

# 承 认 书

## SPECIFICATION FOR APPROVAL

|                      |                    |              |   |
|----------------------|--------------------|--------------|---|
| CUSTOMER             |                    |              |   |
| CUSTOMER'S P/N       |                    |              |   |
| DATE                 | 15/Aug/2025        | REVISION NO. | A |
| PART NO.             | CKPM3020BS Series  |              |   |
| DRAWN NO.            |                    |              |   |
| DESCRIPTION.         | SMD POWER INDUCTOR |              |   |
| Customer's Signature |                    |              |   |
|                      |                    |              |   |
| Approved by          | Checked by         | Drawn by     |   |
| 黄大燕                  | 梁智坤                | 林峙儒          |   |
| 15/Aug/2025          | 15/Aug/2025        | 15/Aug/2025  |   |



广东今凯电子科技有限公司

GUANG DONG CHK ELECTRONIC TECH Co., Ltd

广东省佛山市顺德区北滘万洋科创园二区3栋

Building 3, District 2, Beijiao Wanyang Science and Technology  
Innovation Park, Shunde District, Foshan City, Guangdong Province

[www.gzchk.com](http://www.gzchk.com)



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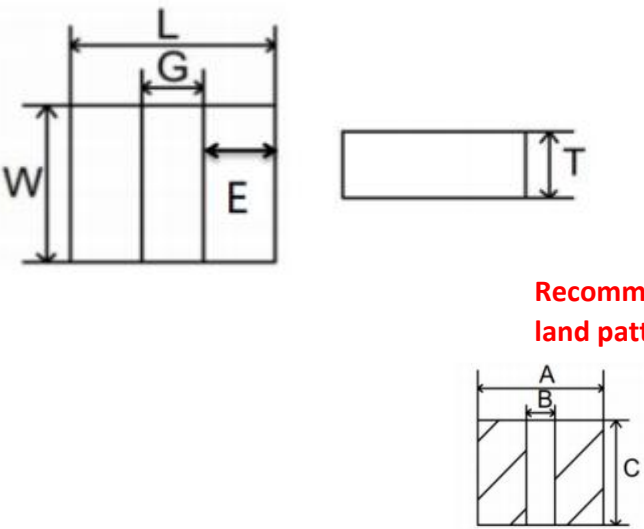
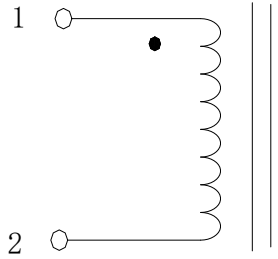


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| CUSTOMER       | 0                  | REVISION NO. | A         |
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| PART NO.       | CKPM3020BS         | DATE         | 2025/8/15 |

## 1.SHAPE & DIMENSION

|                                                                                    |      |      |      |     |      |                                                                                     |      |
|------------------------------------------------------------------------------------|------|------|------|-----|------|-------------------------------------------------------------------------------------|------|
| UNIT: mm                                                                           |      |      |      |     |      | SCHEMATICS                                                                          |      |
|  |      |      |      |     |      |  |      |
|                                                                                    |      |      |      |     |      | MARKING<br>COLOR                                                                    |      |
|                                                                                    |      |      |      |     |      | NA                                                                                  |      |
| L                                                                                  | G    | W    | E    | T   | A    | B                                                                                   | C    |
| 3.0                                                                                | 0.9  | 3.0  | 1    | 2   | 3    | 0.8                                                                                 | 3    |
| ±0.1                                                                               | ±0.2 | ±0.1 | ±0.2 | Max | Typ. | Typ.                                                                                | Typ. |

