

承 认 书

SPECIFICATION FOR APPROVAL

CUSTOMER			
CUSTOMER'S P/N			
DATE	13/Mar/2025	REVISION NO.	A
PART NO.	CKNR5020B 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	
13/Mar/2025	13/Mar/2025	13/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



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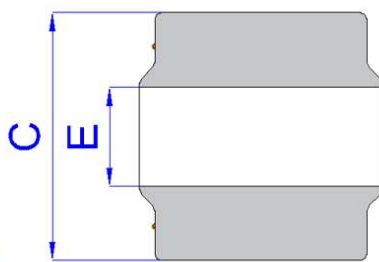
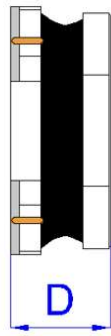
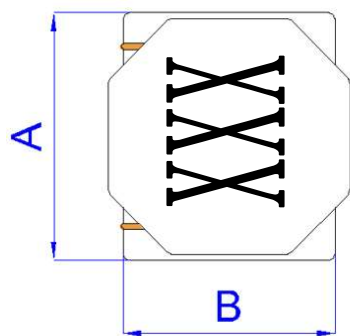
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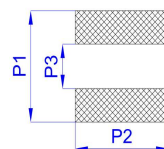
CUSTOMER	0	REVISION NO.	A
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PART NO.	CKNR5020B Series	DATE	2025/3/13

1.SHAPE & DIMENSION

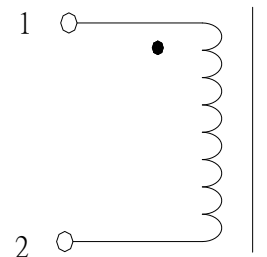
UNIT: mm



Recommended Pad



SCHEMATICS



MARKING
COLOR

Black

A	B	C	D	E	P1	P2	P3
5	5	5	2.0	2.5	5.2	4.7	2.4
±0.2	±0.2	±0.2	MAX	±0.3	Ref.	Ref.	Ref.

CK NR 5020 B - 2R2 M C

1 2 3 4 5 6 7

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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PART NO.	CKNR5020B Series	DATE	2025/3/13

2.SERIES SPECIFICATION

◆CKNR5020B Series

Specification:

Part Number	Inductance	Test Freq	DCR(mΩ)		Saturation Current (A)		Temp. Rise Current (A)	
	(μH)		Max	Typ	Max	Typ	Max	Typ
CKNR5020-R22NC	0.22	100KHz/1V	11	9	9.0	12.0	5.3	6.0
CKNR5020-R24NC	0.24		11	9	8.0	10.0	5.3	6.0
CKNR5020-R47NC	0.47		17	13	6.2	6.7	4.6	5.0
CKNR5020-R68NC	0.68		22	17	5.5	6.0	4.0	4.4
CKNR5020-1R0NC	1.0		26	20	4.1	5.0	3.8	4.1
CKNR5020-1R5NC	1.5		34	26	4.1	4.5	3.2	3.5
CKNR5020-2R2NC	2.2		42	32	3.2	4.0	2.9	3.1
CKNR5020-3R3NC	3.3		56	43	2.6	3.0	2.5	2.7
CKNR5020-4R7MC	4.7		74	57	2.5	2.7	2.2	2.4
CKNR5020-6R8MC	6.8		108	83	2.1	2.2	1.8	1.9
CKNR5020-8R2MC	8.2		127	98	1.9	2.0	1.7	1.8
CKNR5020-100MC	10		143	110	1.7	1.8	1.6	1.7
CKNR5020-120MC	12		182	140	1.5	1.6	1.4	1.5
CKNR5020-150MC	15		215	165	1.4	1.4	1.3	1.3
CKNR5020-180MC	18		260	200	1.3	1.3	1.2	1.2
CKNR5020-220MC	22		294	226	1.2	1.2	1.1	1.2
CKNR5020-330MC	33		507	390	0.9	1.0	0.9	1.0
CKNR5020-470MC	47		680	523	0.8	0.8	0.8	0.8
CKNR5020-680MC	68		962	740	0.7	0.7	0.6	0.7
CKNR5020-820MC	82		1158	965	0.7	0.8	0.5	0.6
CKNR5020-101MC	100		1430	1100	0.5	0.6	0.5	0.6
CKNR5020-121MC	120		1755	1350	0.4	0.5	0.4	0.5
CKNR5020-201MC	200		2600	2000	0.3	0.3	0.4	0.5

