

# PRODUCT SPECIFICATIONS



## BMDP606050 — SERIE

CUSTOMER'S PRODUCT NAME:

DATE: 2026.06

**SPEC. NO: B-2606-07**

**THIS SPECIFICATION IS:**

- ☐ FULLY ACCEPTED
- ☐ DENIED
- ☐ ACCEPTED UNDER THE FOLLOWING CONDITIONS:

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SIGNATURE:

DATE:

NAME(PRINT):

TITLE:



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TEL: 03-5894-433

FAX: 03-5894-523

## ① Features

 Ultra low buzz noise

 High rated current

 RoHS, Halogen Free

 REACH Compliance

## ② Application

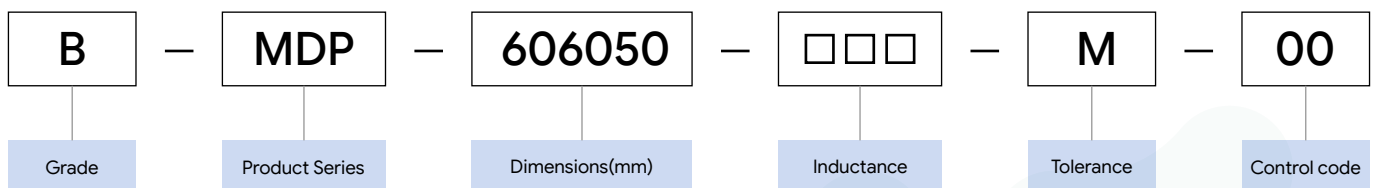
 Laptops and PCs

 Switchs and servers

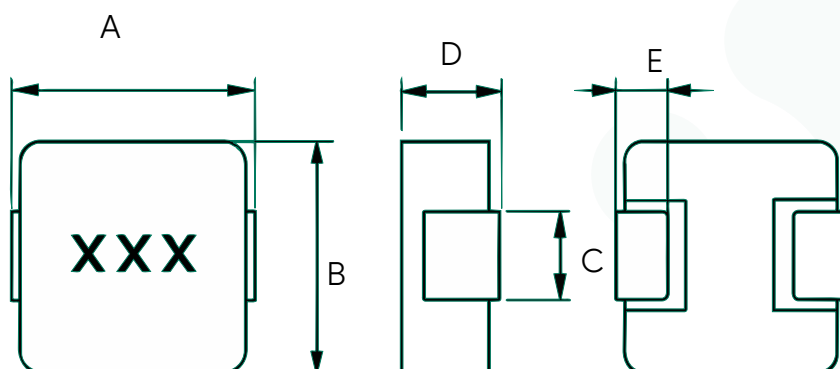
 Base stations

 DC/DC converters

## ③ Part numbering



## ④ Appearance and Dimensions



Dimensions in mm

**A** 7.60Max

**B** 6.60 ± 0.20

**C** 3.00± 0.30

**D** 5.0Max

**E** 1.60± 0.30

## ⑤ Rating

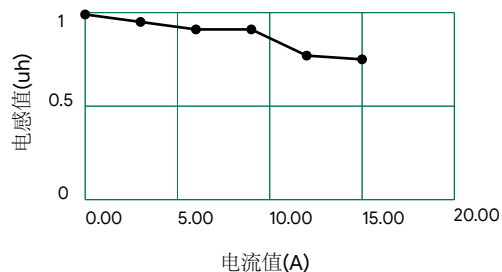
⚠ NOTE Operating Temperature Range : -55 to +125°C

## ELECTRICAL CHARACTERISTICS

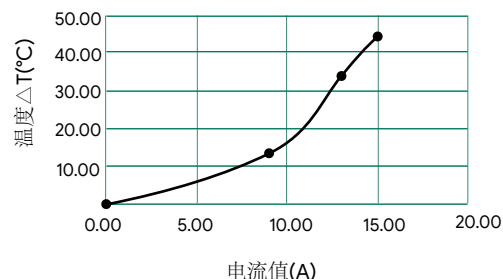
| Part No.         | Inductance Lo<br>(uH)±20% | Test Frequency<br>(Hz/v) | DCR<br>(mΩ)Max | Isat (A)TYP<br>ΔL/L≥-30% | Irms (A) TYP<br>ΔT≤40°C |
|------------------|---------------------------|--------------------------|----------------|--------------------------|-------------------------|
| BMDP6060501ROM00 | 1.0                       | 100KHZ/1V                | 6.0            | 15.0                     | 10.0                    |
| BMDP6060501R5M00 | 1.5                       | 100KHZ/1V                | 11.5           | 10.5                     | 8.0                     |
| BMDP6060502R2M00 | 2.2                       | 100KHZ/1V                | 12.0           | 10.0                     | 7.0                     |
| BMDP6060503R3M00 | 3.3                       | 100KHZ/1V                | 14.5           | 9.0                      | 6.5                     |
| BMDP6060504R7M00 | 4.7                       | 100KHZ/1V                | 20.5           | 8.0                      | 6.0                     |
| BMDP6060505R6M00 | 5.6                       | 100KHZ/1V                | 27.5           | 7.0                      | 5.5                     |
| BMDP6060506R8M00 | 6.8                       | 100KHZ/1V                | 31.0           | 6.5                      | 5.5                     |
| BMDP6060508R2M00 | 8.2                       | 100KHZ/1V                | 42.0           | 6.5                      | 5.0                     |
| BMDP606050100M00 | 10.0                      | 100KHZ/1V                | 48.0           | 6.5                      | 4.5                     |
| BMDP606050150M00 | 15.0                      | 100KHZ/1V                | 74.0           | 5.5                      | 4.0                     |
| BMDP606050220M00 | 22.0                      | 100KHZ/1V                | 105.0          | 4.5                      | 3.0                     |
| BMDP606050330M00 | 33.0                      | 100KHZ/1V                | 190.0          | 2.8                      | 2.3                     |
| BMDP606050470M00 | 47.0                      | 100KHZ/1V                | 256.0          | 2.5                      | 2.2                     |
| BMDP606050680M00 | 68.0                      | 100KHZ/1V                | 354.0          | 2.2                      | 1.5                     |
| BMDP606050101M00 | 100.0                     | 100KHZ/1V                | 588.0          | 1.8                      | 1.3                     |

