# 承　　认　　书

# SPECIFICATION FOR APPROVAL

| | | | |
|---|---|---|---|
| **CUSTOMER** | | | |
| **CUSTOMER'S P/N** | | | |
| **DATE** | 18/Mar/2025 | REVISION NO. | A |
| **PART NO.** | CKNR6012B　Series | | |
| **DRAWN NO.** | | | |
| **DESCRIPTION.** | SMD POWER INDUCTOR | | |
| **Customer's Signature** | | | |
| | | | |

| Approved by | Checked by | Drawn by |
|---|---|---|
| 黄大燕 | 黄大燕 | 林树英 |
| 18/Mar/2025 | 18/Mar/2025 | 18/Mar/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


RoHS Compliance

广 东 今 凯 电 子 科 技 有 限 公 司

GUANG DONG CHK ELECTRONIC TECH Co., Ltd

# ECN HISTORY LIST

| REV | DATE | DESCRIPTION | CHECK | APPROVED |
|---|---|---|---|---|
| A | 2025/3/18 | 新作成 | 林树英 | 黄大燕 |
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# 广 东 今 凯 电 子 科 技 有 限 公 司

## GUANG DONG CHK ELECTRONIC TECH Co., Ltd

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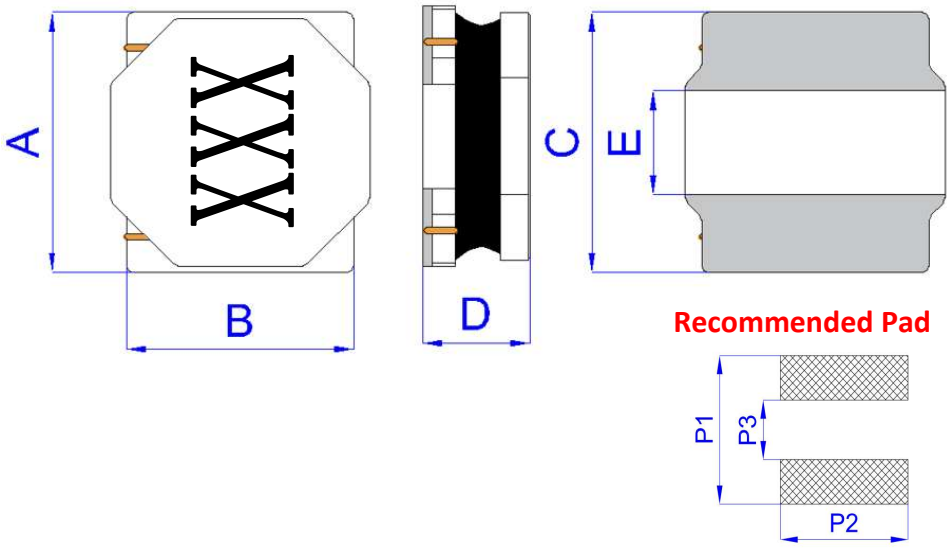
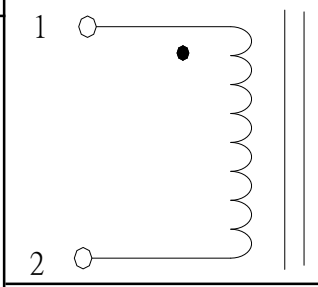
|---|---|---|---|
| CUSTOMER | 0 | REVISION NO. | A |
| CUSTOMER'S P/N | 0 | PAGE | P 1/8 |
| DESCRIPTION. | SMD POWER INDUCTOR | DRAWN NO. | 0 |
| PART NO. | CKNR6012B Series | DATE | 2025/3/18 |

## 1.SHAPE & DIMENSION

**UNIT: mm**




SCHEMATICS




**MARKING COLOR**

**BLACK**

| A | B | C | D | E | P1 | P2 | P3 |
|---|---|---|---|---|---|---|---|
| 6 | 6 | 6 | 1 | 2.65 | 6.3 | 5.7 | 3.1 |
| ±0.2 | ±0.2 | ±0.2 | ±0.1 | ±0.3 | Ref. | Ref. | Ref. |

## PART NUMBERING SYSTEM

| CK | NR | 6012 | B | - | 2R2 | M | C |
|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | | 4 | 5 | 6 |

1 CHK PRODUCTION (今凯制造)

2 PRODUCT CATEGORY （产品种类） NR-镍锌 NRS-合金

3 DIMENSIONS （尺寸规格）

4 MAERTIAL TYPE （材料类型）

5 INDUCTANCE （电感量）

6 TOLERANCE （公差） M:±20% N:±25% Y:±30%

7 PACKAGING （包装方式） C - 编带盘装 B - 盒装

| APPROVED BY | CHECKED BY | DRAFT BY |
|---|---|---|
| 黄大燕 | 黄大燕 | 林树英 |

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| CUSTOMER | 0 | REVISION NO. | A |
| CUSTOMER'S P/N | 0 | PAGE | P 2/8 |
| DESCRIPTION. | SMD POWER INDUCTOR | DRAWN NO. | 0 |
| PART NO. | CKNR6012B Series | DATE | 2025/3/18 |

## 2.SERIES SPECIFICATION

◆ CKNR6012B SSeries Specification:

| Part Number | Inductance | Test Freq | DCR(mΩ) | | Saturation Current (A) | | Temp.Rise Current (A) | |
|---|---|---|---|---|---|---|---|---|
| | (μH) | (Hz) | Max | Typ | Max | Typ | Max | Typ |
| CKNR6012B-2R2NC | 2.20 | 100KHz/1V | 120 | 95 | 2.80 | 3.20 | 2.80 | 3.10 |
| CKNR6012B-3R3MC | 3.30 | | 163 | 128 | 2.50 | 2.80 | 2.40 | 2.60 |
| CKNR6012B-4R7MC | 4.70 | | 220 | 173 | 1.80 | 2.00 | 2.20 | 2.50 |
| CKNR6012B-6R8MC | 6.80 | | 280 | 200 | 1.75 | 1.95 | 1.80 | 2.20 |
| CKNR6012B-100MC | 10 | | 371 | 286 | 1.50 | 1.70 | 1.30 | 1.70 |
| CKNR6012B-150MC | 15 | | 659 | 547 | 1.20 | 1.30 | 1.10 | 1.30 |
| CKNR6012B-220MC | 22 | | 784 | 615 | 0.95 | 1.05 | 0.95 | 1.15 |

◆TEST CONDITION

| ITEM | TEST CONDITION | TEST INSTRUMENTS |
|---|---|---|
| L | 100KHz/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 △T≦40℃.(Ta=25℃)

*For CKNR6012B Series 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※

| APPROVED BY | CHECKED BY | DRAWN BY |
|---|---|---|
| 黄大燕 | 黄大燕 | 林树英 |

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|---|---|---|---|
| CUSTOMER | 0 | REVISION NO. | A |
| CUSTOMER'S P/N | 0 | PAGE | P 3/8 |
| DESCRIPTION. | SMD POWER INDUCTOR | DRAWN NO. | 0 |
| PART NO. | CKNR6012B Series | DATE | 2025/3/18 |

## 3.MATERIAL LIST & GENERAL SPECIFICATION

| 材料名称 | 型号及规格 | 制造商 | 环保要求 | 备注 |
|---|---|---|---|---|
| ITEM | Materials | Manufacturer | EN.QU | Note |
| 磁芯1（Drum Core) | 镍锌（Nickel-Zinc) | DJ | RoHS | Primary |
| 铜线（Wire） | Polyester Wire or equlvalent | ELEKTRISOLA | RoHS | |
| 胶水（Glue) | Phenolic epoxy resin | DAJOO | RoHS | |
| 锡（Solder) | 107H | QD | RoHS | Primary |
| 锡（Solder) | 107H | TF | RoHS | Alternative |

