.2                                       | 0.90        | 250.0  |   |  |  |
| LHL06□680K          | 68.0                                | 7.2                                       | 1.1         | 245.0  | 0.796                                     |  |  |
| LHL06□820K          | 82.0                                | 7.0                                       | 1.2         | 230.0  |   |  |  |
| LHL06□101K          | 100.0                               | 6.8                                       | 1.4         | 210.0  |   |  |  |
| LHL06□121K          | 120.0                               | 6.6                                       | 1.5         | 190.0  |   |  |  |
| LHL06□151K          | 150.0                               | 5.8                                       | 1.7         | 170.0  |   |  |  |
| LHL06□181K          | 180.0                               | 5.2                                       | 2.0         | 165.0  |   |  |  |
| LHL06□221K          | 220.0                               | 4.7                                       | 2.3         | 160.0  |   |  |  |
| LHL06□271K          | 270.0                               | 4.6                                       | 2.6         | 130.0  |   |  |  |
| LHL06□331K          | 330.0                               | 4.0                                       | 3.1         | 120.0  |   |  |  |
| LHL06□391K          | 390.0                               | 3.5                                       | 3.9         | 110.0  |   |  |  |
| LHL06□471K          | 470.0                               | 3.4                                       | 4.4         | 100.0  | 0.252                                     |  |  |
| LHL06□561K          | 560.0                               | 3.1                                       | 4.8         | 85.0   |   |  |  |
| LHL06□681K          | 680.0                               | 2.9                                       | 6.8         | 80.0   |   |  |  |
| LHL06□821K          | 820.0                               | 2.5                                       | 7.9         | 75.0   |   |  |  |
| LHL06□102J          | 1000.0                              | 2.4                                       | 10.0        | 65.0   |   |  |  |
| LHL06□122J          | 1200.0                              | 2.0                                       | 12.0        | 58.0   |   |  |  |
| LHL06□152J          | 1500.0                              | 1.8                                       | 17.0        | 54.0   |   |  |  |
| LHL06□182J          | 1800.0                              | 1.7                                       | 20.0        | 51.0   |   |  |  |
| LHL06□222J          | 2200.0                              | 1.6                                       | 21.0        | 49.0   |   |  |  |
| LHL06□272J          | 2700.0                              | 1.5                                       | 26.0        | 44.0   |   |  |  |
| LHL06□332J          | 3300.0                              | 1.3                                       | 34.0        | 37.0   | 0.0796                                    |  |  |
| LHL06□392J          | 3900.0                              | 1.2                                       | 38.0        | 35.0   |   |  |  |
| LHL06□472J          | 4700.0                              | 1.1                                       | 42.0        | 33.0   |   |  |  |
| LHL06□562J          | 5600.0                              | 1.0                                       | 52.0        | 30.0   |   |  |  |
| LHL06□682J          | 6800.0                              | 0.9                                       | 74.0        | 26.0   |   |  |  |
| LHL06□822J          | 8200.0                              | 0.8                                       | 84.0        | 24.0   |   |  |  |
| LHL06□103J          | 10000.0                             | 40.0                                      | 0.7         | 96.0   |   | 22.0                                       |  |

形名の□には包装記号(TB：テーピング, NB：単品)が入ります。

□ Please specify the packaging code.(TB：Taping, NB：Bulk)

LHLC06

| 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.) | 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>[A]<br>(max.) | 測定<br>周波数<br>Measuring<br>frequency<br>[MHz] |       |
|---------------------|-------------------------------------|---|-------------|--|---|---|--|-------|
| LHLC06□1R0M         | 1.0                                 | ±20%                                      | 20.0        | 98.0   | 0.049                                     | 2.5                                       | 7.96   |       |
| LHLC06□1R5M         | 1.5                                 |   |             | 67.0   | 0.066                                     | 2.1                                       |  |       |
| LHLC06□2R2M         | 2.2                                 |   |             | 58.0   | 0.074                                     | 1.9                                       |  |       |
| LHLC06□3R3M         | 3.3                                 |   |             | 37.0   | 0.11                                      | 1.6                                       |  |       |
| LHLC06□4R7K         | 4.7                                 |   |             | 29.0   | 0.12                                      | 1.4                                       |  |       |
| LHLC06□6R8K         | 6.8                                 |   |             | 24.0   | 0.14                                      | 1.3                                       |  |       |
| LHLC06□100K         | 10.0                                | ±10%                                      | 30.0        | 19.0   | 0.19                                      | 1.2                                       | 2.52   |       |
| LHLC06□120K         | 12.0                                |   |             | 17.0   | 0.20                                      | 1.15                                      |  |       |
| LHLC06□150K         | 15.0                                |   |             | 15.0   | 0.23                                      | 1.0                                       |  |       |
| LHLC06□180K         | 18.0                                |   |             | 13.0   | 0.26                                      | 0.95                                      |  |       |
| LHLC06□220K         | 22.0                                |   |             | 12.0   | 0.28                                      | 0.90                                      |  |       |
| LHLC06□270K         | 27.0                                |   |             | 11.0   | 0.33                                      | 0.80                                      |  |       |
| LHLC06□330K         | 33.0                                |   |             | 9.4  | 0.37                                      | 0.73                                      |  |       |
| LHLC06□390K         | 39.0                                |   | 9.3         | 0.50   | 0.70                                      |   |  |       |
| LHLC06□470K         | 47.0                                |   | 9.2         | 0.57   | 0.63                                      |   |  |       |
| LHLC06□560K         | 56.0                                |   | 25.0        | 8.8  | 0.63                                      | 0.57                                      |  |       |
| LHLC06□680K         | 68.0                                |   |             | 8.2  | 0.70                                      | 0.53                                      |  |       |
| LHLC06□820K         | 82.0                                |   |             | 7.6  | 0.78                                      | 0.48                                      |  |       |
| LHLC06□101K         | 100.0                               |   |             | 6.9  | 0.92                                      | 0.42                                      |  | 0.796 |

形名の□には包装記号(TB：テーピング, NB：単品)が入ります。

□ Please specify the packaging code.(TB：Taping, NB：Bulk)

LHLZ06

| 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.) | 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>[A]<br>(max.) | 測定<br>周波数<br>Measuring<br>frequency<br>[MHz] |       |
|---------------------|-------------------------------------|---|-------------|--|---|---|--|-------|
| LHLZ06□1R0M         | 1.0                                 | ±20%                                      | 20.0        | 85.0   | 0.026                                     | 3.4                                       | 7.96   |       |
| LHLZ06□1R5M         | 1.5                                 |   |             | 65.0   | 0.032                                     | 3.0                                       |  |       |
| LHLZ06□2R2M         | 2.2                                 |   |             | 50.0   | 0.039                                     | 2.6                                       |  |       |
| LHLZ06□3R3M         | 3.3                                 |   |             | 35.0   | 0.047                                     | 2.3                                       |  |       |
| LHLZ06□4R7M         | 4.7                                 |   |             | 28.0   | 0.055                                     | 2.1                                       |  |       |
| LHLZ06□6R8M         | 6.8                                 |   |             | 23.0   | 0.070                                     | 1.9                                       |  |       |
| LHLZ06□100K         | 10.0                                | ±10%                                      | 30.0        | 18.0   | 0.10                                      | 1.7                                       | 2.52   |       |
| LHLZ06□150K         | 15.0                                |   | 14.0        | 0.14   | 1.3                                       |   |  |       |
| LHLZ06□220K         | 22.0                                |   | 20.0        | 9.5  | 0.19                                      | 1.2                                       |  |       |
| LHLZ06□330K         | 33.0                                |   |             | 8.2  | 0.28                                      | 0.92                                      |  |       |
| LHLZ06□470K         | 47.0                                |   |             | 7.7  | 0.35                                      | 0.82                                      |  |       |
| LHLZ06□680K         | 68.0                                |   |             | 6.9  | 0.50                                      | 0.71                                      |  |       |
| LHLZ06□101K         | 100.0                               |   |             | 5.6  | 0.77                                      | 0.57                                      |  |       |
| LHLZ06□151K         | 150.0                               |   |             | 4.2  | 1.2                                       | 0.47                                      |  |       |
| LHLZ06□221K         | 220.0                               |   |             | 30.0   | 3.8                                       | 2.0                                       |  | 0.36  |
| LHLZ06□331K         | 330.0                               |   | 3.1         |  | 2.5                                       | 0.31                                      |  |       |
| LHLZ06□471K         | 470.0                               |   | 2.4         |  | 3.9                                       | 0.24                                      |  |       |
| LHLZ06□681K         | 680.0                               |   | 50.0        | 2.1  | 5.0                                       | 0.21                                      |  | 0.796 |
| LHLZ06□102J         | 1000.0                              |   |             | 1.6  | 9.5                                       | 0.16                                      |  |       |

形名の□には包装記号(TB：テーピング, NB：単品)が入ります。

□ Please specify the packaging code.(TB：Taping, NB：Bulk)