## PART NUMBERING SYSTEM

|                                               |    |      |   |   |   |     |   |   |
|-----------------------------------------------|----|------|---|---|---|-----|---|---|
| CK                                            | PM | 3020 | B | S | - | 2R2 | M | C |
| 1                                             | 2  | 3    | 4 | 5 |   | 6   | 7 | 8 |
| 1 CHK PRODUCTION (今凯制造)                       |    |      |   |   |   |     |   |   |
| 2 PRODUCT CATEGORY (产品种类)                     |    |      |   |   |   |     |   |   |
| 3 DIMENSIONS (尺寸规格)                           |    |      |   |   |   |     |   |   |
| 4 COATING COLOR (外观颜色) B- Black G-Gray        |    |      |   |   |   |     |   |   |
| 5 SIZE TOLERANCE (尺寸公差) S - ±0.2mm D - ±0.1mm |    |      |   |   |   |     |   |   |
| 6 INDUCTANCE (电感量)                            |    |      |   |   |   |     |   |   |
| 7 TOLERANCE (公差) K:±10% M:±20% N:±25% Y:±30%  |    |      |   |   |   |     |   |   |
| 8 PACKAGING (包装方式) C - 编带盘装 B - 盒装            |    |      |   |   |   |     |   |   |

|             |            |          |
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| APPROVED BY | CHECKED BY | DRAFT BY |
| 黄大燕         | 梁智坤        | 林峙儒      |



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| PART NO.       | CKPM3020BS         | DATE         | 2025/8/15 |

## 2.SERIES SPECIFICATION

### ◆ CKPM3020BS Series Specification:

| Part Number      | Inductance | Test Freq | DCR<br>(mΩ) |       | Saturation<br>Current<br>(A) |      | Temp. Rise<br>Current<br>(A) |      |
|------------------|------------|-----------|-------------|-------|------------------------------|------|------------------------------|------|
|                  | (μH)       | (Hz)      | Typ         | Max   | Typ                          | Max  | Typ                          | Max  |
| CKPM3020BS-R15MC | 0.15       | 1MHz/1V   | 4.0         | 5.0   | 18.0                         | 17.0 | 13.0                         | 12.0 |
| CKPM3020BS-R33MC | 0.33       | 1MHz/1V   | 7.5         | 9.0   | 17.0                         | 15.0 | 10.0                         | 9.0  |
| CKPM3020BS-R50MC | 0.50       | 1MHz/1V   | 9.0         | 12.0  | 15.0                         | 13.0 | 9.0                          | 8.0  |
| CKPM3020BS-R68MC | 0.68       | 1MHz/1V   | 13.0        | 16.0  | 13.0                         | 11.0 | 8.5                          | 7.8  |
| CKPM3020BS-1R0MC | 1.00       | 1MHz/1V   | 14.0        | 20.0  | 8.0                          | 7.3  | 6.5                          | 6.0  |
| CKPM3020BS-1R5MC | 1.50       | 1MHz/1V   | 19.0        | 25.0  | 7.0                          | 6.5  | 6.3                          | 5.8  |
| CKPM3020BS-2R2MC | 2.20       | 1MHz/1V   | 37.0        | 45.0  | 6.0                          | 5.5  | 4.7                          | 4.3  |
| CKPM3020BS-3R3MC | 3.30       | 1MHz/1V   | 52.0        | 63.0  | 5.9                          | 5.4  | 4.5                          | 4.0  |
| CKPM3020BS-4R7MC | 4.70       | 1MHz/1V   | 60.0        | 73.0  | 4.8                          | 4.0  | 4.2                          | 3.8  |
| CKPM3020BS-6R8MC | 68.00      | 1MHz/1V   | 107.0       | 135.0 | 4.5                          | 3.8  | 3.2                          | 3.0  |
| CKPM3020BS-100MC | 10.00      | 1MHz/1V   | 135.0       | 160.0 | 3.8                          | 3.3  | 2.5                          | 2.2  |
| CKPM3020BS-150MC | 15.00      | 1MHz/1V   | 235.0       | 260.0 | 2.6                          | 2.2  | 1.8                          | 1.5  |

### ◆TEST CONDITION

| ITEM | TEST CONDITION | TEST INSTRUMENTS      |
|------|----------------|-----------------------|
| L    | 1MHz/1V        | Microtest 6377        |
| Isat |                | TH1773+Microtest 6377 |
| Irms |                |                       |
| DCR  | 25±5℃          | TH2512B               |

\*The operating temperature is 25℃

\*Isat: For Inductance drop 30% from its value without current

\*Irms: The value of D.C current when the temperature rise is  $\Delta T \leq 40^\circ\text{C}$ . ( $T_a = 25^\circ\text{C}$ )

\*For CKPM3020BS size inductors, absolute maximum voltage: DC 25 V.