## Typical Electrical Characteristics

### BMDP6060501R0M00

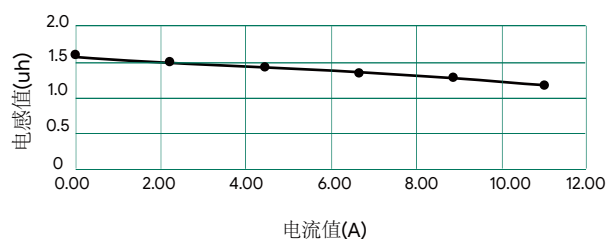


| 电流值(A)  | 0.00 | 3.00 | 6.00 | 9.00 | 12.00 | 15.00 |
|---------|------|------|------|------|-------|-------|
| 电感值(uh) | 0.98 | 0.94 | 0.89 | 0.89 | 0.76  | 0.74  |

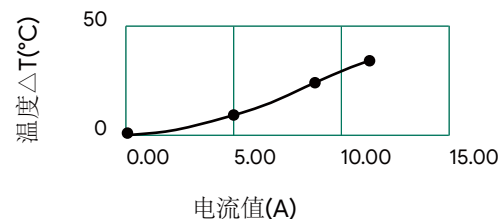


| 电流值(A)   | 0.00 | 9.00  | 13.00 | 15.00 |  |  |
|----------|------|-------|-------|-------|--|--|
| 温度ΔT(°C) | 0.00 | 13.30 | 33.80 | 44.20 |  |  |

### BMDP6060501R5M00

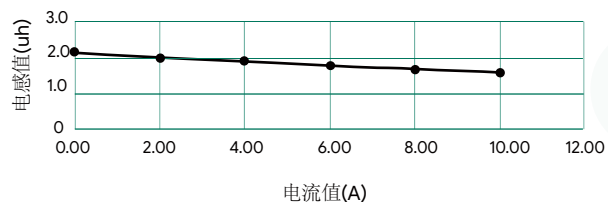


| 电流值(A)  | 0.00 | 2.20 | 4.40 | 6.60 | 8.80 | 11.00 |
|---------|------|------|------|------|------|-------|
| 电感值(uh) | 1.56 | 1.50 | 1.42 | 1.33 | 1.24 | 1.15  |

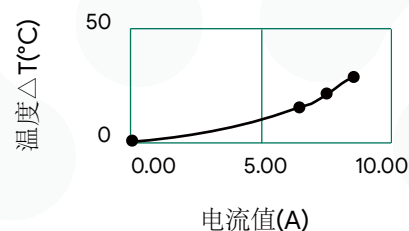


| 电流值(A)   | 0.00 | 5.00 | 9.00  | 11.00 |  |  |
|----------|------|------|-------|-------|--|--|
| 温度ΔT(°C) | 0.00 | 6.50 | 21.20 | 32.50 |  |  |

### BMDP6060502R2M00



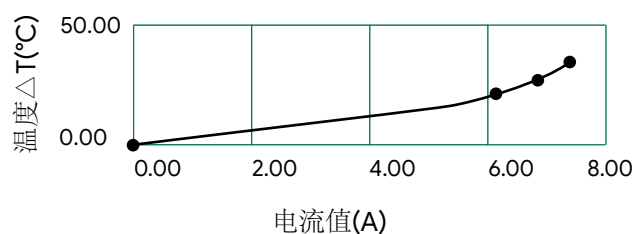
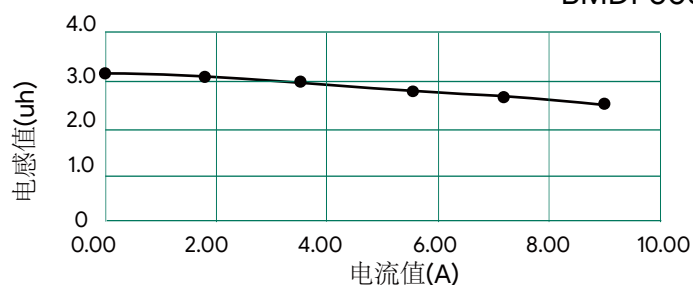
| 电流值(A)  | 0.00 | 2.00 | 4.00 | 6.00 | 8.00 | 10.00 |
|---------|------|------|------|------|------|-------|
| 电感值(uh) | 2.08 | 2.02 | 1.92 | 1.81 | 1.68 | 1.56  |