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

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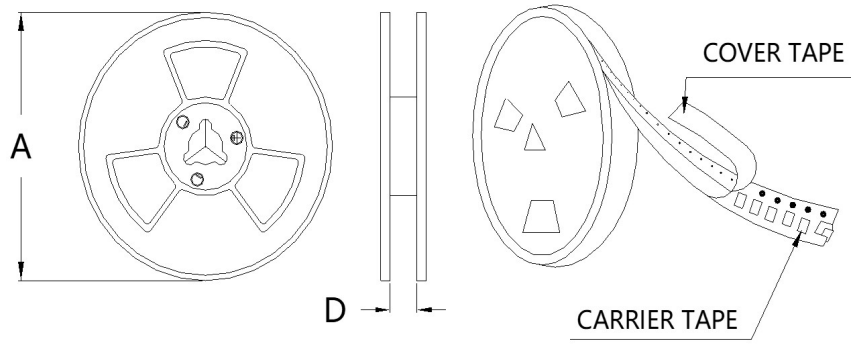
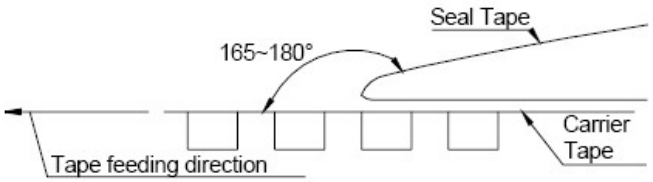
| CUSTOMER'S P/N | 0 | PAGE | P 4/8 |
| DESCRIPTION. | SMD POWER INDUCTOR | DRAWN NO. | 0 |
| PART NO. | CKNR6012B Series | DATE | 2025/3/18 |

## 4.PACKAGING(unit: mm)

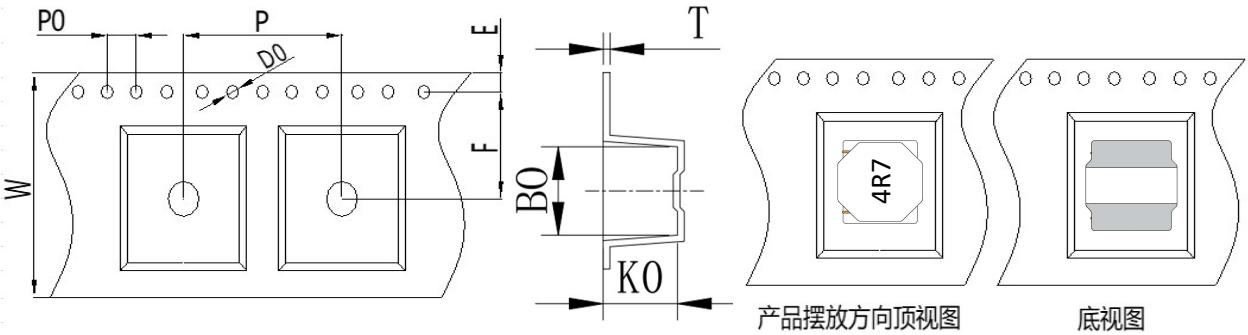
**1.包装类型** **2.包装尺寸** ■ 13″ 盘 □ 7″ 盘




| | 13″ 盘 | 7″ 盘 |
|---|---|---|
| A | Φ330±2.0 | Φ178±2.0 |
| D | 16.4 | |




Peel-off strength:10～100gf.
Peel-off angle:165°-180°
Peel-off speed:300mm/min.




| Item | W | B0 | P | T | E | F | D0 | P0 | K0 | |
|---|---|---|---|---|---|---|---|---|---|---|
| DIM(mm) | 16.0±0.3 | 6.4±0.1 | 8.0±0.1 | 0.3±0.05 | 1.75±0.1 | 7.5±0.1 | 1.5±0.1 | 4.0±0.1 | 1.4±0.1 | |

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|---|---|---|
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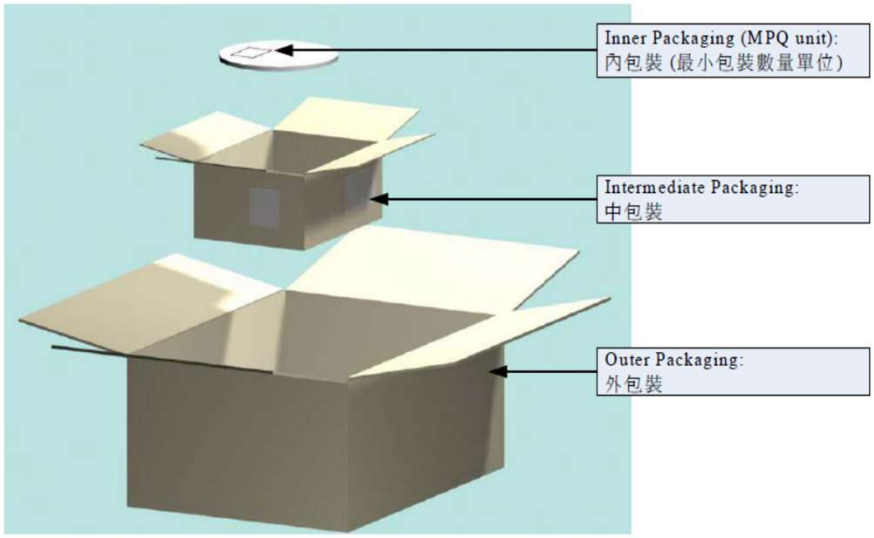
| CUSTOMER'S P/N | 0 | PAGE | P 5/8 |
| DESCRIPTION. | SMD POWER INDUCTOR | DRAWN NO. | 0 |
| PART NO. | CKNR6012B Series | DATE | 2025/3/18 |

## 5. CARTON




1.1 外箱: 36*36*23 cm 一箱裝 2內箱
1.2 內箱: 33.5*33.5*9 cm 一箱裝5卷制品
1.3 外箱材質: A三A
1.4 內箱材質: A=A
1.5 每一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 出货內外箱贴上该箱內实际內容明细
1.9 出货标签规格如下: 尺寸=长度:90mm 宽度:50mm
(如: 客戶有特殊要求時, 則依客戶要求實施.)

储存条件及期限:
温度: 20-25℃
湿度: ≦70%
时间: 六个月

| 卷轴包装数量 | | |
|---|---|---|
| 每卷 | 3500 | PCS |

| 内箱包装数量 | | | | |
|---|---|---|---|---|
| 每箱 | 5 | 卷,共 | 17500 | PCS |

| 外箱包装数量 | | | | |
|---|---|---|---|---|
| 每箱 | 10 | 卷,共 | 35000 | PCS |

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|---|---|---|---|
| CUSTOMER | 0 | REVISION NO. | A |
| CUSTOMER'S P/N | 0 | PAGE | P 6/8 |
| DESCRIPTION. | SMD POWER INDUCTOR | DRAWN NO. | 0 |
| PART NO. | CKNR6012B Series | DATE | 2025/3/18 |

## 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 ± 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 ± 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 ± 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 ± 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 ± 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 ± 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>1) 260±5℃, 10±1 sec,<br>2) 350±10℃, 3.5±0.5 sec | Inductance shall be within ± 10% of the initial value.<br>Apperance: No damage |

| APPROVED BY | CHECKED BY | DRAFT |
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| 黄大燕 | 黄大燕 | 林树英 |