LHL08

| 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.) | 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>[A]<br>(max.) | 測定<br>周波数<br>Measuring<br>frequency<br>[MHz] |       |
|---------------------|-------------------------------------|---|-------------|--|---|---|--|-------|
| LHL08□1R0N          | 1.0                                 | ±30%                                      | 40.0        | 76.0   | 0.013                                     | 4.7                                       | 7.96   |       |
| LHL08□1R5M          | 1.5                                 | ±20%                                      |             | 65.0   | 0.014                                     | 4.4                                       |  |       |
| LHL08□2R2M          | 2.2                                 |   |             | 56.0   | 0.017                                     | 4.1                                       |  |       |
| LHL08□2R7M          | 2.7                                 |   |             | 48.0   | 0.019                                     | 3.5                                       |  |       |
| LHL08□3R3M          | 3.3                                 |   |             | 41.0   | 0.021                                     | 3.2                                       |  |       |
| LHL08□3R9M          | 3.9                                 |   |             | 33.0   | 0.024                                     | 3.1                                       |  |       |
| LHL08□4R7M          | 4.7                                 |   |             | 30.0   | 0.025                                     | 3.0                                       |  |       |
| LHL08□5R6M          | 5.6                                 |   |             | 23.0   | 0.028                                     | 2.9                                       |  |       |
| LHL08□6R8M          | 6.8                                 |   |             | 21.0   | 0.030                                     | 2.8                                       |  |       |
| LHL08□8R2M          | 8.2                                 |   |             | 19.0   | 0.034                                     | 2.5                                       |  |       |
| LHL08□100K          | 10.0                                |   | ±10%        | 65.0   | 17.0                                      | 0.041                                     | 2.4  | 2.52  |
| LHL08□120K          | 12.0                                | 16.0                                      |             | 0.044  | 2.3                                       |   |  |       |
| LHL08□150K          | 15.0                                | 50.0                                      |             | 13.0   | 0.053                                     | 2.0                                       |  |       |
| LHL08□180K          | 18.0                                |   |             | 12.0   | 0.060                                     | 1.9                                       |  |       |
| LHL08□220K          | 22.0                                |   |             | 11.0   | 0.068                                     | 1.8                                       |  |       |
| LHL08□270K          | 27.0                                |   |             | 10.0   | 0.091                                     | 1.5                                       |  |       |
| LHL08□330K          | 33.0                                | 40.0                                      |             | 8.8  | 0.10                                      | 1.4                                       |  |       |
| LHL08□390K          | 39.0                                |   |             | 8.4  | 0.12                                      | 1.3                                       |  |       |
| LHL08□470K          | 47.0                                |   |             | 8.2  | 0.15                                      | 1.2                                       |  |       |
| LHL08□560K          | 56.0                                |   |             | 7.9  | 0.17                                      | 1.1                                       |  |       |
| LHL08□680K          | 68.0                                | 35.0                                      |             | 7.0  | 0.20                                      | 1.0                                       |  |       |
| LHL08□820K          | 82.0                                |   |             | 6.5  | 0.22                                      | 0.90                                      |  |       |
| LHL08□101K          | 100.0                               |   |             | 25.0   | 5.7                                       | 0.32                                      | 0.79   | 0.796 |
| LHL08□121K          | 120.0                               |   |             | 5.2  | 0.36                                      | 0.70                                      |  |       |
| LHL08□151K          | 150.0                               | 20.0                                      |             | 4.7  | 0.41                                      | 0.64                                      |  |       |
| LHL08□181K          | 180.0                               | 35.0                                      |             | 4.2  | 0.66                                      | 0.60                                      |  |       |
| LHL08□221K          | 220.0                               |   |             | 3.7  | 0.73                                      | 0.53                                      |  |       |
| LHL08□271K          | 270.0                               | 25.0                                      |             | 3.5  | 0.85                                      | 0.51                                      |  |       |
| LHL08□331K          | 330.0                               |   |             | 3.2  | 0.97                                      | 0.44                                      |  |       |
| LHL08□391K          | 390.0                               | 20.0                                      |             | 2.9  | 1.1                                       | 0.41                                      |  |       |
| LHL08□471K          | 470.0                               |   | 2.4         | 1.3  | 0.38                                      |   |  |       |
| LHL08□561K          | 560.0                               | 25.0                                      | 2.2         | 1.5  | 0.35                                      |   |  |       |
| LHL08□681K          | 680.0                               |   | 2.0         | 1.8  | 0.32                                      |   |  |       |
| LHL08□821K          | 820.0                               | 30.0                                      | 1.6         | 2.3  | 0.30                                      | 0.252                                     |  |       |
| LHL08□102J          | 1000.0                              | 55.0                                      | 1.5         | 2.7  | 0.25                                      |   |  |       |
| LHL08□122J          | 1200.0                              | 45.0                                      | 1.4         | 3.2  | 0.22                                      |   |  |       |
| LHL08□152J          | 1500.0                              |   | 55.0        | 1.3  | 4.1                                       |   | 0.20   |       |
| LHL08□182J          | 1800.0                              |   |             | 1.2  | 4.8                                       |   | 0.19   |       |
| LHL08□222J          | 2200.0                              |   |             | 1.1  | 5.6                                       |   | 0.16   |       |
| LHL08□272J          | 2700.0                              |   |             | 1.0  | 7.5                                       |   | 0.15   |       |
| LHL08□332J          | 3300.0                              |   | 0.85        | 8.5  | 0.14                                      |   |  |       |
| LHL08□392J          | 3900.0                              |   | 0.78        | 9.7  | 0.11                                      |   |  |       |
| LHL08□472J          | 4700.0                              |   | 65.0        | 0.68   | 14.0                                      |   | 0.10   |       |
| LHL08□562J          | 5600.0                              | 0.62                                      |             | 16.0   | 0.093                                     |   |  |       |
| LHL08□682J          | 6800.0                              | 0.61                                      |             | 18.0   | 0.092                                     |   |  |       |
| LHL08□822J          | 8200.0                              | 0.60                                      |             | 20.0   | 0.084                                     |   |  |       |
| LHL08□103J          | 10000.0                             | 60.0                                      | 0.48        | 32.0   | 0.070                                     | L:1kHz<br>Q:0.0796                        |  |       |
| LHL08□123J          | 12000.0                             |   | 0.44        | 36.0   | 0.064                                     |   |  |       |
| LHL08□153J          | 15000.0                             |   | 0.35        | 62.0   | 0.051                                     |   |  |       |
| LHL08□183J          | 18000.0                             |   | 0.30        | 72.0   | 0.048                                     |   |  |       |
| LHL08□223J          | 22000.0                             |   | 0.28        | 82.0   | 0.044                                     |   |  |       |
| LHL08□273J          | 27000.0                             |   | 0.25        | 90.0   | 0.042                                     |   |  |       |
| LHL08□333J          | 33000.0                             |   | 0.23        | 100.0  | 0.040                                     |   |  |       |

形名の□には包装記号(TB：テーピング, NB：単品)が入ります。

□ Please specify the packaging code.(TB : Taping, NB : Bulk)