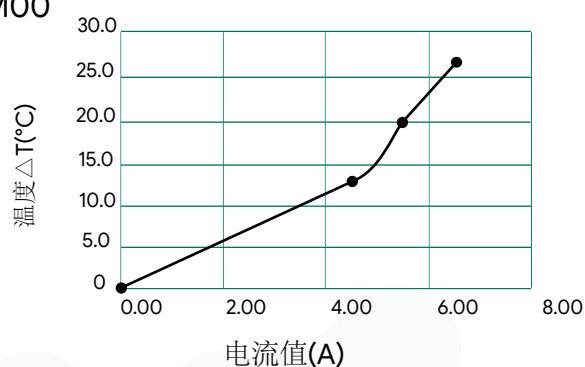
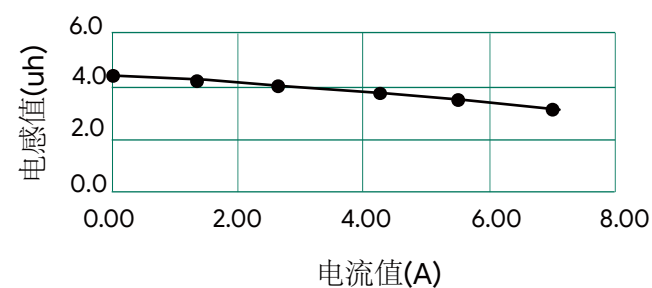
| 电流值(A)   | 0.00 | 6.50  | 7.50  | 8.50  |  |  |
|----------|------|-------|-------|-------|--|--|
| 温度ΔT(°C) | 0.00 | 15.40 | 23.00 | 29.20 |  |  |

## Typical Electrical Characteristics

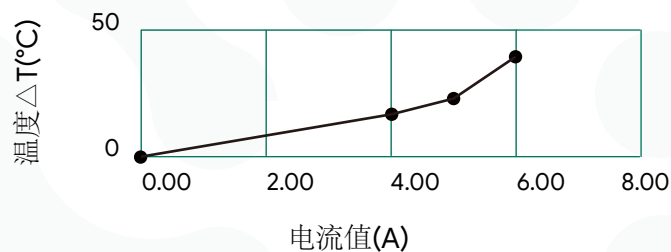
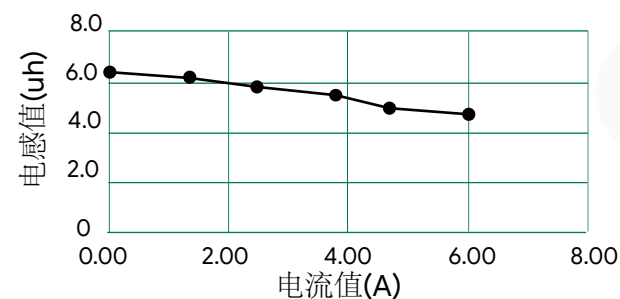
### BMDP6060503R3M00



### BMDP6060504R7M00

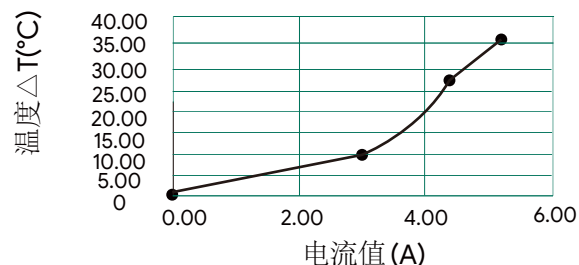
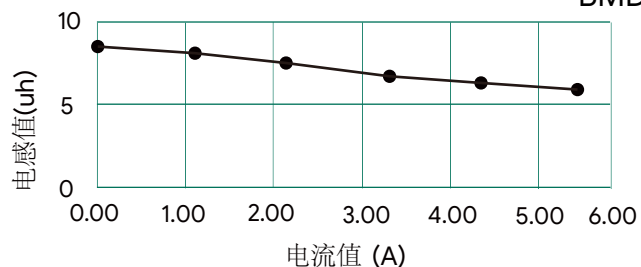


### BMDP6060506R8M00



## Typical Electrical Characteristics

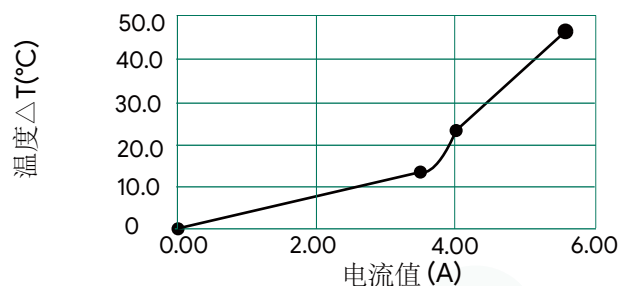
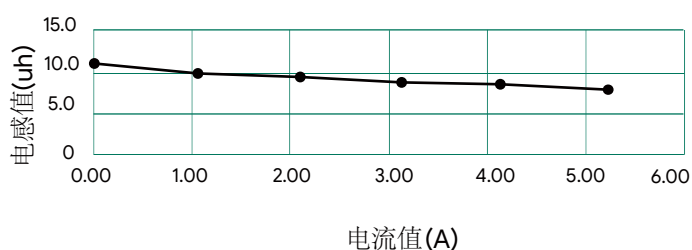
BMDP6060508R2M00



| Current (A)     | 0.00 | 1.10 | 2.20 | 3.30 | 4.40 | 5.50 |
|-----------------|------|------|------|------|------|------|
| Inductance (uh) | 8.08 | 7.93 | 7.63 | 7.20 | 6.75 | 6.31 |

| Current (A)           | 0.00 | 3.00 | 4.50  | 5.20  |  |  |
|-----------------------|------|------|-------|-------|--|--|
| Temperature Rise (°C) | 0.00 | 9.70 | 27.60 | 35.60 |  |  |