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PART NO.	CKNR5020B Series	DATE	2025/3/13

3.MATERIAL LIST & GENERAL SPECIFICATION

◆TEST CONDITION

ITEM	TEST CONDITION	TEST INSTRUMENCS
L	100KHz/1V	Microtest 6377
Isat		TH1773+Microtest 6377
Irms		
DCR	25±5℃	TH2512B

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 equvaleNC	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℃

*The operating temperature is 25℃

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

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

*For CKNR5020B Series size inductors,absolute maximum voltage: I 50 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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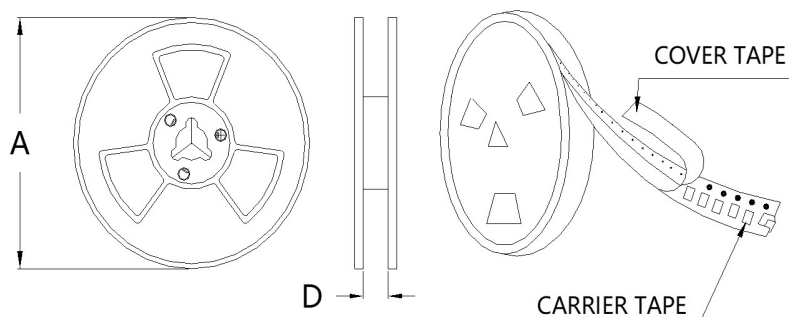
4.PACKAGING(unit: mm)

1.包装类型

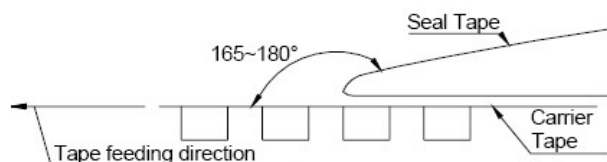
2.包装尺寸

13" 盘

7" 盘



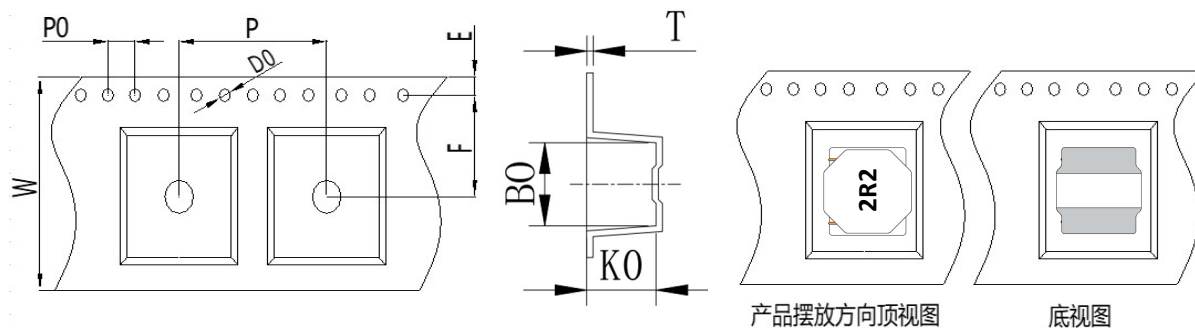
	13" 盘	7" 盘
A	$\Phi 330 \pm 2.0$	$\Phi 178 \pm 2.0$
D	12.4	



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)	12± 0.3	3.05± 0.15	8.0± 0.1	0.3± 0.05	1.75± 0.1	5.5± 0.1	1.5± 0.1	4.0± 0.1	2.35± 0.1	