LHL10

| 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.) | 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>[A]<br>(max.) | 測定<br>周波数<br>Measuring<br>frequency<br>[MHz] |                    |
|---------------------|-------------------------------------|---|-------------|--|---|---|--|--------------------|
| LHL10□3R3M          | 3.3                                 | ±20%                                      | 50.0        | 46.0   | 0.019                                     | 4.2                                       | 7.96   |                    |
| LHL10□3R9M          | 3.9                                 |   |             | 40.0   | 0.022                                     | 4.1                                       |  |                    |
| LHL10□4R7M          | 4.7                                 |   |             | 38.0   | 0.024                                     | 4.0                                       |  |                    |
| LHL10□5R6M          | 5.6                                 |   |             | 34.0   | 0.025                                     | 3.8                                       |  |                    |
| LHL10□6R8M          | 6.8                                 |   |             | 30.0   | 0.028                                     | 3.4                                       |  |                    |
| LHL10□8R2M          | 8.2                                 |   |             | 24.0   | 0.031                                     | 3.3                                       |  |                    |
| LHL10□100K          | 10.0                                | ±10%                                      | 90.0        | 19.0   | 0.034                                     | 3.2                                       | 2.52   |                    |
| LHL10□120K          | 12.0                                |   |             | 16.0   | 0.038                                     | 2.8                                       |  |                    |
| LHL10□150K          | 15.0                                |   |             | 12.0   | 0.042                                     | 2.6                                       |  |                    |
| LHL10□180K          | 18.0                                |   | 60.0        | 9.2  | 0.046                                     | 2.4                                       |  |                    |
| LHL10□220K          | 22.0                                |   |             | 8.6  | 0.061                                     | 2.1                                       |  |                    |
| LHL10□270K          | 27.0                                |   |             | 7.1  | 0.069                                     | 2.0                                       |  |                    |
| LHL10□330K          | 33.0                                |   | 50.0        | 6.8  | 0.078                                     | 1.9                                       |  |                    |
| LHL10□390K          | 39.0                                |   |             | 6.7  | 0.085                                     | 1.8                                       |  |                    |
| LHL10□470K          | 47.0                                |   |             | 6.2  | 0.093                                     | 1.7                                       |  |                    |
| LHL10□560K          | 56.0                                |   | 40.0        | 50.0   | 5.2                                       | 0.10                                      |  | 1.6                |
| LHL10□680K          | 68.0                                |   |             |  | 4.9                                       | 0.12                                      |  | 1.5                |
| LHL10□820K          | 82.0                                |   |             |  | 4.7                                       | 0.13                                      |  | 1.4                |
| LHL10□101K          | 100.0                               |   |             | 30.0   | 3.8                                       | 0.18                                      |  | 1.2                |
| LHL10□121K          | 120.0                               |   |             |  | 3.2                                       | 0.25                                      |  | 1.0                |
| LHL10□151K          | 150.0                               |   |             |  | 2.9                                       | 0.29                                      |  | 0.95               |
| LHL10□181K          | 180.0                               |   |             | 30.0   | 2.6                                       | 0.40                                      |  | 0.80               |
| LHL10□221K          | 220.0                               |   |             |  | 2.3                                       | 0.44                                      |  | 0.75               |
| LHL10□271K          | 270.0                               |   |             |  | 2.1                                       | 0.50                                      |  | 0.70               |
| LHL10□331K          | 330.0                               | 2.0                                       |             |  | 0.56                                      | 0.68                                      |  |                    |
| LHL10□391K          | 390.0                               | 30.0                                      | 1.8         | 0.62   | 0.63                                      |   |  |                    |
| LHL10□471K          | 470.0                               |   | 1.7         | 0.84   | 0.57                                      |   |  |                    |
| LHL10□561K          | 560.0                               |   | 1.5         | 0.93   | 0.52                                      |   |  |                    |
| LHL10□681K          | 680.0                               |   | 1.4         | 1.0  | 0.48                                      |   |  |                    |
| LHL10□821K          | 820.0                               | 1.3                                       | 1.4         | 0.42   |   |   |  |                    |
| LHL10□102J          | 1000.0                              | ±5%                                       | 50.0        | 1.2  | 1.8                                       | 0.41                                      | 0.252  |                    |
| LHL10□122J          | 1200.0                              |   |             | 0.87   | 2.3                                       | 0.33                                      |  |                    |
| LHL10□152J          | 1500.0                              |   |             | 0.83   | 2.7                                       | 0.30                                      |  |                    |
| LHL10□182J          | 1800.0                              |   |             | 0.75   | 3.0                                       | 0.29                                      |  |                    |
| LHL10□222J          | 2200.0                              |   |             | 0.70   | 3.9                                       | 0.25                                      |  |                    |
| LHL10□272J          | 2700.0                              |   |             | 0.67   | 4.3                                       | 0.24                                      |  |                    |
| LHL10□332J          | 3300.0                              |   |             | 0.56   | 5.8                                       | 0.21                                      |  |                    |
| LHL10□392J          | 3900.0                              |   |             | 0.54   | 6.4                                       | 0.20                                      |  |                    |
| LHL10□472J          | 4700.0                              |   |             | 0.49   | 7.1                                       | 0.19                                      |  |                    |
| LHL10□562J          | 5600.0                              |   |             | 0.41   | 9.0                                       | 0.17                                      |  |                    |
| LHL10□682J          | 6800.0                              |   |             | 0.38   | 10.0                                      | 0.16                                      |  |                    |
| LHL10□822J          | 8200.0                              |   |             | 0.36   | 12.0                                      | 0.15                                      |  |                    |
| LHL10□103J          | 10000.0                             |   | 60.0        | 40.0   | 0.29                                      | 19.0                                      | 0.12   | L:1kHz<br>Q:0.0796 |
| LHL10□123J          | 12000.0                             |   |             |  | 0.27                                      | 21.0                                      | 0.11   |                    |
| LHL10□153J          | 15000.0                             |   |             |  | 0.24                                      | 34.0                                      | 0.090  |                    |
| LHL10□183J          | 18000.0                             |   |             |  | 0.21                                      | 38.0                                      | 0.081  |                    |
| LHL10□223J          | 22000.0                             |   |             |  | 0.20                                      | 43.0                                      | 0.075  |                    |
| LHL10□273J          | 27000.0                             |   |             |  | 0.15                                      | 67.0                                      | 0.060  |                    |
| LHL10□333J          | 33000.0                             |   | 30.0        | 30.0   | 0.14                                      | 76.0                                      | 0.056  | L:1kHz<br>Q:0.0252 |
| LHL10□393J          | 39000.0                             |   |             |  | 0.13                                      | 84.0                                      | 0.053  |                    |
| LHL10□473J          | 47000.0                             |   |             |  | 0.12                                      | 96.0                                      | 0.050  |                    |
| LHL10□563J          | 56000.0                             |   |             |  | 0.10                                      | 170.0                                     | 0.036  |                    |
| LHL10□683J          | 68000.0                             |   | 30.0        | 30.0   | 0.095                                     | 200.0                                     | 0.035  |                    |
| LHL10□823J          | 82000.0                             |   |             |  | 0.088                                     | 210.0                                     | 0.033  |                    |
| LHL10□104J          | 100000.0                            | 0.085                                     |             |  | 240.0                                     | 0.031                                     |  |                    |
| LHL10□124J          | 120000.0                            | 0.070                                     |             |  | 260.0                                     | 0.030                                     |  |                    |
| LHL10□154J          | 150000.0                            | 0.069                                     | 300.0       | 0.028  |   |   |  |                    |

形名の□には包装記号(TB：テーピング, NB：単品)が入ります。

□ Please specify the packaging code.(TB：Taping, NB：Bulk)

LHL13

| 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.) | 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>[A]<br>(max.) | 測定<br>周波数<br>Measuring<br>frequency<br>[MHz] |
|---------------------|-------------------------------------|---|-------------|--|---|---|--|
| LHL13□100K          | 10.0                                | ±10%                                      | 140.0       | 19.0   | 0.023                                     | 4.5                                       | 2.52   |
| LHL13□150K          | 15.0                                |   |             | 12.0   | 0.028                                     | 4.0                                       |  |
| LHL13□220K          | 22.0                                |   | 100.0       | 7.6  | 0.035                                     | 3.4                                       |  |
| LHL13□330K          | 33.0                                |   |             | 6.9  | 0.043                                     | 3.2                                       |  |
| LHL13□470K          | 47.0                                |   |             | 5.6  | 0.052                                     | 2.8                                       |  |
| LHL13□680K          | 68.0                                |   | 4.4         | 0.070  | 2.4                                       | 0.796                                     |  |
| LHL13□101K          | 100.0                               |   | 50.0        | 3.3  | 0.12                                      |   | 2.0  |
| LHL13□151K          | 150.0                               |   |             | 2.6  | 0.19                                      |   | 1.5  |
| LHL13□221K          | 220.0                               |   | 40.0        | 2.2  | 0.23                                      |   | 1.3  |
| LHL13□331K          | 330.0                               |   |             | 30.0   | 1.8                                       |   | 0.35   |
| LHL13□471K          | 470.0                               | 1.5                                       |             |  | 0.43                                      | 0.90                                      |  |
| LHL13□681K          | 680.0                               | ±5%                                       | 40.0        | 1.2  | 0.61                                      | 0.80                                      | 0.252  |
| LHL13□102J          | 1000.0                              |   |             | 1.0  | 1.2                                       | 0.60                                      |  |
| LHL13□152J          | 1500.0                              |   |             | 0.83   | 1.8                                       | 0.45                                      |  |
| LHL13□222J          | 2200.0                              |   |             | 0.70   | 2.2                                       | 0.40                                      |  |
| LHL13□332J          | 3300.0                              |   | 0.60        | 3.4  | 0.33                                      |   |  |
| LHL13□472J          | 4700.0                              |   | 0.43        | 4.7  | 0.28                                      |   |  |
| LHL13□682J          | 6800.0                              |   | 0.38        | 5.6  | 0.25                                      |   |  |
| LHL13□103J          | 10000.0                             | 70.0                                      | 0.30        | 10   | 0.19                                      | L:1kHz<br>Q:0.0796MHz                     |  |

形名の□には包装記号(TB：テーピング, NB：単品)が入ります。

□ Please specify the packaging code.(TB：Taping, NB：Bulk)

LHL16

| 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.) | 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>[A]<br>(max.) | 測定<br>周波数<br>Measuring<br>frequency<br>[MHz] |       |
|---------------------|-------------------------------------|---|-------------|--|---|---|--|-------|
| LHL16□470K          | 47.0                                | ±10%                                      | 70.0        | 4.5  | 0.046                                     | 3.7                                       | 2.52   |       |
| LHL16□680K          | 68.0                                |   |             | 3.9  | 0.054                                     | 3.3                                       |  |       |
| LHL16□101K          | 100.0                               |   | 60.0        | 2.7  | 0.077                                     | 2.9                                       | 0.796  |       |
| LHL16□151K          | 150.0                               |   |             | 2.3  | 0.11                                      | 2.4                                       |  |       |
| LHL16□221K          | 220.0                               |   |             | 1.9  | 0.15                                      | 2.0                                       |  |       |
| LHL16□331K          | 330.0                               |   | 40.0        | 30.0   | 1.6                                       | 0.21                                      | 1.5  | 0.252 |
| LHL16□471K          | 470.0                               |   |             |  | 1.4                                       | 0.28                                      | 1.3  |       |
| LHL16□681K          | 680.0                               | ±5%                                       | 20.0        | 1.2  | 0.35                                      | 1.1                                       | 0.252  |       |
| LHL16□102J          | 1000.0                              |   |             | 0.84   | 0.74                                      | 0.86                                      |  |       |
| LHL16□152J          | 1500.0                              |   |             | 0.69   | 0.93                                      | 0.75                                      |  |       |
| LHL16□222J          | 2200.0                              |   | 0.56        | 1.4  | 0.60                                      |   |  |       |
| LHL16□332J          | 3300.0                              |   | 0.49        | 2.2  | 0.50                                      |   |  |       |
| LHL16□472J          | 4700.0                              |   | 0.41        | 2.6  | 0.40                                      |   |  |       |
| LHL16□682J          | 6800.0                              | 0.35                                      | 3.9         | 0.33   | L:1kHz<br>Q:0.0796MHz                     |   |  |       |
| LHL16□103J          | 10000.0                             | 70.0                                      | 0.26        | 7.3  |   | 0.25                                      |  |       |