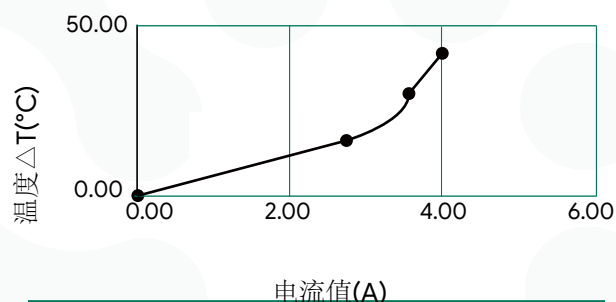
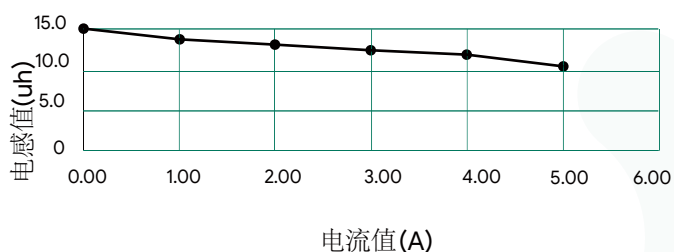
BMDP606050100M00



| Current (A)     | 0.00  | 1.06  | 2.12 | 3.18 | 4.24 | 5.30 |
|-----------------|-------|-------|------|------|------|------|
| Inductance (uh) | 10.42 | 10.08 | 9.60 | 9.03 | 8.40 | 7.83 |

| Current (A)           | 0.00 | 3.50  | 4.00  | 5.50  |  |  |
|-----------------------|------|-------|-------|-------|--|--|
| Temperature Rise (°C) | 0.00 | 13.90 | 22.50 | 44.90 |  |  |

BMDP606050150M00

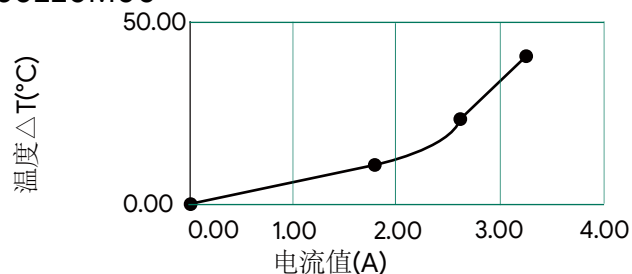
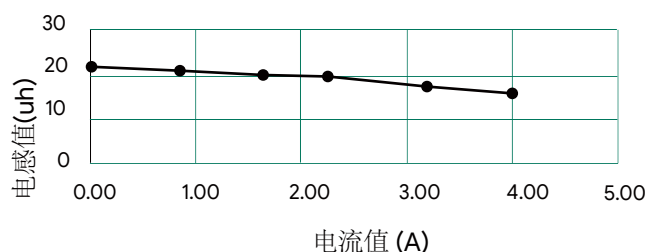


| Current (A)     | 0.00  | 1.00  | 2.00  | 3.00  | 4.00  | 5.00  |
|-----------------|-------|-------|-------|-------|-------|-------|
| Inductance (uh) | 14.48 | 14.05 | 13.48 | 12.62 | 11.71 | 10.84 |

| Current (A)           | 0.00 | 2.80  | 3.50  | 4.00  |  |  |
|-----------------------|------|-------|-------|-------|--|--|
| Temperature Rise (°C) | 0.00 | 14.70 | 24.30 | 36.80 |  |  |

## Typical Electrical Characteristics

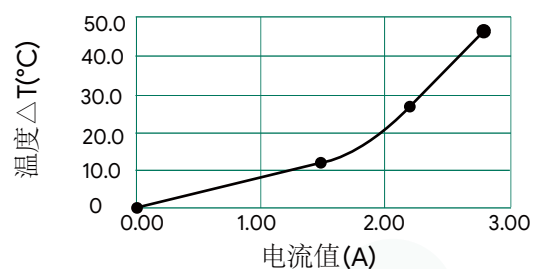
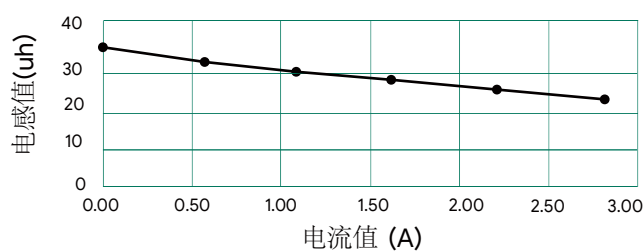
BMDP606050220M00



| Current (A)     | 0.00  | 0.80  | 1.60  | 2.40  | 3.20  | 4.00  |
|-----------------|-------|-------|-------|-------|-------|-------|
| Inductance (uh) | 21.59 | 21.03 | 20.11 | 18.99 | 17.77 | 16.51 |

| Current (A)           | 0.00 | 1.80  | 2.60  | 3.20  |  |  |
|-----------------------|------|-------|-------|-------|--|--|
| Temperature Rise (°C) | 0.00 | 10.20 | 23.40 | 37.10 |  |  |