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|---|---|---|---|
| CUSTOMER | 0 | REVISION NO. | A |
| CUSTOMER'S P/N | 0 | PAGE | P 7/8 |
| DESCRIPTION. | SMD POWER INDUCTOR | DRAWN NO. | 0 |
| PART NO. | CKNR6012B Series | DATE | 2025/3/18 |

## 7. SOLDERING CONDITIONS

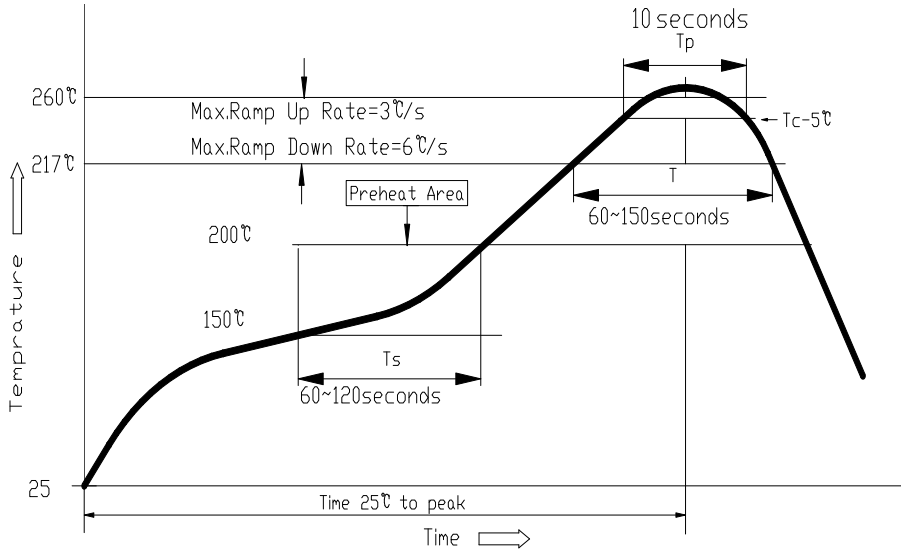
Applicable soldering process to the products is refl.

### 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

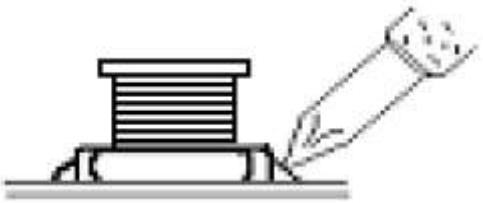
Reworking with electric solding iron must preheating at 150℃ for 1 minute is required,and do not directly touch the core with the tip of the soldering iron.The reworking soldering conditions are as follows.

①Temperature of soldering iron tip:350℃；

② Soldering iron power output:≤30W；

③ Diameter of soldering iron end:≤1.0mm；

④Soldering time:＜3 s



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|---|---|---|
| 黄大燕 | 黄大燕 | 林树英 |

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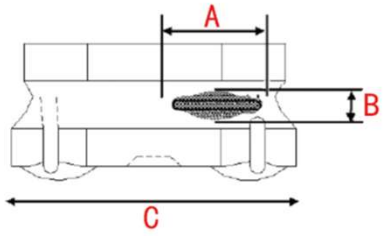
| CUSTOMER'S P/N | 0 | PAGE | P 8/8 |
| DESCRIPTION. | SMD POWER INDUCTOR | DRAWN NO. | 0 |
| PART NO. | CKNR6012B Series | DATE | 2025/3/18 |

## 8.Appearance of the standard

### 1.Void appearance tolerance limit




Size of voids occurring to coating resin is specified below.

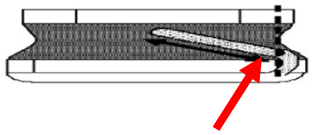
①Width direction(dimension A): Acceptable when A<=C/2

Nonconforming when B>=C/2

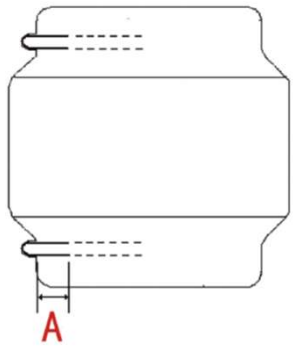
②Length direction(dimension B):Dimension b is not specified

③When total area of voids (including one exposing coil) occurring to each sides is not greater than 50% of coating resin area,that is acceptable.

### 2.External appearance criterion for exposed wire



Exposed end of the winding wire at the secondary side should be 3.0mm and below.




①Acceptable when A<=0.8mm

②Nonconforming when A>0.8mm

| APPROVED BY | CHECKED BY | DRAFT |
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## SPECIFICATION FOR APPROVAL

RoHS Compliance

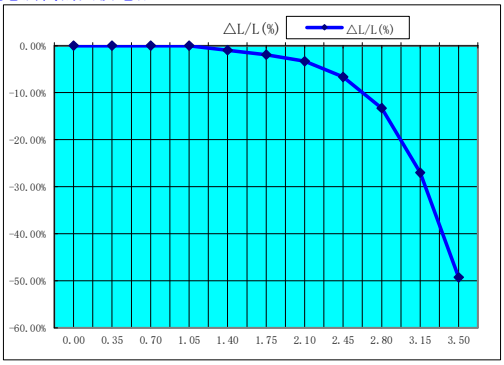
| | | | |
|---|---|---|---|
| CUSTOMER | | | |
| CUSTOMER'S P/N | | | |
| JINKAI P/N: | CKNR6012B-2R2NC | TEST R.H. | 80~85% |
| PART NO. | CKNR6012B Series | TEST TEMP. | 20~25℃ |
| DRAWN NO. | | DATE | 2025/3/18 |

### TEST DATA FOR PREPRODUCTION SAMPLE

| TEST RESOLUTION | | | | | | | DIMENSION (Unit：mm) | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| MEAS. ITEM | L μh | DCR mΩ | Isat A | △L/L | Irms A | | | 長 mm | 寬 mm | 高 mm |
| SPEC. | 2.2 ± 25% | 120 Max. | 2.60 Max. | △L/L≦-30% | 2.10 △T≦40℃ ℃ | | 上限 下限 | 6.2 5.8 | 6.2 5.8 | 1.2 MAX |
| TEST FREQ. | 100KHz/1V | | 100KHz/1V | | | | | | | |
| 1 | 1.95 | 95.6 | 1.72 | -11.79% | OK | | | 5.96 | 5.98 | 1.17 |
| 2 | 1.94 | 95.2 | 1.71 | -11.86% | OK | | | 5.97 | 5.96 | 1.13 |
| 3 | 1.91 | 94.8 | 1.69 | -11.52% | OK | | | 5.99 | 5.96 | 1.12 |
| 4 | 1.97 | 95.8 | 1.75 | -11.17% | OK | | | 6.03 | 5.99 | 1.14 |
| 5 | 1.96 | 97.8 | 1.75 | -10.71% | OK | | | 5.98 | 5.95 | 1.15 |
| 6 | 1.97 | 94.2 | 1.74 | -11.68% | OK | | | 5.97 | 5.96 | 1.17 |
| 7 | 1.98 | 92.5 | 1.75 | -11.62% | OK | | | 5.98 | 5.98 | 1.16 |
| 8 | 1.98 | 94.2 | 1.76 | -11.11% | OK | | | 5.99 | 5.97 | 1.15 |
| 9 | 1.98 | 94.8 | 1.77 | -10.61% | OK | | | 5.96 | 5.99 | 1.16 |
| 10 | 1.99 | 95.2 | 1.76 | -11.56% | OK | | | 6.00 | 5.98 | 1.15 |
| AVG. | **1.963** | **95.01** | **1.74** | **-11.36%** | | | | **5.983** | **5.972** | **1.15** |
| R | **0.08** | **5.3** | **0.08** | **1.25%** | | | | **0.07** | **0.04** | **0.05** |