形名の□には包装記号(TB：テーピング, NB：単品)が入ります。

□ Please specify the packaging code.(TB：Taping, NB：Bulk)



LHF15BB

| 形名<br>Ordering code | 公称<br>インダクタンス<br>Inductance<br>[μH] | L測定<br>周波数<br>L Measuring<br>frequency | インダクタンス<br>許容差<br>Inductance<br>Tolerance | Q<br>(min.) | 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>[A]<br>(max.) | Q<br>測定周波数<br>Q Measuring<br>frequency<br>[MHz] |      |      |       |
|---------------------|-------------------------------------|--|---|-------------|--|---|---|---|------|------|-------|
| LHF15BB470K         | 47.0                                | 1kHz                                   | ±10%                                      | 40.0        | 4.2  | 0.050                                     | 4.2                                       | 2.52  |      |      |       |
| LHF15BB560K         | 56.0                                |  |   |             | 4.1  | 0.056                                     | 3.8                                       |   |      |      |       |
| LHF15BB680K         | 68.0                                |  |   |             | 3.5  | 0.065                                     | 3.5                                       |   |      |      |       |
| LHF15BB820K         | 82.0                                |  |   | 25.0        | 3.0  | 0.080                                     | 3.2                                       | 0.796   |      |      |       |
| LHF15BB101K         | 100.0                               |  |   |             | 50.0   | 2.9                                       | 0.095                                     |   | 2.9  |      |       |
| LHF15BB121K         | 120.0                               |  |   | 2.7         |  | 0.10                                      | 2.7                                       |   |      |      |       |
| LHF15BB151K         | 150.0                               |  |   | 2.3         |  | 0.13                                      | 2.5                                       |   |      |      |       |
| LHF15BB181K         | 180.0                               |  |   | 30.0        | 2.1  | 0.15                                      | 2.3                                       |   |      |      |       |
| LHF15BB221K         | 220.0                               |  |   |             | 1.8  | 0.19                                      | 2.0                                       |   |      |      |       |
| LHF15BB271K         | 270.0                               |  |   |             | 1.7  | 0.20                                      | 1.8                                       |   |      |      |       |
| LHF15BB331K         | 330.0                               |  |   |             | 1.6  | 0.28                                      | 1.6                                       |   |      |      |       |
| LHF15BB391K         | 390.0                               |  |   | 20.0        | 1.4  | 0.37                                      | 1.4                                       |   |      |      |       |
| LHF15BB471K         | 470.0                               |  |   |             | 1.3  | 0.40                                      | 1.3                                       |   |      |      |       |
| LHF15BB561K         | 560.0                               |  |   | 15.0        | 1.3  | 0.46                                      | 1.2                                       |   |      |      |       |
| LHF15BB681K         | 680.0                               |  |   |             | 1.0  | 0.62                                      | 1.1                                       |   |      |      |       |
| LHF15BB821K         | 820.0                               |  |   | 5.0         | 0.92   | 0.70                                      | 1.0                                       |   |      |      |       |
| LHF15BB102J         | 1000.0                              |  |   | ±5%         | ±5%  | 20.0                                      | 1.0                                       |   | 0.67 | 0.95 | 0.252 |
| LHF15BB122J         | 1200.0                              |  |   |             |  |   | 0.90                                      |   | 0.75 | 0.85 |       |
| LHF15BB152J         | 1500.0                              |  |   |             |  |   | 0.75                                      |   | 1.1  | 0.75 |       |
| LHF15BB182J         | 1800.0                              |  |   |             |  |   | 0.72                                      |   | 1.2  | 0.67 |       |
| LHF15BB222J         | 2200.0                              | 0.65                                   | 1.4                                       |             |  |   | 0.60                                      |   |      |      |       |
| LHF15BB272J         | 2700.0                              | 0.52                                   | 1.9                                       |             |  |   | 0.55                                      |   |      |      |       |
| LHF15BB332J         | 3300.0                              | 15.0                                   | 0.50                                      |             |  | 2.2                                       | 0.50                                      |   |      |      |       |
| LHF15BB392J         | 3900.0                              |  | 0.48                                      |             |  | 2.4                                       | 0.45                                      |   |      |      |       |
| LHF15BB472J         | 4700.0                              |  | 0.44                                      |             |  | 2.8                                       | 0.40                                      |   |      |      |       |
| LHF15BB562J         | 5600.0                              | 70.0                                   | 0.39                                      |             |  | 3.7                                       | 0.36                                      |   |      |      |       |
| LHF15BB682J         | 6800.0                              |  | 0.37                                      |             |  | 4.3                                       | 0.33                                      |   |      |      |       |
| LHF15BB822J         | 8200.0                              |  | 0.30                                      |             |  | 5.7                                       | 0.30                                      |   |      |      |       |
| LHF15BB103J         | 10000.0                             | 0.28                                   | 6.6                                       |             |  | 0.25                                      | 0.0796                                    |   |      |      |       |