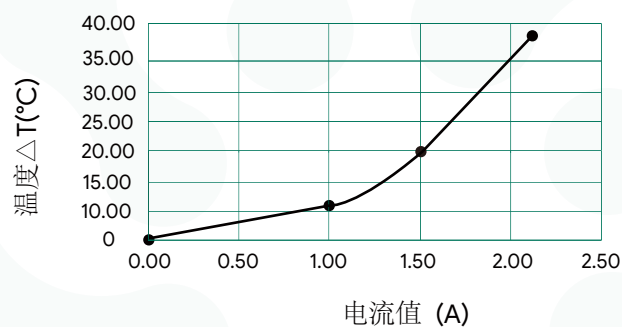
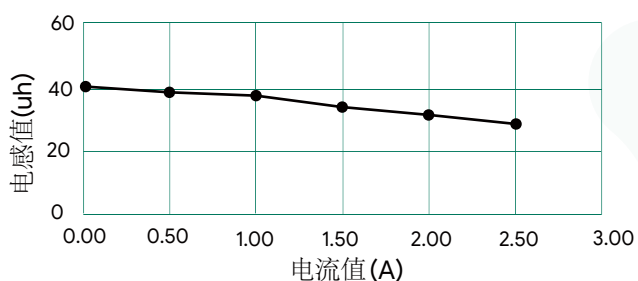
BMDP606050330M00



| Current (A)     | 0.00  | 0.56  | 1.12  | 1.68  | 2.24  | 2.80  |
|-----------------|-------|-------|-------|-------|-------|-------|
| Inductance (uh) | 34.32 | 32.88 | 30.74 | 28.32 | 25.88 | 23.48 |

| Current (A)           | 0.00 | 1.50  | 2.20  | 2.80  |  |  |
|-----------------------|------|-------|-------|-------|--|--|
| Temperature Rise (°C) | 0.00 | 11.70 | 25.80 | 46.40 |  |  |

BMDP606050470M00

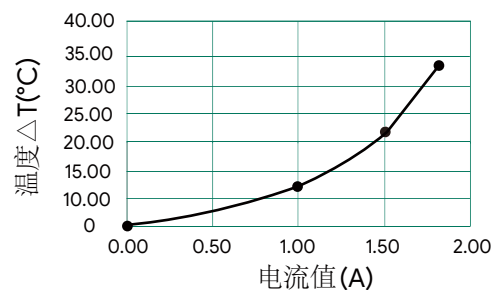
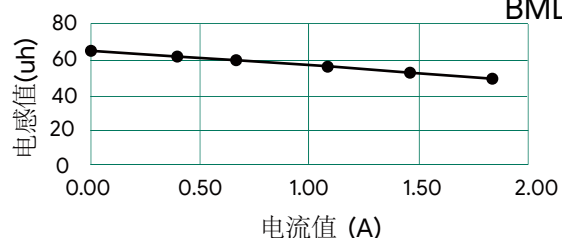


| Current (A)     | 0.00  | 0.50  | 1.00  | 1.50  | 2.00  | 2.50  |
|-----------------|-------|-------|-------|-------|-------|-------|
| Inductance (uh) | 41.28 | 39.72 | 37.38 | 34.74 | 32.06 | 29.47 |

| Current (A)           | 0.00 | 1.00 | 1.50  | 2.20  |  |  |
|-----------------------|------|------|-------|-------|--|--|
| Temperature Rise (°C) | 0.00 | 6.00 | 15.30 | 37.30 |  |  |

## Typical Eleectrical Characteristics

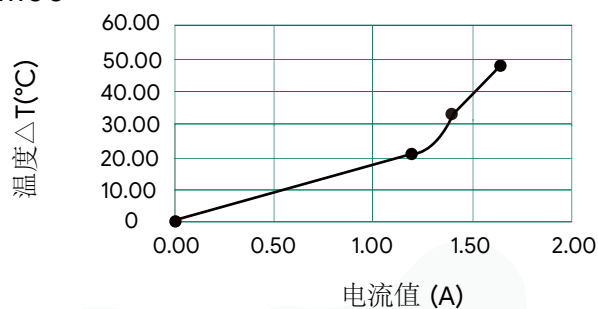
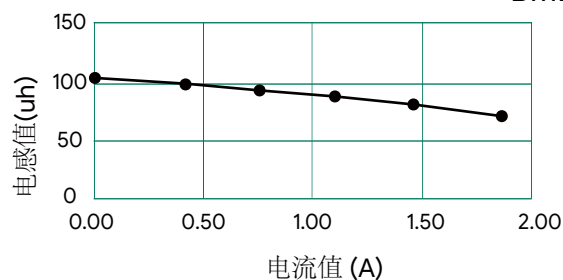
BMDP606050680M00



| 电流值 (A)  | 0.00  | 0.36  | 0.72  | 1.08  | 1.44  | 1.80  |
|----------|-------|-------|-------|-------|-------|-------|
| 电感值 (uh) | 64.32 | 62.45 | 59.90 | 56.79 | 53.57 | 50.25 |

| 电流值 (A)  | 0.00 | 1.00 | 1.50  | 1.80  |  |  |
|----------|------|------|-------|-------|--|--|
| 温度△T(°C) | 0.00 | 9.00 | 21.70 | 33.40 |  |  |