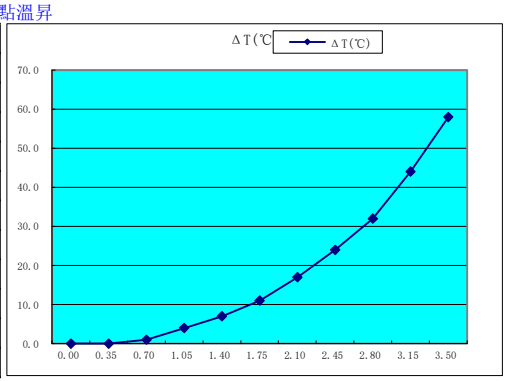
Isat(飽和電流):電感瞬間的突波電流

| TME(秒) | Lsat(A) | L(UH) | △L/L(%) |
|---|---|---|---|
| 1 | 0.00 | 2.11 | 0.00% |
| 1 | 0.35 | 2.11 | 0.00% |
| 1 | 0.70 | 2.11 | 0.00% |
| 1 | 1.05 | 2.11 | 0.00% |
| 1 | 1.40 | 2.09 | -0.95% |
| 1 | 1.75 | 2.07 | -1.90% |
| 1 | 2.10 | 2.04 | -3.32% |
| 1 | 2.45 | 1.97 | -6.64% |
| 1 | 2.80 | 1.83 | -13.27% |
| 1 | 3.15 | 1.54 | -27.01% |
| 1 | 3.50 | 1.07 | -49.29% |




單點溫昇

| TIME(S) | Irms(A) | L(uH) | ΔL/L(%) | Temp(℃) | ΔT(℃) |
|---|---|---|---|---|---|
| 30 | 0.00 | 2.07 | 0.00% | 29.0 | 0.0 |
| 30 | 0.35 | 2.08 | 0.48% | 29.0 | 0.0 |
| 30 | 0.70 | 2.07 | 0.00% | 30.0 | 1.0 |
| 30 | 1.05 | 2.06 | -0.48% | 33.0 | 4.0 |
| 30 | 1.40 | 2.03 | -1.93% | 36.0 | 7.0 |
| 30 | 1.75 | 2.00 | -3.38% | 40.0 | 11.0 |
| 30 | 2.10 | 2.01 | -2.90% | 46.0 | 17.0 |
| 30 | 2.45 | 1.91 | -7.73% | 53.0 | 24.0 |
| 30 | 2.80 | 1.60 | -22.71% | 61.0 | 32.0 |
| 30 | 3.15 | 1.12 | -45.89% | 73.0 | 44.0 |
| 30 | 3.50 | 0.70 | -66.18% | 87.0 | 58.0 |



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## SPECIFICATION FOR APPROVAL

RoHS Compliance

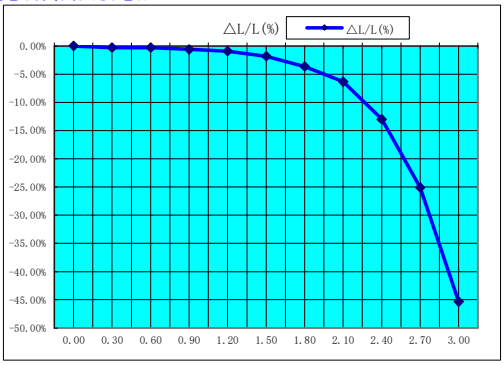
| | | | |
|---|---|---|---|
| CUSTOMER | | | |
| CUSTOMER'S P/N | | | |
| JINKAI P/N: | CKNR6012B-3R3MC | TEST R.H. | 80~85% |
| PART NO. | CKNR6012B Series | TEST TEMP. | 20~25℃ |
| DRAWN NO. | | DATE | 2025/3/18 |

### TEST DATA FOR PREPRODUCTION SAMPLE

| | TEST RESOLUTION | | | | | | | | | DIMENSION (Unit：mm) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAS. ITEM | L<br>μh | DCR<br>mΩ | Isat<br>A | △L/L | Irms<br>A | | | | | | 長<br>mm | 寬<br>mm | 高<br>mm |
| SPEC. | 3.3<br>±<br>20% | 163<br>Max. | 1.90<br>Max. | △L/L≦-30% | 1.90<br>△T≦40℃<br>℃ | | | | | 上限<br>下限 | 6.2<br>5.8 | 6.2<br>5.8 | 1.2<br>MAX |
| TEST FREQ. | 100KHz/1V | | 100KHz/1V | | | | | | | | | | |
| 1 | 3. 12 | 129 | 2.90 | -7.05% | OK | | | | | | 5.96 | 5.98 | 1.17 |
| 2 | 3. 09 | 131 | 2.90 | -6.15% | OK | | | | | | 5.97 | 5.96 | 1.13 |
| 3 | 3. 08 | 127 | 2.85 | -7.47% | OK | | | | | | 5.99 | 5.96 | 1.12 |
| 4 | 3. 10 | 126 | 2.84 | -8.39% | OK | | | | | | 6.03 | 5.99 | 1.14 |
| 5 | 3. 09 | 131 | 2.90 | -6.15% | OK | | | | | | 5.98 | 5.95 | 1.17 |
| 6 | 3. 06 | 129 | 2.84 | -7.19% | OK | | | | | | 6.04 | 5.94 | 1.13 |
| 7 | 2. 96 | 128 | 2.71 | -8.45% | OK | | | | | | 5.95 | 5.96 | 1.12 |
| 8 | 2. 98 | 129 | 2.74 | -8.05% | OK | | | | | | 5.99 | 5.95 | 1.14 |
| 9 | 3. 08 | 128 | 2.75 | -10.71% | OK | | | | | | 5.96 | 5.95 | 1.15 |
| 10 | 2. 90 | 129 | 2.69 | -7.24% | OK | | | | | | 5.97 | 5.98 | 1.15 |
| AVG. | **3.046** | **128.7** | **2.812** | **-7.68%** | | | | | | | **5.984** | **5.962** | **1.142** |
| R | **0.22** | **5** | **0.21** | **4.57%** | | | | | | | **0.09** | **0.05** | **0.05** |

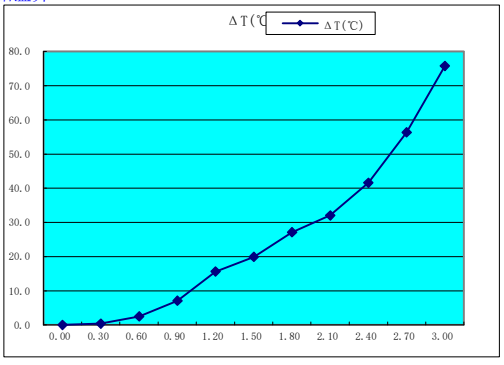
Isat(飽和電流):電感瞬間的突波電流

| TME(秒) | Lsat(A) | L(UH) | △L/L(%) |
|---|---|---|---|
| 1 | 0.00 | 3.31 | 0.00% |
| 1 | 0.30 | 3.30 | -0.30% |
| 1 | 0.60 | 3.30 | -0.30% |
| 1 | 0.90 | 3.29 | -0.60% |
| 1 | 1.20 | 3.28 | -0.91% |
| 1 | 1.50 | 3.25 | -1.81% |
| 1 | 1.80 | 3.19 | -3.63% |
| 1 | 2.10 | 3.10 | -6.34% |
| 1 | 2.40 | 2.88 | -12.99% |
| 1 | 2.70 | 2.48 | -25.08% |
| 1 | 3.00 | 1.81 | -45.32% |