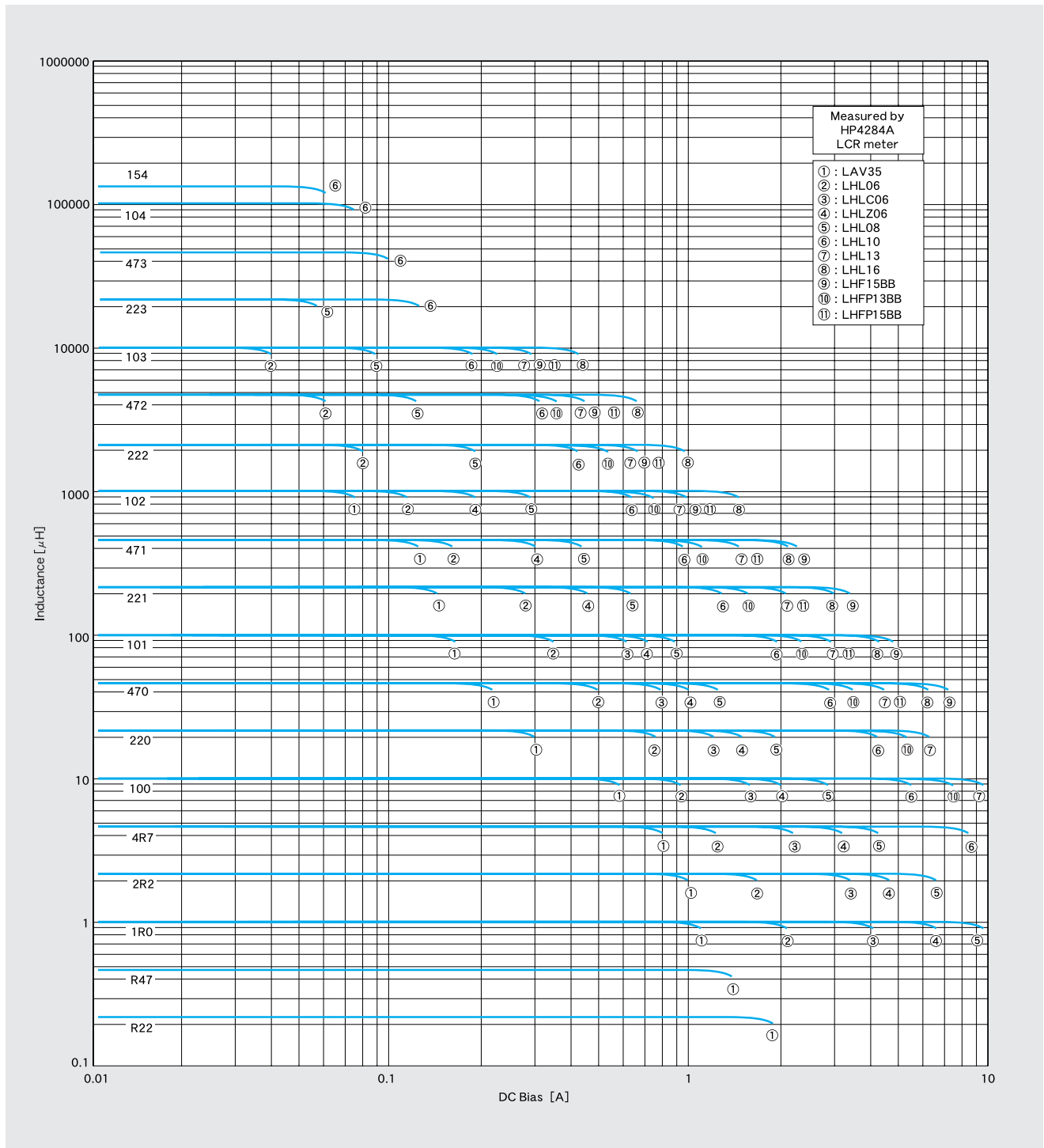
LHFP13BB

| 形名<br>Ordering code | 公称<br>インダクタンス<br>Nominal<br>Inductance<br>[H] | L測定<br>周波数<br>L Measuring<br>frequency | インダクタンス<br>許容差<br>Inductance<br>Tolerance<br>[%] | 直流抵抗<br>DC<br>Resistance<br>[Ω]<br>(max.) | 自己共振<br>周波数<br>Self-resonant<br>frequency<br>[MHz]<br>(min.) | 定格電流<br>Rated<br>current<br>[A]<br>(max.) |
|---------------------|---|--|--|---|--|---|
| LHFP13BB100M        | 10μ   | 1kHz                                   | ±20  | 0.024                                     | 22.0   | 4.4                                       |
| LHFP13BB150M        | 15μ   |  |  | 0.030                                     | 16.0   | 4.0                                       |
| LHFP13BB220M        | 22μ   |  |  | 0.033                                     | 9.7  | 3.6                                       |
| LHFP13BB330M        | 33μ   |  |  | 0.040                                     | 7.6  | 3.2                                       |
| LHFP13BB470K        | 47μ   |  |  | 0.058                                     | 4.4  | 2.6                                       |
| LHFP13BB680K        | 68μ   |  | 0.10   | 4.2                                       | 1.9  |   |
| LHFP13BB101K        | 100μ  |  | 0.15   | 2.6                                       | 1.6  |   |
| LHFP13BB151K        | 150μ  |  | 0.19   | 2.0                                       | 1.4  |   |
| LHFP13BB221K        | 220μ  |  | 0.30   | 1.7                                       | 1.1  |   |
| LHFP13BB331K        | 330μ  |  | 0.49   | 1.3                                       | 0.84   |   |
| LHFP13BB471K        | 470μ  |  | 0.58   | 1.1                                       | 0.77   |   |
| LHFP13BB681K        | 680μ  |  | 0.93   | 0.90                                      | 0.60   |   |
| LHFP13BB102K        | 1.0m  |  | 1.4  | 0.78                                      | 0.50   |   |
| LHFP13BB152K        | 1.5m  |  | 2.3  | 0.50                                      | 0.38   |   |
| LHFP13BB222K        | 2.2m  |  | 2.9  | 0.42                                      | 0.34   |   |
| LHFP13BB332K        | 3.3m  |  | 4.2  | 0.38                                      | 0.28   |   |
| LHFP13BB472K        | 4.7m  |  | 6.2  | 0.28                                      | 0.23   |   |
| LHFP13BB682K        | 6.8m  |  | 9.7  | 0.22                                      | 0.18   |   |
| LHFP13BB103K        | 10m   |  | 12.0   | 0.19                                      | 0.16   |   |

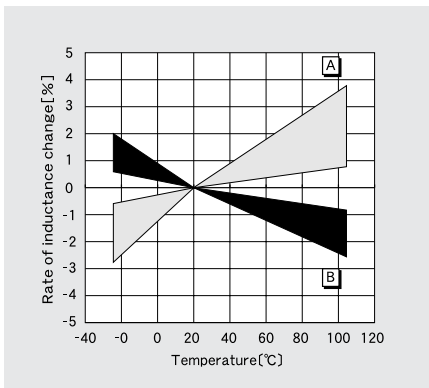
LHFP15BB

| 形名<br>Ordering code | 公称<br>インダクタンス<br>Nominal<br>Inductance<br>[H] | L測定<br>周波数<br>L Measuring<br>frequency | インダクタンス<br>許容差<br>Inductance<br>Tolerance<br>[%] | 直流抵抗<br>DC<br>Resistance<br>[Ω]<br>(max.) | 自己共振<br>周波数<br>Self-resonant<br>frequency<br>[MHz]<br>(min.) | 定格電流<br>Rated<br>current<br>[A]<br>(max.) |
|---------------------|---|--|--|---|--|---|
| LHFP15BB470K        | 47μ   | 1kHz                                   | ±10  | 0.044                                     | 8.5  | 3.3                                       |
| LHFP15BB680K        | 68μ   |  |  | 0.055                                     | 3.8  | 2.9                                       |
| LHFP15BB101K        | 100μ  |  |  | 0.075                                     | 2.4  | 2.5                                       |
| LHFP15BB151K        | 150μ  |  |  | 0.13                                      | 2.0  | 1.9                                       |
| LHFP15BB221K        | 220μ  |  |  | 0.20                                      | 1.3  | 1.6                                       |
| LHFP15BB331K        | 330μ  |  |  | 0.30                                      | 0.93   | 1.3                                       |
| LHFP15BB471K        | 470μ  |  |  | 0.36                                      | 0.87   | 1.1                                       |
| LHFP15BB681K        | 680μ  |  |  | 0.56                                      | 0.66   | 0.90                                      |
| LHFP15BB102K        | 1.0m  |  |  | 0.70                                      | 0.55   | 0.80                                      |
| LHFP15BB152K        | 1.5m  |  |  | 1.2                                       | 0.44   | 0.62                                      |
| LHFP15BB222K        | 2.2m  |  |  | 1.9                                       | 0.33   | 0.50                                      |
| LHFP15BB332K        | 3.3m  |  |  | 2.3                                       | 0.28   | 0.45                                      |
| LHFP15BB472K        | 4.7m  |  |  | 3.5                                       | 0.23   | 0.36                                      |
| LHFP15BB682K        | 6.8m  |  |  | 5.4                                       | 0.16   | 0.28                                      |
| LHFP15BB103K        | 10m   |  |  | 6.7                                       | 0.14   | 0.25                                      |

直流重畳特性例 DC Bias characteristics



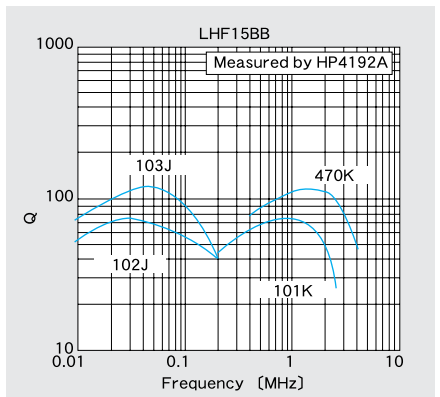
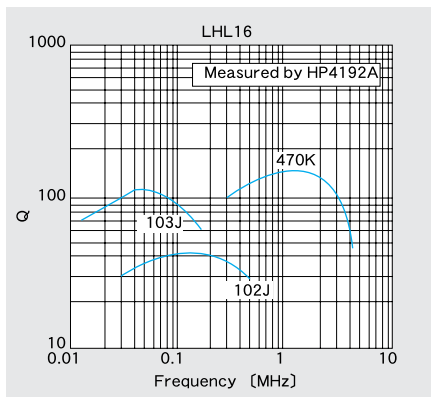
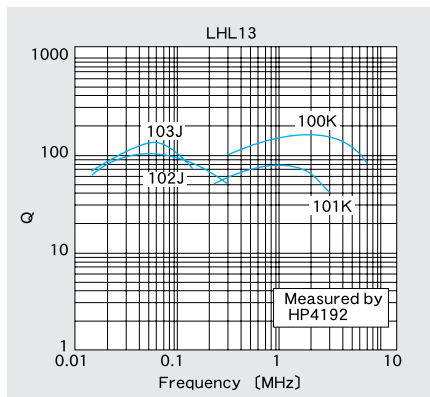
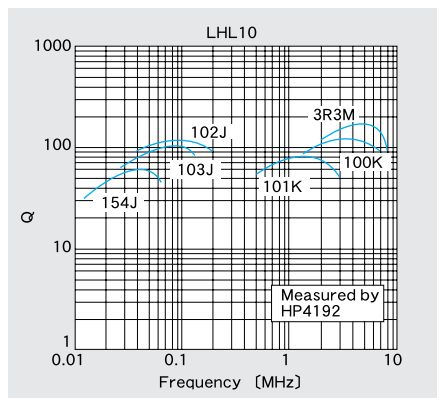
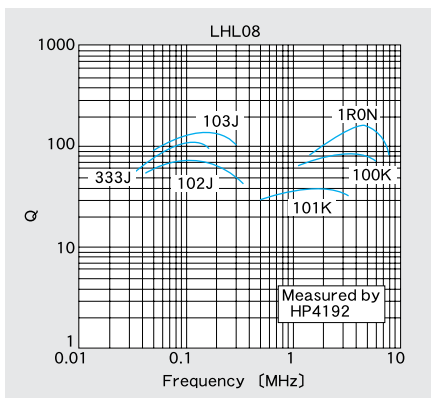
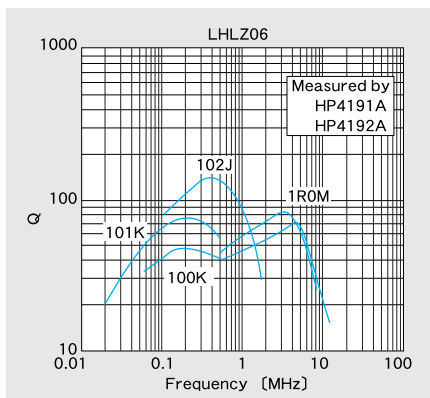
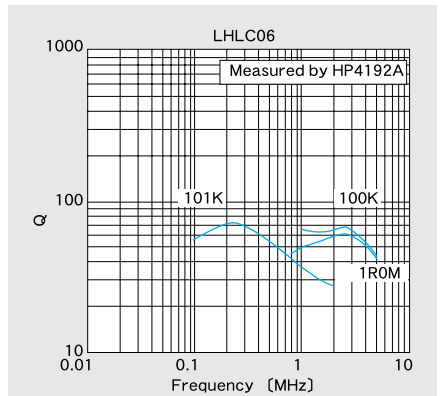
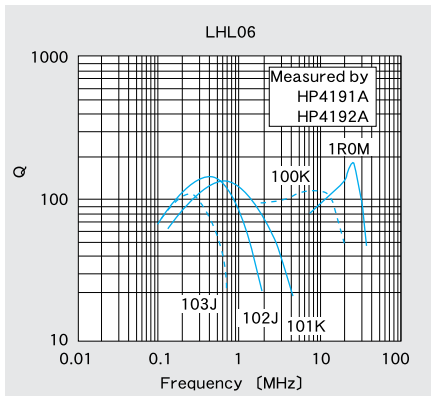
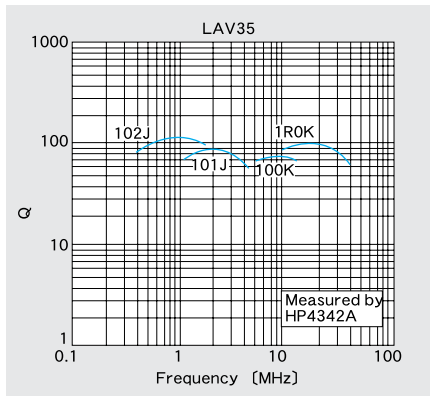
インダクタンス温度特性例 Temperature characteristics