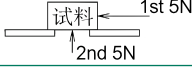
BMDP606050101M00



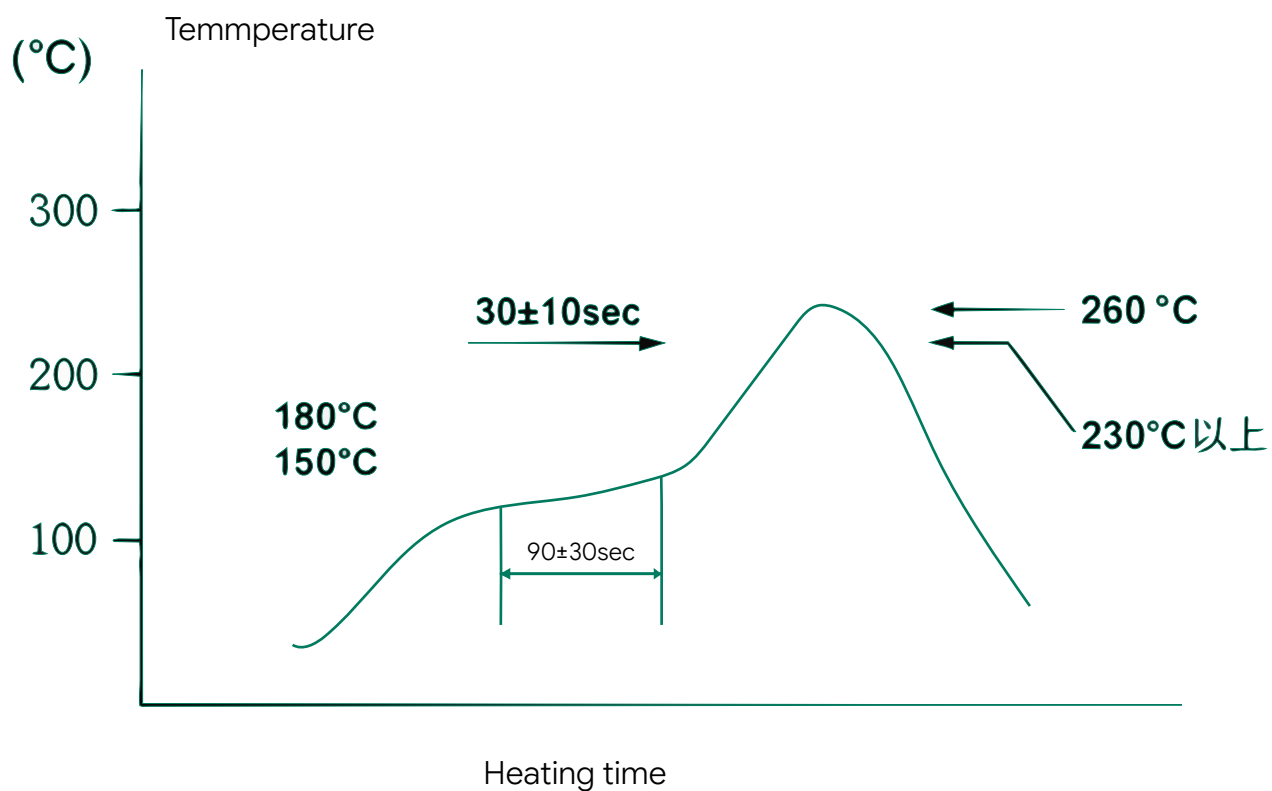
| 电流值 (A)  | 0.00   | 0.36   | 0.72  | 1.08  | 1.44  | 1.80  |
|----------|--------|--------|-------|-------|-------|-------|
| 电感值 (uh) | 104.53 | 100.18 | 93.76 | 86.56 | 79.32 | 72.22 |

| 电流值 (A)  | 0.00 | 1.20  | 1.40  | 1.60  |  |  |
|----------|------|-------|-------|-------|--|--|
| 温度△T(°C) | 0.00 | 21.90 | 33.50 | 48.70 |  |  |

## ⑥ Reliable Performance

|    | Item                                   | Specification                                                        | Condition                                                                                                                                                                                                                                                                                                                                     |
|----|----------------------------------------|----------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1  | Adhesion strength                      | Appearance no damage. Inductance within $\pm 10\%$ of initial value. | A static load using a R0.5 pressing tool shall be applied the arrow and to the body of the specimen in the direction of the arrow and shall be Specimen hold for 60 $\pm$ 5s. Measure after removing pressure<br>                                          |
| 2  | Vibration                              | Appearance no damage. Inductance within $\pm 10\%$ of initial value. | Vibration Frequency: 10~55~10Hz Amplitude: 1.5mm. Sweep time: 1min Test Directions: X,Y,Z Test Time: 2 hours each direction                                                                                                                                                                                                                   |
| 3  | Free fall test                         | Appearance no damage. Inductance within $\pm 10\%$ of initial value. | The specimen must be fixed on test board. It must be equipped with instruments of which weight is 500g. Then it shall be fallen freely from 1m height to rigid wood 3 times in each of three axes.                                                                                                                                            |
| 4  | Solder ability                         | New solder shall cover 95% minimum of the surface immersed.          | Terminals shall be immersed for 5 to 10 seconds in flux at room temperature. Dip sample into solder bath containing molten solder at 260 $\pm$ 5°C for 3 $\pm$ 0.5 seconds                                                                                                                                                                    |
| 5  | Dump heat test                         | Inductance within $\pm 10\%$ of initial value                        | The specimen shall be stored at a temperature of 40 $\pm$ 5°C with relative humidity of 90~95% for 96 $\pm$ 4h. Then it shall be stabilized under standard atmospheric conditions for 1h~2h before measurement.                                                                                                                               |
| 6  | Reflow test                            | Inductance within $\pm 10\%$ of initial value                        | Peak temp/ duration of stay.<br>260 $\pm$ 5°C/30 $\pm$ 10s<br>The specimen shall be subjected to the reflow process under the above condition 2 times. Test board shall be 0.8mm thick Base material shall be glass epoxy resin. Measurement : hen it shall be stabilized under standard atmospheric conditions for 1h~2h before measurement. |
| 7  | Low temperature preservation test      | Inductance within $\pm 10\%$ of initial value                        | The specimen shall be stored at a temperature of -40 $\pm$ 3°C for 96 $\pm$ 4h. Then it shall be stabilized under standard atmospheric conditions for 1h~2h before measurement.                                                                                                                                                               |
| 8  | High temperature preservation test     | Inductance within $\pm 10\%$ of initial value                        | The specimen shall be stored at a temperature of 125 $\pm$ 3°C for 96 $\pm$ 4h. Then it shall be stabilized under standard atmospheric conditions for 1h~2h before measurement.                                                                                                                                                               |
| 9  | Cold and hot cycle test                | Inductance within $\pm 10\%$ of initial value                        | Placed at the temperature of -40 $\pm$ 3 °C for 30 minutes, placed at 125 $\pm$ 3°C for 30 minutes, the heat and cold conversion time of no more than 5 $\pm$ 2 minute for a cycle, after 20 cycles, Then it shall be stabilized under standard atmospheric conditions for 1h~ 2h before measurement.                                         |
| 10 | Operating temperature range            | -55 ~ +125°C                                                         | Products heating tempratne                                                                                                                                                                                                                                                                                                                    |
| 11 | Storage temperature and humidity range | temperature range: 5°C~35°C<br>humidity range: 25%~80%               | In packing state                                                                                                                                                                                                                                                                                                                              |