單點溫昇

| TIME(S) | Irms(A) | L(uH) | ΔL/L(%) | Temp(℃) | ΔT(℃) |
|---|---|---|---|---|---|
| 30 | 0.00 | 3.29 | 0.00% | 27.2 | 0.0 |
| 30 | 0.30 | 3.29 | 0.00% | 27.6 | 0.4 |
| 30 | 0.60 | 3.28 | -0.30% | 29.7 | 2.5 |
| 30 | 0.90 | 3.27 | -0.61% | 34.3 | 7.1 |
| 30 | 1.20 | 3.26 | -0.91% | 42.8 | 15.6 |
| 30 | 1.50 | 3.22 | -2.13% | 47.1 | 19.9 |
| 30 | 1.80 | 3.15 | -4.26% | 54.3 | 27.1 |
| 30 | 2.10 | 2.97 | -9.73% | 59.2 | 32.0 |
| 30 | 2.40 | 2.38 | -27.66% | 68.8 | 41.6 |
| 30 | 2.70 | 1.15 | -65.05% | 83.5 | 56.3 |
| 30 | 3.00 | 0.69 | -79.03% | 103 | 75.8 |



# 承 认 书

## SPECIFICATION FOR APPROVAL

RoHS Compliance

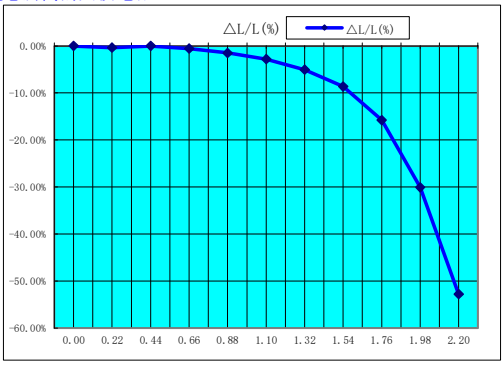
| | | | |
|---|---|---|---|
| CUSTOMER | | | |
| CUSTOMER'S P/N | | | |
| JINKAI P/N: | CKNR6012B-4R7MC | TEST R.H. | 80~85% |
| PART NO. | CKNR6012B Series | TEST TEMP. | 20~25℃ |
| DRAWN NO. | | DATE | 2025/3/18 |

## TEST DATA FOR PREPRODUCTION SAMPLE

| TEST RESOLUTION | | | | | | | | | DIMENSION (Unit：mm) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAS. ITEM | L<br>μh | DCR<br>mΩ | Isat<br>A | △L/L | Irms<br>A | | | | | 長<br>mm | 寬<br>mm | 高<br>mm |
| SPEC. | 4.7<br>±<br>20% | 220<br>Max. | 1.85<br>Max. | △L/L≦-30% | 1.50<br>△T≦40℃<br>℃ | | | | 上限<br>下限 | 6.2<br>5.8 | 6.2<br>5.8 | 1.2<br>MAX |
| TEST FREQ. | 100KHz/1V | | 100KHz/1V | | | | | | | | | |
| 1 | 5.12 | 171 | 4.50 | -12.11% | OK | | | | | 5.96 | 5.98 | 1.17 |
| 2 | 5.28 | 175 | 4.61 | -12.69% | OK | | | | | 5.97 | 5.96 | 1.13 |
| 3 | 5.26 | 173 | 4.58 | -12.93% | OK | | | | | 5.99 | 5.97 | 1.10 |
| 4 | 5.18 | 174 | 4.55 | -12.16% | OK | | | | | 5.98 | 6.03 | 1.14 |
| 5 | 5.31 | 174 | 4.58 | -13.75% | OK | | | | | 6.00 | 6.00 | 1.12 |
| 6 | 5.20 | 173 | 4.52 | -13.08% | OK | | | | | 5.97 | 5.99 | 1.14 |
| 7 | 5.16 | 173 | 4.47 | -13.37% | OK | | | | | 6.00 | 5.98 | 1.12 |
| 8 | 5.32 | 173 | 4.50 | -15.41% | OK | | | | | 5.99 | 5.97 | 1.15 |
| 9 | 5.21 | 174 | 4.58 | -12.09% | OK | | | | | 5.96 | 5.99 | 1.16 |
| 10 | 5.16 | 177 | 4.48 | -13.18% | OK | | | | | 6.00 | 5.98 | 1.15 |
| AVG. | **5.220** | **173.7** | **4.537** | **-13.08%** | | | | | | **5.982** | **5.985** | **1.138** |
| R | **0.2** | **6** | **0.14** | **3.32%** | | | | | | **0.04** | **0.07** | **0.07** |

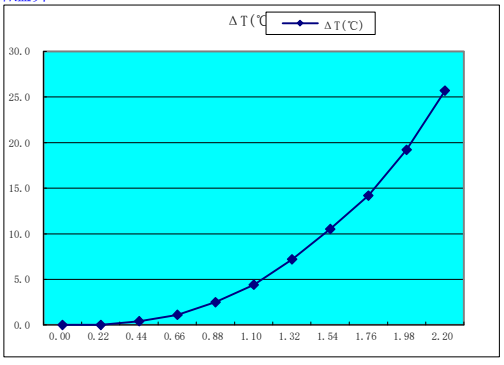
Isat(飽和電流):電感瞬間的突波電流

| TME(秒) | Lsat(A) | L(UH) | △L/L(%) |
|---|---|---|---|
| 1 | 0.00 | 5.32 | 0.00% |
| 1 | 0.22 | 5.30 | -0.38% |
| 1 | 0.44 | 5.32 | 0.00% |
| 1 | 0.66 | 5.29 | -0.56% |
| 1 | 0.88 | 5.24 | -1.50% |
| 1 | 1.10 | 5.17 | -2.82% |
| 1 | 1.32 | 5.05 | -5.08% |
| 1 | 1.54 | 4.86 | -8.65% |
| 1 | 1.76 | 4.48 | -15.79% |
| 1 | 1.98 | 3.72 | -30.08% |
| 1 | 2.20 | 2.51 | -52.82% |




單點溫昇

| TIME(S) | Irms(A) | L(uH) | ΔL/L(%) | Temp(℃) | ΔT(℃) |
|---|---|---|---|---|---|
| 30 | 0.00 | 5.36 | 0.00% | 26.6 | 0.0 |
| 30 | 0.22 | 5.35 | -0.19% | 26.6 | 0.0 |
| 30 | 0.44 | 5.35 | -0.19% | 27.0 | 0.4 |
| 30 | 0.66 | 5.33 | -0.56% | 27.7 | 1.1 |
| 30 | 0.88 | 5.32 | -0.75% | 29.1 | 2.5 |
| 30 | 1.10 | 5.25 | -2.05% | 31.0 | 4.4 |
| 30 | 1.32 | 5.14 | -4.10% | 33.8 | 7.2 |
| 30 | 1.54 | 4.87 | -9.14% | 37.1 | 10.5 |
| 30 | 1.76 | 4.33 | -19.22% | 40.8 | 14.2 |
| 30 | 1.98 | 3.10 | -42.16% | 45.8 | 19.2 |
| 30 | 2.20 | 1.85 | -65.49% | 52.3 | 25.7 |