**A** : LAV35  
 LHL06(120K~103J)  
 LHLC06  
 LHLZ06  
 LHL08  
 LHL10  
 LHL13  
 LHL16  
 LHF15BB  
 LHFP13BB  
 LHFP15BB

**B** : LHL 06(1R0M~100K)

Q-周波数特性例 Q-vs-Frequency characteristics

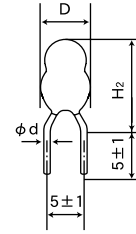


①標準数量 Standard quantity

| 形式(EIA)<br>Type | 標準数量(pcs)<br>Standard quantity |             |                |
|-----------------|--------------------------------|-------------|----------------|
|                 | 箱づめ<br>Box                     | 袋づめ<br>Bulk | テーピング<br>Taped |
| LAVC35          | —                              | —           | 2000           |
| LHLC06          | —                              | 500         | 2000           |
| LHLC06          | —                              | 500         | 2000           |
| LHLZ06          | —                              | 500         | 1500           |
| LHLC08          | —                              | 100         | 1000           |
| LHLC10          | —                              | 050         | 500            |
| LHLC13          | —                              | 025         | 500            |
| LHLC16          | 500                            | —           | 250            |
| LHFC15BB        | 500                            | —           | —              |
| LHFP13BB        | 500                            | —           | —              |
| LHFP15BB        | 500                            | —           | —              |

②製品単品寸法 Bulk dimensions

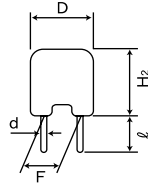
LHL06/LHLC06/LHLZ06



| 形式<br>Type | 寸法 Dimensions(mm)    |                       |                            |
|------------|----------------------|-----------------------|----------------------------|
|            | φD                   | H <sub>2</sub>        | φd                         |
| LHLC06     | 6.8max<br>(0.268max) | 11.0max<br>(0.433max) | 00.6±0.05<br>(0.024±0.002) |
| LHLC06     | 7.5max<br>(0.295max) | 11.0max<br>(0.433max) | 00.6±0.05<br>(0.024±0.002) |
| LHLZ06     | 7.8max<br>(0.307max) | 11.0max<br>(0.433max) | 00.6±0.05<br>(0.024±0.002) |

Unit : mm(inch)

LHL08~16



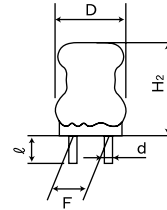
| 形式<br>Type | 寸法 Dimensions(mm) |                      |                          |                          |                            |
|------------|-------------------|----------------------|--------------------------|--------------------------|----------------------------|
|            | φD(max)           | H <sub>2</sub> (max) | F*                       | ℓ                        | d                          |
| LHLC08     | 09.0<br>(0.354)   | 09.5<br>(0.374)      | 5.0±1.0<br>(0.197±0.039) | 5.0±1.0<br>(0.197±0.039) | 00.6±0.05<br>(0.024±0.002) |
| LHLC10     | 11.0<br>(0.433)   | 14.0<br>(0.551)      | 5.0±1.0<br>(0.197±0.039) | 5.0±1.0<br>(0.197±0.039) | 00.6±0.05<br>(0.024±0.002) |
| LHLC13     | 14.0<br>(0.551)   | 17.0<br>(0.669)      | 7.5±1.0<br>(0.295±0.039) | 5.0±1.0<br>(0.197±0.039) | 00.8±0.05<br>(0.031±0.002) |
| LHLC16     | 17.0<br>(0.669)   | 21.0<br>(0.827)      | 7.5±1.0<br>(0.295±0.039) | 5.0±1.0<br>(0.197±0.039) | 00.8±0.05<br>(0.031±0.002) |

\*リード端子根本(接着部)寸法とする。

Unit : mm(inch)

\*Measured at the base of the leads.

LHF15BB



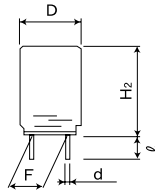
| 形式<br>Type | 寸法 Dimensions(mm) |                      |                            |                          |                          |
|------------|-------------------|----------------------|----------------------------|--------------------------|--------------------------|
|            | φD(max)           | H <sub>2</sub> (max) | F*                         | ℓ                        | d                        |
| LHFC15BB   | 18.0<br>(0.709)   | 23.0<br>(0.906)      | 10.0±1.00<br>(0.394±0.039) | 5.0±1.0<br>(0.197±0.039) | 1.0±1.0<br>(0.039±0.039) |

\*リード端子根本(接着部)寸法とする。

Unit : mm(inch)

\*Measured at the base of the leads.

LHFP13BB



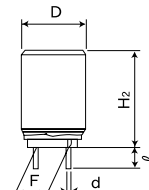
| 形式<br>Type | 寸法 Dimensions(mm) |                      |                           |                          |                           |
|------------|-------------------|----------------------|---------------------------|--------------------------|---------------------------|
|            | φD(max)           | H <sub>2</sub> (max) | F*                        | ℓ                        | d                         |
| LHFP13BB   | 14.5<br>(0.571)   | 20.0<br>(0.788)      | 7.5±1.00<br>(0.295±0.039) | 5.0±1.0<br>(0.197±0.039) | 0.8±0.05<br>(0.031±0.002) |

\*リード端子根本寸法とする。

Unit : mm(inch)

\*Measured at the base of the leads.

LHFP15BB



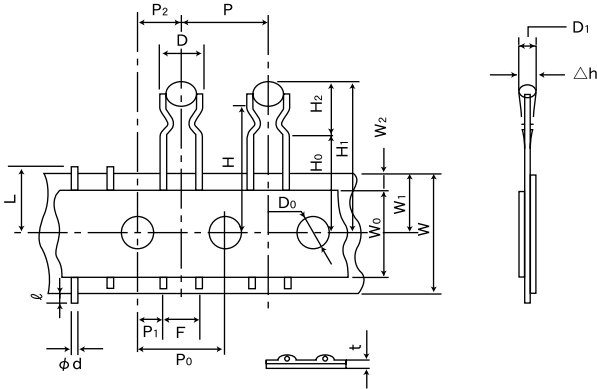
| 形式<br>Type | 寸法 Dimensions(mm) |                      |                           |                          |                           |
|------------|-------------------|----------------------|---------------------------|--------------------------|---------------------------|
|            | φD(max)           | H <sub>2</sub> (max) | F*                        | ℓ                        | d                         |
| LHFP15BB   | 16.0<br>(0.630)   | 23.0<br>(0.906)      | 7.5±1.00<br>(0.295±0.039) | 5.0±1.0<br>(0.197±0.039) | 0.8±0.05<br>(0.031±0.002) |

\*リード端子根本寸法とする。

Unit : mm(inch)

\*Measured at the base of the leads.

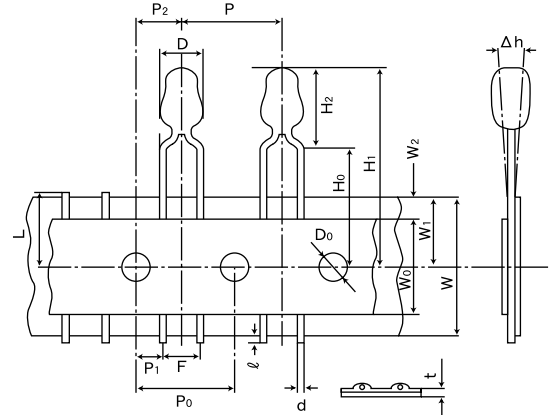
③テーピング寸法 Taping dimensions  
 ・LAV35VB



| 形式<br>Type | 記号<br>Symbol   | 寸法<br>Dimensions                          | 記号<br>Symbol   | 寸法<br>Dimensions   |
|------------|--|---|----------------|--|
| LAV35 VB   | D  | 6.0max<br>(0.236max)                      | $\Delta h$     | 0.0±2.0<br>(0.0±0.079)                                   |
|            | D <sub>1</sub>   | 4.0max<br>(0.157max)                      | W              | 18.0±1.0<br>(0.709 <sup>+0.039</sup> <sub>-0.020</sub> ) |
|            | H <sub>1</sub>   | 25.0max<br>(0.984max)                     | W <sub>0</sub> | 12.5min<br>(0.492min)                                    |
|            | H <sub>2</sub>   | 8.0max<br>(0.315max)                      | W <sub>1</sub> | 9.0±0.15<br>(0.354 <sup>+0.030</sup> <sub>-0.020</sub> ) |
|            | H  | 19.0(参考値 Ref.)<br>(0.748)                 | W <sub>2</sub> | 3.0max <sup>**2</sup><br>(0.118max)                      |
|            | H <sub>0</sub>   | 16.0±1.08<br>(0.630±0.039)                | $\ell$         | 2.0max<br>(0.079max)                                     |
|            | P  | 12.7±1.08<br>(0.500±0.039)                | D <sub>0</sub> | 4.0±0.3<br>(0.157±0.012)                                 |
|            | P <sub>0</sub>   | 12.7±0.38 <sup>**1</sup><br>(0.500±0.012) | $\phi d$       | 0.50±0.05<br>(0.020±0.002)                               |
|            | P <sub>1</sub>   | 3.85±0.58<br>(0.152±0.020)                | L              | 11.0max<br>(0.433max)                                    |
|            | P <sub>2</sub>   | 6.35±1.38<br>(0.250±0.051)                | t              | 0.5±0.2<br>(0.020±0.008)                                 |
| F          | 5.0±0.38<br>(0.197 <sup>+0.031</sup> <sub>-0.012</sub> ) |   |                | Unit : mm(inch)  |

※1 20ピッチにつき、累積誤差±1mm以内。  
 ※2 貼付テープは台紙よりはみ出さないこと。  
 ※1 Accumulated error for 20 pitches is ± 1mm.  
 ※2 Bonding tape must not protrude from the base tape.