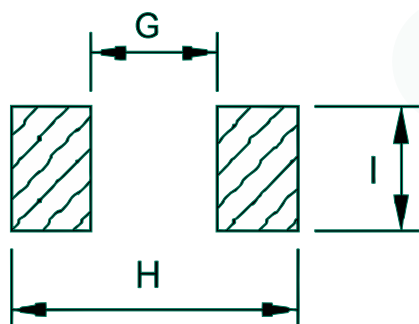
## ⑦ Recommended Soldering Conditions



### ⚠ NOTE:

- 1、1回数: 2回
- 2、Reflow times: 2times max.
- 3、We recommend infrared ray as heat source of reflow bath.
- 4、However halogen lamp shall be used, side heat will be beyond range of resistance heat, so we can't recommend it.

## ● Recommended PCB pattern

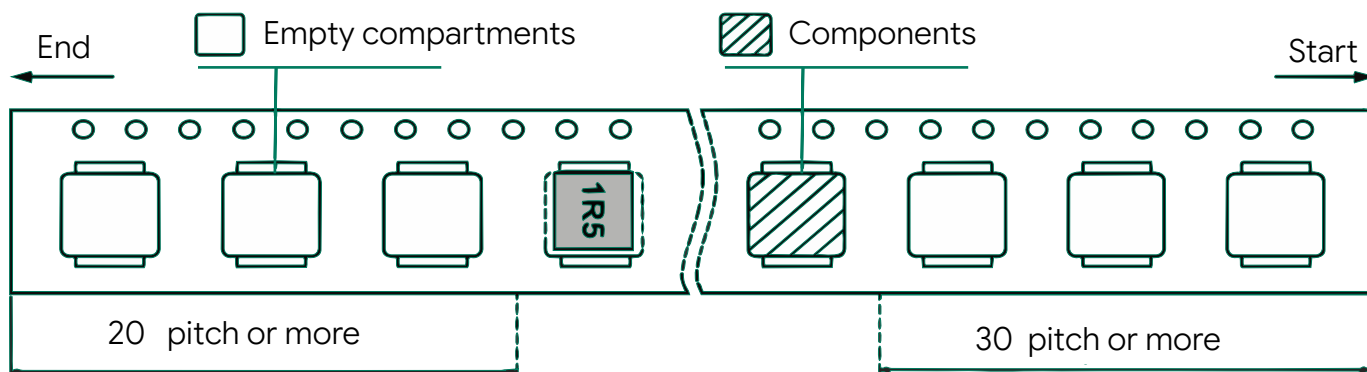


Dimensions in mm

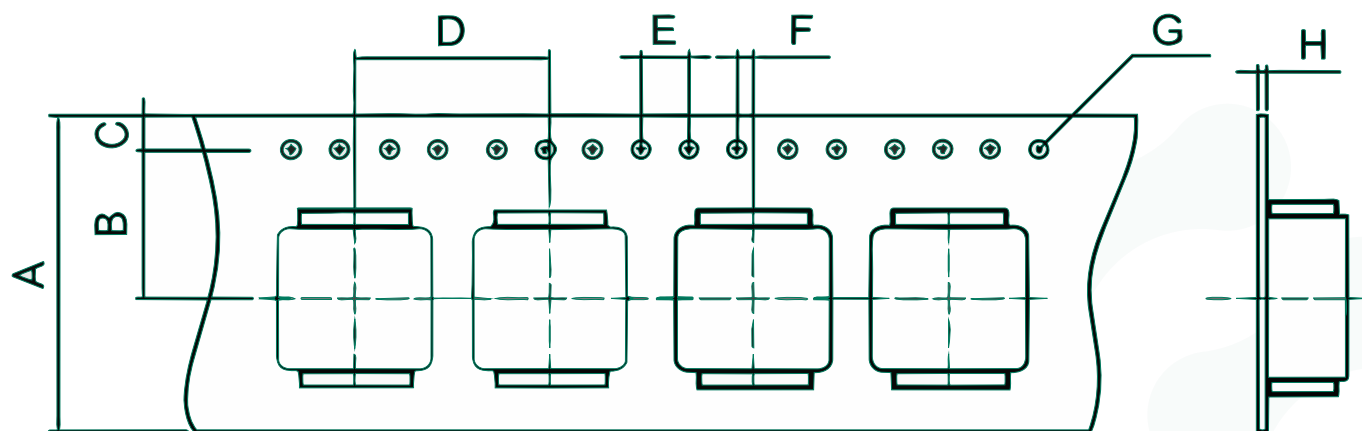
| I      | G      | H      |
|--------|--------|--------|
| 3.5REF | 3.4REF | 8.3REF |