# 承 认 书

## SPECIFICATION FOR APPROVAL

RoHS Compliance

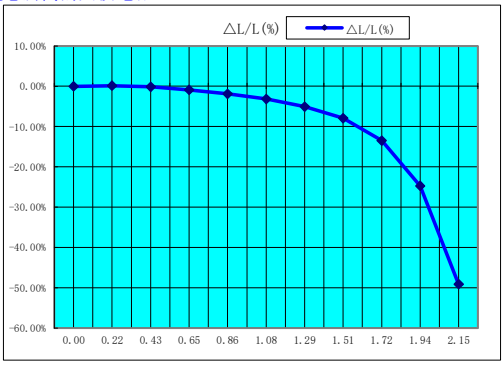
| | | | |
|---|---|---|---|
| CUSTOMER | | | |
| CUSTOMER'S P/N | | | |
| JINKAI P/N: | CKNR6012B-6R8MC | TEST R.H. | 80~85% |
| PART NO. | CKNR6012B Series | TEST TEMP. | 20~25℃ |
| DRAWN NO. | | DATE | 2025/3/18 |

## TEST DATA FOR PREPRODUCTION SAMPLE

| TEST RESOLUTION | | | | | | | | | DIMENSION (Unit：mm) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAS. ITEM | L μh | DCR mΩ | Isat A | △L/L | Irms A | | | | | 長 mm | 寬 mm | 高 mm |
| SPEC. | 6.8 ± 20% | 280 Max. | 1.60 Max. | △L/L≦-30% | 1.20 ΔT≦40℃ ℃ | | | | 上限 下限 | 6.2 5.8 | 6.2 5.8 | 1.2 MAX |
| TEST FREQ. | 100KHz/1V | | 100KHz/1V | | | | | | | | | |
| 1 | 6.40 | 201 | 5.62 | -12.19% | OK | | | | | 5.97 | 6.15 | 1.17 |
| 2 | 6.52 | 200 | 5.72 | -12.27% | OK | | | | | 5.97 | 6.10 | 1.14 |
| 3 | 6.50 | 199 | 5.71 | -12.15% | OK | | | | | 5.98 | 6.12 | 1.12 |
| 4 | 6.45 | 200 | 5.69 | -11.78% | OK | | | | | 5.97 | 6.10 | 1.12 |
| 5 | 6.36 | 200 | 5.62 | -11.64% | OK | | | | | 5.97 | 6.11 | 1.11 |
| 6 | 6.44 | 201 | 5.60 | -13.04% | OK | | | | | 5.99 | 6.05 | 1.15 |
| 7 | 6.50 | 198 | 5.68 | -12.62% | OK | | | | | 5.99 | 6.10 | 1.17 |
| 8 | 6.48 | 205 | 5.70 | -12.04% | OK | | | | | 6.00 | 6.11 | 1.16 |
| 9 | 6.32 | 202 | 5.62 | -11.08% | OK | | | | | 5.98 | 6.02 | 1.14 |
| 10 | 6.35 | 199 | 5.60 | -11.81% | OK | | | | | 6.01 | 6.07 | 1.13 |
| AVG. | **6.432** | **200.5** | **5.656** | **-12.06%** | | | | | | **5.983** | **6.0925** | **1.1411** |
| R | **0.2** | **7** | **0.12** | **1.97%** | | | | | | **0.04** | **0.13** | **0.06** |

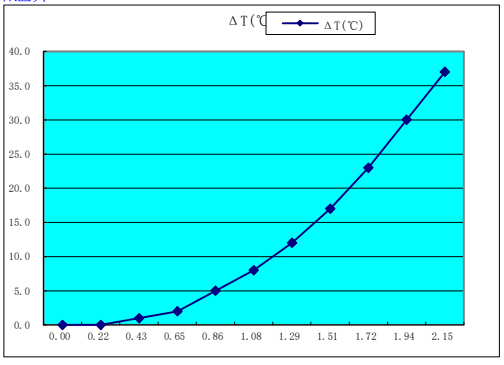
Isat(飽和電流):電感瞬間的突波電流

| TME(秒) | Lsat(A) | L(UH) | △L/L(%) |
|---|---|---|---|
| 1 | 0.00 | 6.96 | 0.00% |
| 1 | 0.22 | 6.97 | 0.14% |
| 1 | 0.43 | 6.95 | -0.14% |
| 1 | 0.65 | 6.90 | -0.86% |
| 1 | 0.86 | 6.83 | -1.87% |
| 1 | 1.08 | 6.74 | -3.16% |
| 1 | 1.29 | 6.61 | -5.03% |
| 1 | 1.51 | 6.41 | -7.90% |
| 1 | 1.72 | 6.02 | -13.51% |
| 1 | 1.94 | 5.24 | -24.71% |
| 1 | 2.15 | 3.54 | -49.14% |




單點溫昇

| TIME(S) | Irms(A) | L(uH) | ΔL/L(%) | Temp(℃) | ΔT(℃) |
|---|---|---|---|---|---|
| 30 | 0.00 | 7.03 | 0.00% | 29.0 | 0.0 |
| 30 | 0.22 | 7.03 | 0.00% | 29.0 | 0.0 |
| 30 | 0.43 | 6.97 | -0.85% | 30.0 | 1.0 |
| 30 | 0.65 | 6.96 | -1.00% | 31.0 | 2.0 |
| 30 | 0.86 | 6.82 | -2.99% | 34.0 | 5.0 |
| 30 | 1.08 | 6.72 | -4.41% | 37.0 | 8.0 |
| 30 | 1.29 | 6.58 | -6.40% | 41.0 | 12.0 |
| 30 | 1.51 | 6.32 | -10.10% | 46.0 | 17.0 |
| 30 | 1.72 | 5.79 | -17.64% | 52.0 | 23.0 |
| 30 | 1.94 | 4.63 | -34.14% | 59.0 | 30.0 |
| 30 | 2.15 | 2.93 | -58.32% | 66.0 | 37.0 |



# 承 认 书

## SPECIFICATION FOR APPROVAL

RoHS Compliance

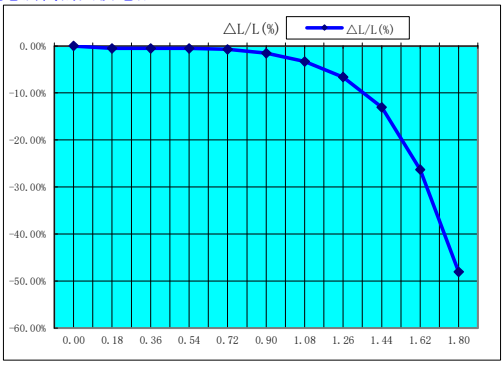
| | | | |
|---|---|---|---|
| CUSTOMER | | | |
| CUSTOMER'S P/N | | | |
| JINKAI P/N: | CKNR6012B-100MC | TEST R.H. | 80~85% |
| PART NO. | CKNR6012B Series | TEST TEMP. | 20~25℃ |
| DRAWN NO. | | DATE | 2025/3/18 |