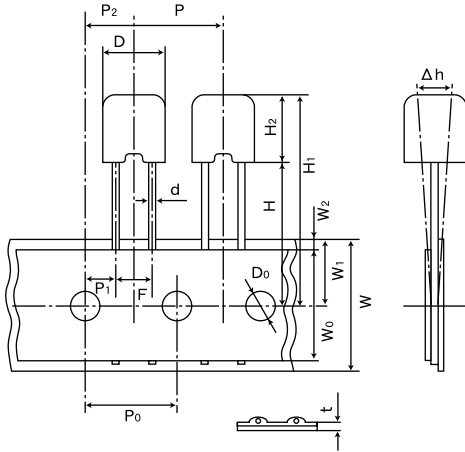
・LHL06/LHLC06/LHLZ06



| 形式<br>Type                 | 記号<br>Symbol   | 寸法<br>Dimensions   | 記号<br>Symbol   | 寸法<br>Dimensions   |
|----------------------------|----------------|--|----------------|--|
| LHL 06<br>LHLC06<br>LHLZ06 | D              | $\phi 6.8(0.268)(L06)$<br>$\phi 7.5(0.295)(LCC6)$<br>$\phi 7.8(0.307)(LZC6)$ | W              | 18.0±1.0<br>(0.709 <sup>+0.039</sup> <sub>-0.020</sub> ) |
|                            | H <sub>1</sub> | 30.0max<br>(1.18max)   | W <sub>0</sub> | 12.5min<br>(0.492min)                                    |
|                            | H <sub>2</sub> | 11.0max<br>(0.433max)  | W <sub>1</sub> | 9.0±0.5<br>(0.354±0.020)                                 |
|                            | H <sub>0</sub> | 16.0±1.06<br>(0.630±0.039)   | W <sub>2</sub> | 3.0max <sup>**2</sup><br>(0.118max)                      |
|                            | P              | 12.7±1.08<br>(0.500±0.039)   | $\ell$         | 2.0max<br>(0.079max)                                     |
|                            | P <sub>0</sub> | 12.7±0.38 <sup>**1</sup><br>(0.500±0.012)                                    | D <sub>0</sub> | $\phi 4.0\pm 0.2\phi$<br>( $\phi 0.157\pm 0.008$ )       |
|                            | P <sub>1</sub> | 3.85±0.78<br>(0.152±0.028)   | d              | 0 $\phi 0.6\pm 0.05\phi$<br>( $\phi 0.024\pm 0.002$ )    |
|                            | P <sub>2</sub> | 6.35±1.38<br>(0.250±0.051)   | L              | 11.0max<br>(0.433max)                                    |
|                            | F              | 5.0±0.38<br>(0.0 <sup>+0.031</sup> <sub>-0.012</sub> )                       | t              | 0.6±0.3<br>(0.024±0.012)                                 |
|                            | $\Delta h$     | 0.0±2.0<br>(0.0±0.079)   |                |  |

※1 20ピッチにつき、累積誤差±1mm以内。  
 ※2 貼付テープは台紙よりはみ出さないこと。  
 ※1 Accumulated error for 20 pitches is ± 1mm.  
 ※2 Bonding tape must not protrude from the base tape.

・LHL08~16



|                | LHL08  | LHL10  | LHL13  | LHL16  |
|----------------|--|--|--|--|
| D              | φ9.0max<br>(φ0.354max)   | φ11.0max<br>(φ0.433max)  | φ14.0max<br>(φ0.551max)  | φ17.0max<br>(φ0.669max)  |
| H <sub>1</sub> | 30.5max<br>(1.20max)   | 34.0max<br>(1.34max)   | 37.0max<br>(1.46max)   | 41.0max<br>(1.61max)   |
| H              | 18.0 <sup>+0.0</sup> <sub>-0.0</sub><br>(0.709 <sup>+0.079</sup> <sub>-0.000</sub> ) | 18.0 <sup>+0.0</sup> <sub>-0.0</sub><br>(0.709 <sup>+0.079</sup> <sub>-0.000</sub> ) | 18.0 <sup>+0.0</sup> <sub>-0.0</sub><br>(0.709 <sup>+0.079</sup> <sub>-0.000</sub> ) | 18.0 <sup>+0.0</sup> <sub>-0.0</sub><br>(0.709 <sup>+0.079</sup> <sub>-0.000</sub> ) |
| H <sub>2</sub> | 9.5max<br>(0.374max)   | 14.0max<br>(0.551max)  | 17.0max<br>(0.669max)  | 21.0max<br>(0.827max)  |
| P              | 12.7±1.07<br>(0.500±0.039)   | 12.7±1.07<br>(0.500±0.039)   | 15.0±1.07<br>(0.591±0.039)   | 30.0±1.07<br>(1.18±0.039)  |
| P <sub>0</sub> | 12.7±0.37 <sup>*1</sup><br>(0.500±0.012)   | 12.7±0.37 <sup>*1</sup><br>(0.500±0.012)   | 15.0±0.37 <sup>*1</sup><br>(0.591±0.012)   | 15.0±0.37 <sup>*1</sup><br>(0.591±0.012)   |
| P <sub>1</sub> | 3.85±0.77<br>(0.152±0.028)   | 3.85±0.77<br>(0.152±0.028)   | 3.75±0.77<br>(0.148±0.028)   | 3.75±0.77<br>(0.148±0.028)   |
| P <sub>2</sub> | 6.35±1.37<br>(0.250±0.051)   | 6.35±1.37<br>(0.250±0.051)   | 7.50±1.37<br>(0.295±0.051)   | 7.50±1.37<br>(0.295±0.051)   |
| F              | 5.0 <sup>+0.5</sup> <sub>-0.2</sub><br>(0.197 <sup>+0.031</sup> <sub>-0.008</sub> )  | 5.0 <sup>+0.5</sup> <sub>-0.2</sub><br>(0.197 <sup>+0.031</sup> <sub>-0.008</sub> )  | 7.50 <sup>+0.5</sup> <sub>-0.2</sub><br>(0.295 <sup>+0.031</sup> <sub>-0.008</sub> ) | 7.50±0.50<br>(0.295±0.020)   |
| h              | 0.0±2.0<br>(0.0±0.079)   | 0.0±2.0<br>(0.0±0.079)   | 0.0±2.0<br>(0.0±0.079)   | 0.0±2.0<br>(0.0±0.079)   |
| W              | 18.0 <sup>+0.5</sup> <sub>-0.5</sub><br>(0.709 <sup>+0.039</sup> <sub>-0.020</sub> ) | 18.0 <sup>+0.5</sup> <sub>-0.5</sub><br>(0.709 <sup>+0.039</sup> <sub>-0.020</sub> ) | 18.0 <sup>+0.5</sup> <sub>-0.5</sub><br>(0.709 <sup>+0.039</sup> <sub>-0.020</sub> ) | 18.0 <sup>+0.5</sup> <sub>-0.5</sub><br>(0.709 <sup>+0.039</sup> <sub>-0.020</sub> ) |
| W <sub>0</sub> | 12.5min<br>(0.492min)  | 12.5min<br>(0.492min)  | 12.5min<br>(0.492min)  | 12.5min<br>(0.492min)  |
| W <sub>1</sub> | 9.0±0.5<br>(0.354±0.020)   | 9.0±0.5<br>(0.354±0.020)   | 9.0±0.5<br>(0.354±0.020)   | 9.0±0.5<br>(0.354±0.020)   |
| W <sub>2</sub> | 3.0max <sup>**2</sup><br>(0.118max)  | 3.0max <sup>**2</sup><br>(0.118max)  | 3.0max <sup>**2</sup><br>(0.118max)  | 3.0max <sup>**2</sup><br>(0.118max)  |
| D <sub>0</sub> | φ4.0±0.2<br>(φ0.158±0.008)   | φ4.0±0.2<br>(φ0.158±0.008)   | φ4.0±0.2<br>(φ0.158±0.008)   | φ4.0±0.2<br>(φ0.158±0.008)   |
| d              | φ70.6±0.05<br>(φ0.024±0.002)   | φ70.6±0.05<br>(φ0.024±0.002)   | 7φ0.8±0.05<br>(φ0.031±0.002)   | 7φ0.8±0.05<br>(φ0.031±0.002)   |
| t              | 0.6±0.3<br>(0.024±0.012)   | 0.6±0.3<br>(0.024±0.012)   | 0.6±0.3<br>(0.024±0.012)   | 0.6±0.3<br>(0.024±0.012)   |

※1 累積ピッチ誤差は20ピッチにつき1mm以内。 Unit : mm(inch)  
 ※2 貼付テープは台紙よりはみ出さないこと。  
 ※1 Accumulated error for 20 pitches is 1mm.  
 ※2 Bonding tape must not protrude from the base tape.