※此物料仅用于消费电子领域，若用于车载，航天，军事领域引起的一切品质和责任问题，我司既不承担※

|             |            |          |
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| 黄大燕         | 梁智坤        | 林峙儒      |



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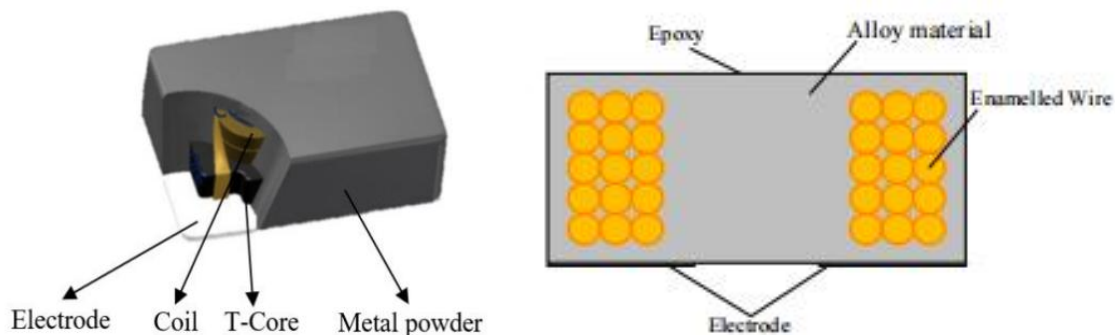
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| PART NO.       | CKPM3020BS         | DATE         | 2025/8/15 |

### 3.MATERIAL LIST & GENERAL SPECIFICATION

| 材料名称         | 型号及规格                 | 环保要求  | 备注   |
|--------------|-----------------------|-------|------|
| ITEM         | Materials             | EN.QU | Note |
| 本体 Body      | 合金材料 Alloy Material   | RoHS  |      |
| 线圈 Winding   | 漆包线 Enamelled Wire    | RoHS  |      |
| 涂层 Shield    | 环氧树脂 Epoxy            | RoHS  |      |
| 电极 Electrode | 底层—铜层 Base Plating—Cu | RoHS  |      |
|              | 镀层—镍层 Base Plating—Ni | RoHS  |      |
|              | 镀层—锡层 Base Plating—Sn | RoHS  |      |

| GENERAL SPECIFICATION       |           |
|-----------------------------|-----------|
| Electrical specifications : | at 20~25℃ |
| Operation Temperature:      | -40~+125℃ |
| Storage Temperature:        | -40~+125℃ |



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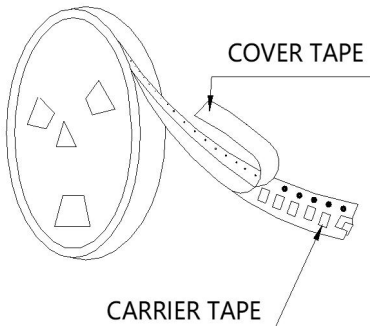
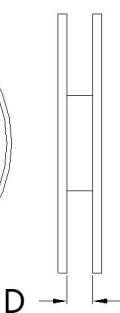
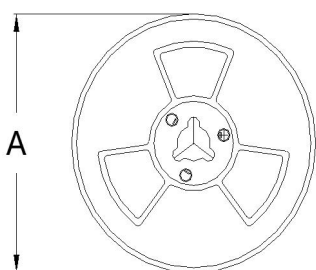
4.PACKAGING(unit: mm)