### TEST DATA FOR PREPRODUCTION SAMPLE

| TEST RESOLUTION | | | | | | | | | | DIMENSION (Unit：mm) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAS. ITEM | L<br>μh | DCR<br>mΩ | Isat<br>A | △L/L | Irms<br>A | | | | | | 長<br>mm | 寬<br>mm | 高<br>mm |
| SPEC. | 10.0<br>±<br>20% | 371<br>Max. | 1.40<br>Max. | △L/L≦-30% | 1.10<br>△T≦40℃<br>℃ | | | | | 上限<br>下限 | 6.2<br>5.8 | 6.2<br>5.8 | 1.2<br>MAX |
| TEST FREQ. | 100KHz/1V | | 100KHz/1V | | | | | | | | | | |
| 1 | 9.23 | 285 | 8.18 | -11.38% | OK | | | | | | 6.00 | 5.97 | 1.08 |
| 2 | 9.68 | 286 | 8.25 | -14.77% | OK | | | | | | 5.95 | 6.00 | 1.09 |
| 3 | 9.43 | 284 | 8.50 | -9.86% | OK | | | | | | 6.00 | 6.02 | 1.12 |
| 4 | 9.34 | 286 | 8.45 | -9.53% | OK | | | | | | 5.99 | 6.02 | 1.11 |
| 5 | 9.52 | 289 | 8.56 | -10.08% | OK | | | | | | 5.97 | 59.40 | 1.10 |
| 6 | 9.62 | 287 | 8.64 | -10.19% | OK | | | | | | 5.99 | 5.97 | 1.09 |
| 7 | 9.51 | 285 | 8.62 | -9.36% | OK | | | | | | 6.00 | 6.02 | 1.10 |
| 8 | 9.43 | 282 | 8.51 | -9.76% | OK | | | | | | 5.96 | 6.05 | 1.09 |
| 9 | 9.61 | 289 | 8.58 | -10.72% | OK | | | | | | 6.02 | 5.98 | 1.11 |
| 10 | 9.37 | 287 | 8.49 | -9.39% | OK | | | | | | 5.99 | 5.99 | 1.10 |
| AVG. | **9.474** | **286** | **8.478** | **-10.50%** | | | | | | | **5.987** | **11.342** | **1.099** |
| R | **0.45** | **7** | **0.46** | **5.41%** | | | | | | | **0.07** | **53.43** | **0.04** |

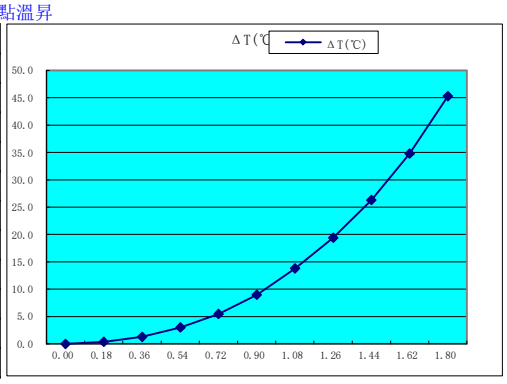
Isat(飽和電流):電感瞬間的突波電流

| TME(秒) | Lsat(A) | L(UH) | △L/L(%) |
|---|---|---|---|
| 1 | 0.00 | 9.66 | 0.00% |
| 1 | 0.18 | 9.61 | -0.52% |
| 1 | 0.36 | 9.61 | -0.52% |
| 1 | 0.54 | 9.61 | -0.52% |
| 1 | 0.72 | 9.59 | -0.72% |
| 1 | 0.90 | 9.51 | -1.55% |
| 1 | 1.08 | 9.34 | -3.31% |
| 1 | 1.26 | 9.02 | -6.63% |
| 1 | 1.44 | 8.40 | -13.04% |
| 1 | 1.62 | 7.12 | -26.29% |
| 1 | 1.80 | 5.02 | -48.03% |




單點溫昇

| TIME(S) | Irms(A) | L(uH) | ΔL/L(%) | Temp(℃) | ΔT(℃) |
|---|---|---|---|---|---|
| 30 | 0.00 | 9.80 | 0.00% | 27.3 | 0.0 |
| 30 | 0.18 | 9.80 | 0.00% | 27.7 | 0.4 |
| 30 | 0.36 | 9.80 | 0.00% | 28.6 | 1.3 |
| 30 | 0.54 | 9.75 | -0.51% | 30.3 | 3.0 |
| 30 | 0.72 | 9.75 | -0.51% | 32.8 | 5.5 |
| 30 | 0.90 | 9.59 | -2.14% | 36.3 | 9.0 |
| 30 | 1.08 | 9.26 | -5.51% | 41.1 | 13.8 |
| 30 | 1.26 | 8.50 | -13.27% | 46.7 | 19.4 |
| 30 | 1.44 | 6.80 | -30.61% | 53.6 | 26.3 |
| 30 | 1.62 | 4.20 | -57.14% | 62.1 | 34.8 |
| 30 | 1.80 | 3.02 | -69.18% | 72.6 | 45.3 |



# 承 认 书

## SPECIFICATION FOR APPROVAL

RoHS Compliance

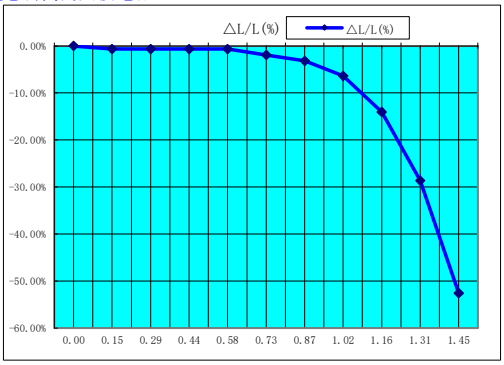
| | | | |
|---|---|---|---|
| CUSTOMER | | | |
| CUSTOMER'S P/N | | | |
| JINKAI P/N: | CKNR6012B-150MC | TEST R.H. | 80~85% |
| PART NO. | CKNR6012B Series | TEST TEMP. | 20~25℃ |
| DRAWN NO. | | DATE | 2025/3/18 |

## TEST DATA FOR PREPRODUCTION SAMPLE

| TEST RESOLUTION | | | | | | | | | | DIMENSION (Unit：mm) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAS. ITEM | L<br>μh | DCR<br>mΩ | Isat<br>A | △L/L | Irms<br>A | | | | | | 長<br>mm | 寬<br>mm | 高<br>mm |
| SPEC. | 15.0<br>±<br>20% | 659<br>Max. | 1.00<br>Max. | △L/L≦-30% | 0.65<br>△T≦40℃<br>℃ | | | | | 上限<br>下限 | 6.2<br>5.8 | 6.2<br>5.8 | 1.2<br>MAX |
| TEST FREQ. | 100KHz/1V | | 100KHz/1V | | | | | | | | | | |
| 1 | 16.6 | 548 | 14.5 | -12.65% | OK | | | | | | 6.01 | 6.03 | 1.10 |
| 2 | 16.9 | 553 | 14.8 | -12.43% | OK | | | | | | 5.96 | 5.94 | 1.10 |
| 3 | 16.7 | 545 | 14.3 | -14.37% | OK | | | | | | 6.01 | 6.02 | 1.08 |
| 4 | 16.7 | 548 | 14.2 | -14.97% | OK | | | | | | 5.96 | 5.95 | 1.09 |
| 5 | 16.7 | 547 | 14.2 | -14.97% | OK | | | | | | 5.95 | 5.98 | 1.09 |
| 6 | 16.6 | 550 | 14.5 | -12.65% | OK | | | | | | 6.00 | 5.99 | 1.10 |
| 7 | 16.6 | 548 | 14.5 | -12.65% | OK | | | | | | 5.98 | 5.98 | 1.11 |
| 8 | 16.4 | 544 | 14.3 | -12.80% | OK | | | | | | 5.99 | 6.00 | 1.08 |
| 9 | 16.8 | 546 | 14.7 | -12.50% | OK | | | | | | 5.97 | 6.01 | 1.12 |
| 10 | 16.4 | 543 | 14.3 | -12.80% | OK | | | | | | 5.99 | 5.99 | 1.11 |
| AVG. | **16.640** | **547.2** | **14.43** | **-13.28%** | | | | | | | **5.982** | **5.989** | **1.098** |
| R | **0.5** | **10** | **0.6** | **2.54%** | | | | | | | **0.06** | **0.09** | **0.04** |