## ⑧ Packaging

### 8.1 TAPING FIGURE



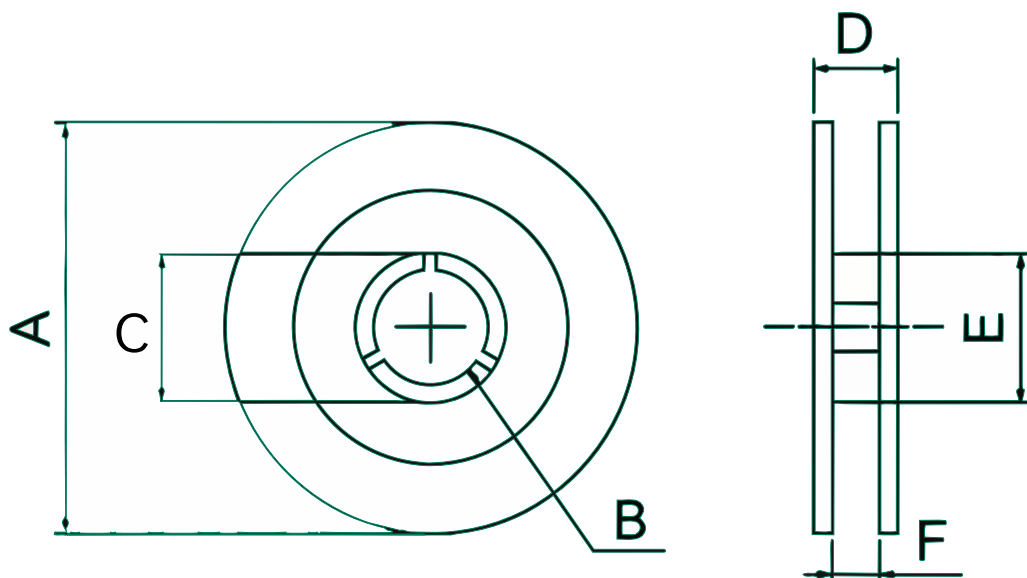
### 8.2 CARRIER TAPE DIMENSIONS



Dimensions in mm

| A           | B         | C         | D         | E        | F        | G         | H        |
|-------------|-----------|-----------|-----------|----------|----------|-----------|----------|
| 16.0 ± 0.20 | 7.50±0.10 | 1.75±0.10 | 12.0±0.10 | 4.0±0.10 | 2.0±0.10 | Φ1.5±0.10 | 0.3±0.05 |

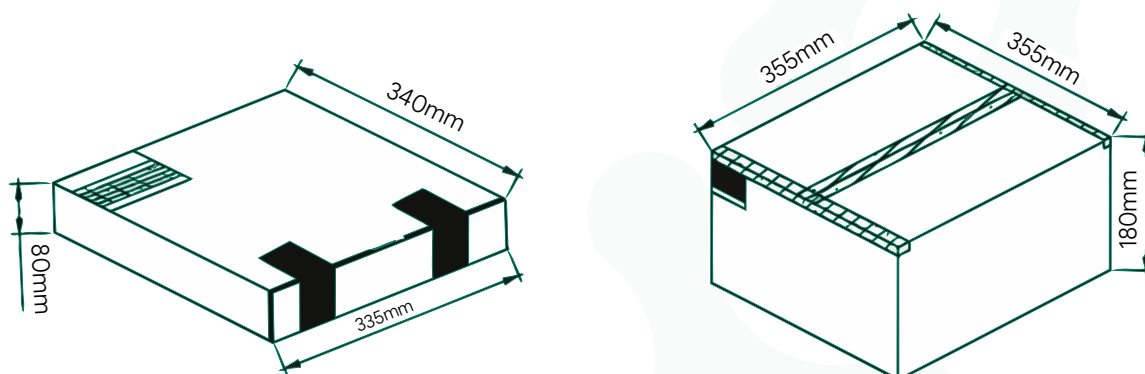
### 8.3 REEL DIMENSIONS



Tape Dimensions in mm

| A   | B   | C  | D  | E   | F  |
|-----|-----|----|----|-----|----|
| 330 | Φ13 | 30 | 21 | 100 | 18 |

### 8.4 Packaging quantities



| Product Series | Product Weight<br>pcs | QuantitReel  | QuantitInner<br>Box | Quantit Out<br>Carton |
|----------------|-----------------------|--------------|---------------------|-----------------------|
| BMDP606050     | /g/pcs                | 1000pcs/Reel | 3000pcs             | 15000pcs              |

## ⑨ Rating

### 1, Storage period

Use the products within 12 months after delivered. Solderability should be checked if this period is exceeded.

### 2, Storage conditions

- Storage temperature: 5°C ~35°C
- Storage environment: Humidity 25% ~80%

### 3, Delivery

Care should be taken when transporting or handling product to avoid excessive vibration or mechanical shock.