1.包装类型

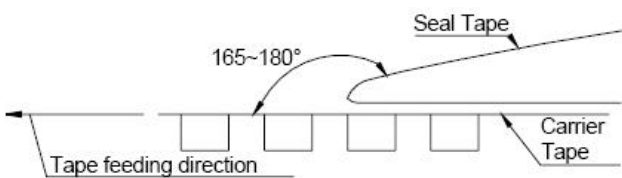
2.包装尺寸

13" 盘

7" 盘



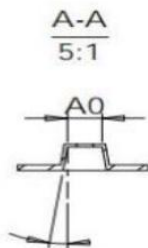
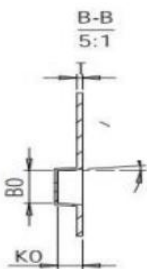
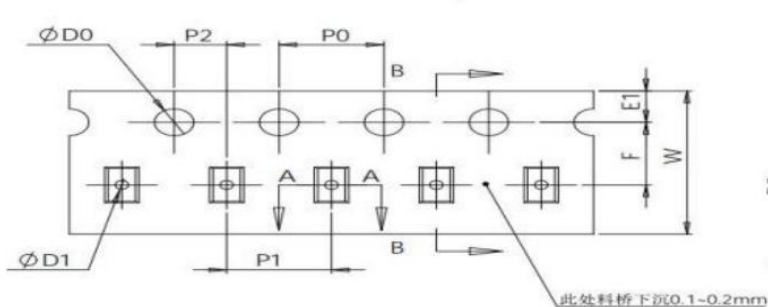
|   | 13" 盘              | 7" 盘               |
|---|--------------------|--------------------|
| A | $\Phi 330 \pm 2.0$ | $\Phi 178 \pm 2.0$ |
| D | 8.4                |                    |



Peel-off strength:10~100gf.

Peel-off angle:165°-180°

Peel-off speed:300mm/min.



| Item    | W                 | A0               | B0                | P                | T   | E    | F   | D0  | D1  | K0               | P0 | P1 | P2 |
|---------|-------------------|------------------|-------------------|------------------|-----|------|-----|-----|-----|------------------|----|----|----|
| DIM(mm) | 12.0<br>$\pm 0.3$ | 3.4<br>$\pm 0.1$ | 3.45<br>$\pm 0.1$ | 8.0<br>$\pm 0.1$ | 0.3 | 1.75 | 5.5 | 1.5 | 1.5 | 2.2<br>$\pm 0.1$ | 4  | 8  | 2  |

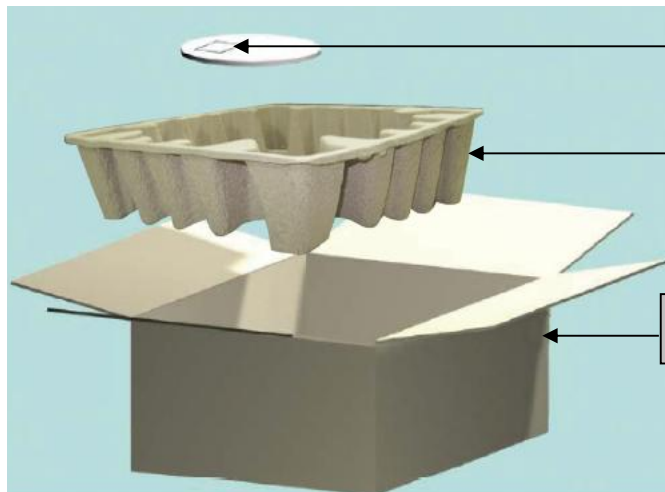
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## 5. CARTON



Innei Packaging(MPQ unit):  
内包装 (最小包装数量单位)

Interm ediate Packaging:  
中包装

Outer packaging:  
外包装

- 1.1 外箱: 40\*40\*17 cm 一纸托装一箱
- 1.2 内箱: CAG002(装7寸卷盘TRAY盘) 一箱装40卷制品
- 1.3 外箱材质: A三A
- 1.4 内箱材质: A=A
- 1.5 每5卷制品用一只静电袋包装
- 1.6 每一静电袋内放一只袋干燥剂
- 1.7 每一卷上面依标签样式的要求贴上标签明细
- 1.8 出货内外箱贴上该箱内实际内容明细

### 卷轴包装数量

|    |      |     |
|----|------|-----|
| 每卷 | 3000 | PCS |
|----|------|-----|

### 外箱包装数量

|    |    |     |        |     |
|----|----|-----|--------|-----|
| 每箱 | 40 | 卷,共 | 120000 | PCS |
|----|----|-----|--------|-----|

储存条件及期限:

温度: 20-25℃

湿度: ≤70%

时间: 六个月

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## 6. RELIABILITY TEST

| Test Items |                           | Test Conditions                                                                                                                         | Criteria                                                                                              |
|------------|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| 1          | Low temperature storage   | Placed at -40℃ for 500 hours, then measured at room ambient temperature after placing 24hours                                           | Inductance shall be within $\pm 10\%$ of the initial value.                                           |
| 2          | High temperature storage  | Placed at +125℃ for 500 hours, then measured at room ambient temperature after placing 24 hours                                         | Inductance shall be within $\pm 10\%$ of the initial value.                                           |
| 3          | Thermal shock             | Condition for 1 cycle:<br>-40℃,30min.~+125℃,30min<br>Number of cycles:5                                                                 | Inductance shall be within $\pm 10\%$ of the initial value.                                           |
| 4          | Humidity resistance       | Placed at 90 to 95%RH,+50℃ for 500 hours, then measured at room ambient temperature after placing 24 hours.                             | Inductance shall be within $\pm 10\%$ of the initial value.<br>Insulation resistance<br>> 100MΩ at DC |
| 5          | Drop                      | Drop specimen three times on concrete floor from a height of 1 meter which mounted on test board                                        | Inductance shall be within $\pm 10\%$ of the initial value.                                           |
| 6          | Vibration                 | Frequency::10~55~10Hz<br>Amplitude:1.5mm or 10G<br>Sweep time: 1 oct/min<br>Test Directions: X,Y,Z<br>Test Time: 2 hours each direction | Inductance shall be within $\pm 10\%$ of the initial value.                                           |
| 7          | Terminal strength         | Add static load 4.9N(500gf) to inductor through hole of test board for 10±2 sec.                                                        | No detachment of terminal pin and no breakage of wire                                                 |
| 8          | Soldering heat resistance | Dip Inductor's terminal in solder bath of following conditions:<br><br>1) 260±5℃, 10±1 sec,<br><br>2) 350±10℃, 3.5±0.5 sec              | Inductance shall be within $\pm 10\%$ of the initial value.<br>Apperance: No damage                   |

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## 7. SOLDERING CONDITIONS

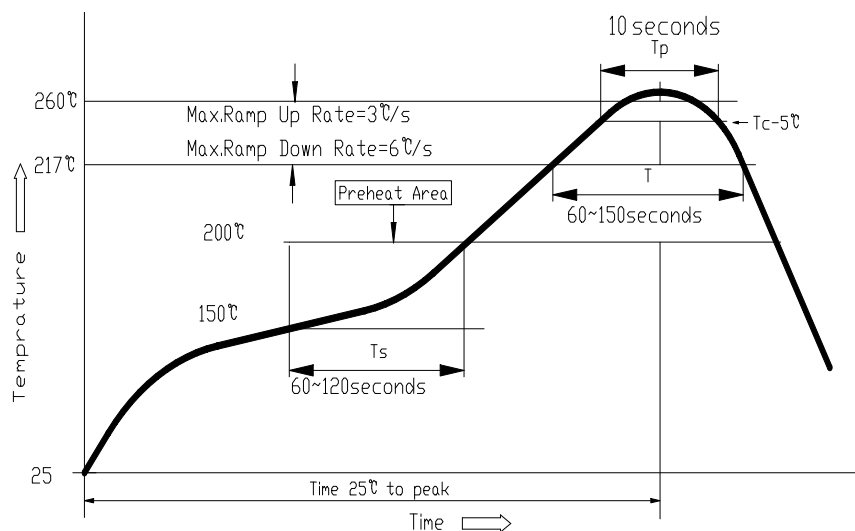
Applicable soldering process to the products is reflow.

### 9.1 Soldering Materials

(1) Solder:Sn-3.0Ag-0.5Cu

(2) Flux:Use rosin-based flux,but not strongly acidic flux (with xhlorine exceeding 0.2wt%).Do not use water-soluble flux

### 9.2 Reflow Soldering Profile



### 9.3 Soldering Iron

Reworking with electric soldering iron must preheating at 150°C for 1 minute is required,and do not directly touch the core with the tip of the soldering iron.The reworking soldering conditions are as follows.

- ①Temperature of soldering iron tip:350°C;
- ② Soldering iron power output:≤30W;
- ③ Diameter of soldering iron end:≤1.0mm;
- ④Soldering time:<3 s



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