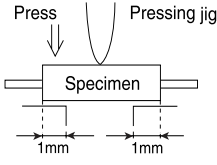




| Item                           | Specified Value                |           |           |                                 |                                |                                |               |                                   | Test Method and Remarks  |
|--------------------------------|--------------------------------|-----------|-----------|---------------------------------|--------------------------------|--------------------------------|---------------|-----------------------------------|--|
|                                | 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<br><table border="1"> <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.    |       |               |                | LA :<br>Apply the stated tensile force progressively in the direction to draw terminal.<br><table border="1"> <tr> <th>force(N)</th> <th>duration(S)</th> </tr> <tr> <td>25</td> <td>5</td> </tr> </table> LHL · LHF · LAV · LHFP :<br>Apply the stated tensile force progressively in the direction to draw terminal.<br><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> FBA :<br>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。<br><br>FL05R□ :<br>Fix the component in the direction to draw terminal, and gradually apply the tensile force of 4.9 N.   | 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.     |   |       |               |                | LHL · LHF · LHFP :<br>Measuring current : Rated current×2<br>Duration : 5min.<br>Number of measuring : one time   |   |                   |                            |                      |   |           |                      |                      |      |   |                      |                            |                      |     |      |                      |   |     |                      |    |     |
| 12. Terminal strength :<br>bending                            | No abnormality such as cut lead, or looseness. |                            |           |  |   |       |               |                | LA :<br>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.<br>Number of bends : Two times.<br><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> LH · FB · LAV :<br>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.<br>Number of bends : Two times.<br><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.                             |   |       |               |                | LHL · LHF :<br>Applied voltage : 500 VDC<br>Duration : 60 sec.  |   |                   |                            |                      |   |           |                      |                      |      |   |                      |                            |                      |     |      |                      |   |     |                      |    |     |
| 14. Insulation resistance :<br>between terminals and core     |  |                            |           |  | 1M $\Omega$ min.<br>(Other than material code MA) |       |               |                | FBA · FBR :<br>Applied voltage : 100 VDC<br>Duration : 60±5 sec.  |   |                   |                            |                      |   |           |                      |                      |      |   |                      |                            |                      |     |      |                      |   |     |                      |    |     |
| 15. Withstanding :<br>between the terminals and body          |  |                            |           | No abnormality such as insulation damage       |   |       |               |                | [LHL□□□, LHF15BB]<br>According to JIS C5102. 7. 1. 3 (C)<br>Metal global method<br>Applied voltage : 500 VDC<br>Duration : 60 sec.  |   |                   |                            |                      |   |           |                      |                      |      |   |                      |                            |                      |     |      |                      |   |     |                      |    |     |

| 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.Resistance 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>According 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>According 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 circumference is covered by new solder. | At least 90% of lead circumference is covered by new solder. |         | At least 75% of lead circumference 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 signifi-<br>cant abnor-<br>mality in ap-<br>pearance<br>Impedance<br>change :<br>Within±20% | P l e a s e<br>avoid the ul-<br>tr a s o n i c<br>cleaning of<br>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<br>after the test.  |      |                 |               |   |                                 |      |   |                  |          |   |                                 |      |   |                  |          |      |                 |               |   |  |      |   |                  |          |   |  |      |   |                  |          |      |                 |               |   |  |      |   |                  |          |   |  |      |   |                  |          |      |                 |               |   |                                 |      |   |                  |          |   |                                 |      |   |                  |          |
| 23. Thermnal shock          | △L/L :<br>Within±10%<br>Q : 30min.                           | △L/L :<br>Within±10%<br>△Q/Q :<br>Within±30% | △L/L :<br>Within±10%<br>Q : 15min. | Appearance :<br>No abnor-<br>mality<br>Inductance<br>change :<br>Within±10%<br>Q change :<br>Within±30% | Appearance :<br>No abnor-<br>mality<br>Impedance<br>change :<br>Within±20%                     | △L/L :<br>Within±10%<br>Q : 20min.   | Refer to<br>individual<br>specifica-<br>tion | Appearance :<br>No abnor-<br>mality<br>Impedance<br>change :<br>Within±20% | LA :<br>Conditions for 1cycle<br><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> <p>Number of cycles : 5 cycles<br/>Recovery : At least 1hr of recovery under the standard<br/>condition after the removal from test chamber,<br/>followed by the measurement within 2hrs.</p> <p>LHL · LHF · FB :<br/>Accoding to JIS C0025<br/>Conditions for 1 cycle<br/> <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<br/>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 oparating<br/>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> <p>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 con-<br/>dition after the removal from the test cfamber.<br/>(LHL□□□, LHF□□BB, LHF15BB)<br/>: 3hrs of recovery under the standard condition af-<br/>ter the removal from the test cfamber.(FBA, FBR)</p> <p>LAV :<br/>Conditions for 1 cycle<br/> <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<br/>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 oparating<br/>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> <p>Number of cycles : 10 cycles<br/>Recovery : At least 1hr of recovery under the standard<br/>condition after the removal from test chamber,<br/>followed by the measurement within 2hrs.</p> <p>FL :<br/>Accoding to JIS C0025<br/>Conditions for 1 cycle<br/> <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> <p>Number of cycles : 10 cycles<br/>Recovery : 1 to 2hrs of recovery under the standard con-<br/>dition after the removal from the test cfamber.</p> </p></p></p> | 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<br>temperature <sup>+0</sup> <sub>-3</sub> | 30±3 | 2 | Room temperature | Within 3 | 3 | Maximum oparating<br>temperature <sup>+2</sup> <sub>-0</sub> | 30±3 | 4 | Room temperature | Within 3 | Step | Temperature(°C) | Duration(min) | 1 | Minimum operating<br>temperature <sup>+0</sup> <sub>-3</sub> | 30±3 | 2 | Room temperature | Within 3 | 3 | Maximum oparating<br>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<br>temperature <sup>+0</sup> <sub>-3</sub> | 30±3   |                                    |   |  |  |  |  |  |      |                 |               |   |                                 |      |   |                  |          |   |                                 |      |   |                  |          |      |                 |               |   |  |      |   |                  |          |   |  |      |   |                  |          |      |                 |               |   |  |      |   |                  |          |   |  |      |   |                  |          |      |                 |               |   |                                 |      |   |                  |          |   |                                 |      |   |                  |          |
| 2                           | Room temperature   | Within 3                                     |                                    |   |  |  |  |  |  |      |                 |               |   |                                 |      |   |                  |          |   |                                 |      |   |                  |          |      |                 |               |   |  |      |   |                  |          |   |  |      |   |                  |          |      |                 |               |   |  |      |   |                  |          |   |  |      |   |                  |          |      |                 |               |   |                                 |      |   |                  |          |   |                                 |      |   |                  |          |
| 3                           | Maximum oparating<br>temperature <sup>+2</sup> <sub>-0</sub> | 30±3   |                                    |   |  |  |  |  |  |      |                 |               |   |                                 |      |   |                  |          |   |                                 |      |   |                  |          |      |                 |               |   |  |      |   |                  |          |   |  |      |   |                  |          |      |                 |               |   |  |      |   |                  |          |   |  |      |   |                  |          |      |                 |               |   |                                 |      |   |                  |          |   |                                 |      |   |                  |          |
| 4                           | Room temperature   | Within 3                                     |                                    |   |  |  |  |  |  |      |                 |               |   |                                 |      |   |                  |          |   |                                 |      |   |                  |          |      |                 |               |   |  |      |   |                  |          |   |  |      |   |                  |          |      |                 |               |   |  |      |   |                  |          |   |  |      |   |                  |          |      |                 |               |   |                                 |      |   |                  |          |   |                                 |      |   |                  |          |
| Step                        | Temperature(°C)  | Duration(min)                                |                                    |   |  |  |  |  |  |      |                 |               |   |                                 |      |   |                  |          |   |                                 |      |   |                  |          |      |                 |               |   |  |      |   |                  |          |   |  |      |   |                  |          |      |                 |               |   |  |      |   |                  |          |   |  |      |   |                  |          |      |                 |               |   |                                 |      |   |                  |          |   |                                 |      |   |                  |          |
| 1                           | Minimum operating<br>temperature <sup>+0</sup> <sub>-3</sub> | 30±3   |                                    |   |  |  |  |  |  |      |                 |               |   |                                 |      |   |                  |          |   |                                 |      |   |                  |          |      |                 |               |   |  |      |   |                  |          |   |  |      |   |                  |          |      |                 |               |   |  |      |   |                  |          |   |  |      |   |                  |          |      |                 |               |   |                                 |      |   |                  |          |   |                                 |      |   |                  |          |
| 2                           | Room temperature   | Within 3                                     |                                    |   |  |  |  |  |  |      |                 |               |   |                                 |      |   |                  |          |   |                                 |      |   |                  |          |      |                 |               |   |  |      |   |                  |          |   |  |      |   |                  |          |      |                 |               |   |  |      |   |                  |          |   |  |      |   |                  |          |      |                 |               |   |                                 |      |   |                  |          |   |                                 |      |   |                  |          |
| 3                           | Maximum oparating<br>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>   |