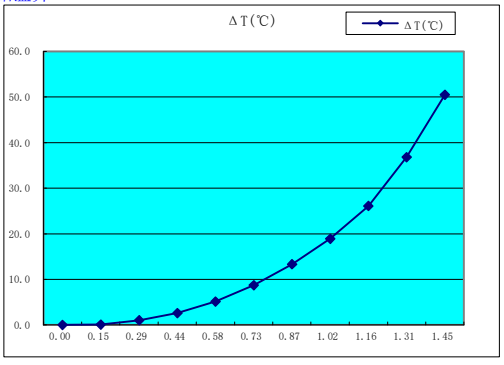
Isat(飽和電流):電感瞬間的突波電流

| TME(秒) | Lsat(A) | L(UH) | △L/L(%) |
|---|---|---|---|
| 1 | 0.00 | 15.7 | 0.00% |
| 1 | 0.15 | 15.6 | -0.64% |
| 1 | 0.29 | 15.6 | -0.64% |
| 1 | 0.44 | 15.6 | -0.64% |
| 1 | 0.58 | 15.6 | -0.64% |
| 1 | 0.73 | 15.4 | -1.91% |
| 1 | 0.87 | 15.2 | -3.18% |
| 1 | 1.02 | 14.7 | -6.37% |
| 1 | 1.16 | 13.5 | -14.01% |
| 1 | 1.31 | 11.2 | -28.66% |
| 1 | 1.45 | 7.45 | -52.55% |




單點溫昇

| TIME(S) | Irms(A) | L(uH) | ΔL/L(%) | Temp(℃) | ΔT(℃) |
|---|---|---|---|---|---|
| 30 | 0.00 | 15.2 | 0.00% | 29.7 | 0.0 |
| 30 | 0.15 | 15.2 | 0.00% | 29.8 | 0.1 |
| 30 | 0.29 | 15.2 | 0.00% | 30.7 | 1.0 |
| 30 | 0.44 | 15.1 | -0.66% | 32.3 | 2.6 |
| 30 | 0.58 | 15.1 | -0.66% | 34.8 | 5.1 |
| 30 | 0.73 | 14.1 | -7.24% | 38.4 | 8.7 |
| 30 | 0.87 | 14.6 | -3.95% | 43.0 | 13.3 |
| 30 | 1.02 | 13.9 | -8.55% | 48.6 | 18.9 |
| 30 | 1.16 | 12.2 | -19.74% | 55.8 | 26.1 |
| 30 | 1.31 | 8.49 | -44.14% | 66.5 | 36.8 |
| 30 | 1.45 | 4.49 | -70.46% | 80.2 | 50.5 |



# 承 认 书

## SPECIFICATION FOR APPROVAL

RoHS Compliance

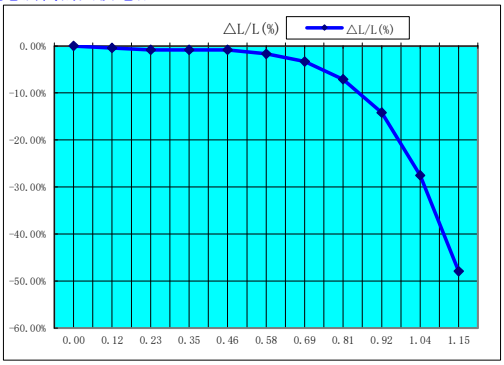
| | | | |
|---|---|---|---|
| CUSTOMER | | | |
| CUSTOMER'S P/N | | | |
| JINKAI P/N: | CKNR6012B-220MC | TEST R.H. | 80~85% |
| PART NO. | CKNR6012B Series | TEST TEMP. | 20~25℃ |
| DRAWN NO. | | DATE | 2025/3/18 |

### TEST DATA FOR PREPRODUCTION SAMPLE

| TEST RESOLUTION | | | | | | | | | DIMENSION (Unit：mm) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAS. ITEM | L μh | DCR mΩ | Isat A | △L/L | Irms A | | | | | 長 mm | 寬 mm | 高 mm |
| SPEC. | 22.0 ± 20% | 784 Max. | 0.9 Max. | △L/L≦-30% | 0.60 △T≦40℃ ℃ | | | | 上限 下限 | 6.2 5.8 | 6.2 5.8 | 1.2 MAX |
| TEST FREQ. | 100KHz/1V | | 100KHz/1V | | | | | | | | | |
| 1 | 21.6 | 627 | 16.5 | -23.6% | OK | | | | | 6.01 | 6.03 | 1.10 |
| 2 | 21.0 | 617 | 16.6 | -21.0% | OK | | | | | 5.96 | 5.94 | 1.10 |
| 3 | 20.9 | 613 | 16.5 | -21.1% | OK | | | | | 6.01 | 6.02 | 1.08 |
| 4 | 21.1 | 608 | 16.5 | -21.8% | OK | | | | | 5.96 | 5.95 | 1.09 |
| 5 | 21.2 | 598 | 16.8 | -20.8% | OK | | | | | 5.95 | 5.98 | 1.09 |
| 6 | 21.3 | 606 | 16.5 | -22.5% | OK | | | | | 6.00 | 5.99 | 1.10 |
| 7 | 22.0 | 613 | 16.8 | -23.6% | OK | | | | | 5.98 | 5.98 | 1.11 |
| 8 | 21.9 | 623 | 16.9 | -22.8% | OK | | | | | 5.99 | 6.00 | 1.08 |
| 9 | 21.6 | 620 | 16.9 | -21.8% | OK | | | | | 5.97 | 6.01 | 1.12 |
| 10 | 21.7 | 627 | 16.6 | -23.5% | OK | | | | | 5.99 | 5.99 | 1.11 |
| AVG. | **21.430** | **615.2** | **16.66** | **-22.24%** | | | | | | **5.982** | **5.989** | **1.098** |
| R | **1.1** | **29** | **0.4** | **2.88%** | | | | | | **0.06** | **0.09** | **0.04** |

Isat(飽和電流):電感瞬間的突波電流

| TME(秒) | Lsat(A) | L(UH) | △L/L(%) |
|---|---|---|---|
| 1 | 0.00 | 24.0 | 0.00% |
| 1 | 0.12 | 23.9 | -0.42% |
| 1 | 0.23 | 23.8 | -0.83% |
| 1 | 0.35 | 23.8 | -0.83% |
| 1 | 0.46 | 23.8 | -0.83% |
| 1 | 0.58 | 23.6 | -1.67% |
| 1 | 0.69 | 23.2 | -3.33% |
| 1 | 0.81 | 22.3 | -7.08% |
| 1 | 0.92 | 20.6 | -14.17% |
| 1 | 1.04 | 17.4 | -27.50% |
| 1 | 1.15 | 12.5 | -47.92% |




單點溫昇

| TIME(S) | Irms(A) | L(uH) | ΔL/L(%) | Temp(℃) | ΔT(℃) |
|---|---|---|---|---|---|
| 30 | 0.00 | 23.8 | 0.00% | 31.5 | 0.0 |
| 30 | 0.12 | 23.8 | 0.00% | 31.5 | 0.0 |
| 30 | 0.23 | 23.8 | 0.00% | 32.1 | 0.6 |
| 30 | 0.35 | 23.7 | -0.42% | 33.3 | 1.8 |
| 30 | 0.46 | 23.6 | -0.84% | 35.5 | 4.0 |
| 30 | 0.58 | 23.4 | -1.68% | 38.5 | 7.0 |
| 30 | 0.69 | 22.9 | -3.78% | 42.6 | 11.1 |
| 30 | 0.81 | 21.9 | -7.98% | 47.4 | 15.9 |
| 30 | 0.92 | 19.5 | -18.07% | 53.6 | 22.1 |
| 30 | 1.04 | 14.8 | -37.82% | 61.7 | 30.2 |
| 30 | 1.15 | 8.86 | -62.77% | 70.9 | 39.4 |