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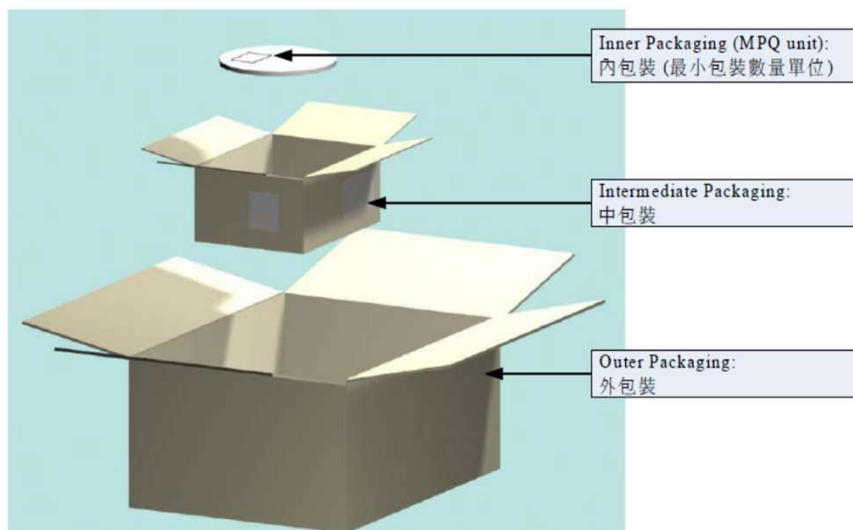


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5. CARTON



- 1.1 外箱: 36*36*23 cm 一箱装 2内箱
- 1.2 内箱: 33.5*33.5*9 cm 一箱装5卷制品
- 1.3 外箱材质: A三A
- 1.4 内箱材质: A=A
- 1.5 每4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
(如: 客户有特殊要求时, 则依客户要求实施.)

备注: 如果捆包数量小于内箱捆包数量时就用内箱包装

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	2500	PCS
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内箱包装数量

每箱	5	卷,共	12500	PCS
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外箱包装数量

每箱	10	卷,共	25000	PCS
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6. RELIABILITY TEST

Test Items	Test Conditions	Criteria
1 Low temperature storage	Placed at -40°C for 500 hours, then measured at room ambient temperature after placing 24 hours	Inductance shall be within $\pm 10\%$ of the initial value.
2 High temperature storage	Placed at +125°C 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: -40°C, 30min. ~ +125°C, 30min Number of cycles: 5	Inductance shall be within $\pm 10\%$ of the initial value.
4 Humidity resistance	Placed at 90 to 95%RH, +50°C for 500 hours, then measured at room ambient temperature after placing 24 hours.	Inductance shall be within $\pm 10\%$ of the initial value. Insulation resistance > 100M Ω 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 Amplitude: 1.5mm or 10G Sweep time: 1 oct/min Test Directions: X, Y, Z 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 $\pm$ 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: 1) 260 $\pm$ 5°C, 10 $\pm$ 1 sec, 2) 350 $\pm$ 10°C, 3.5 $\pm$ 0.5 sec	Inductance shall be within $\pm 10\%$ of the initial value. Appearance: No damage

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7. SOLDERING CONDITIONS

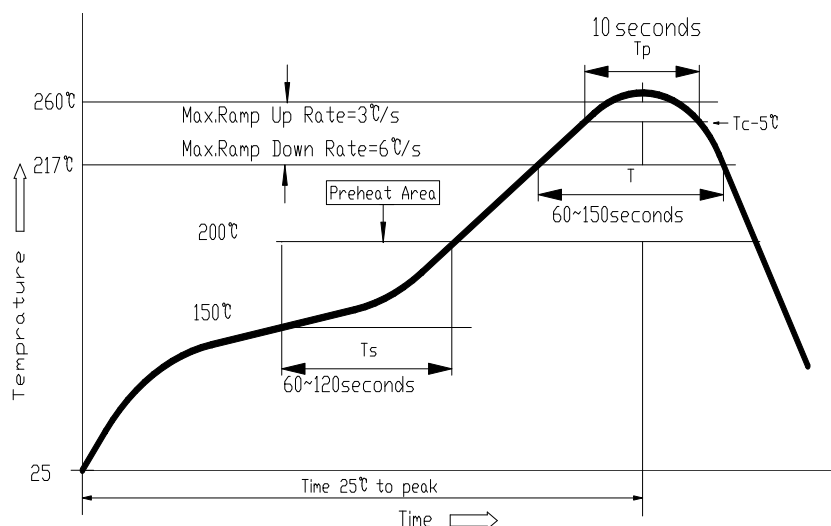
Applicable soldering process to the products is refl.

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 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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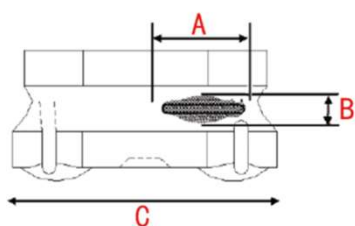
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8.Appearance of the standard

1.Void appearance tolerance limit



Size of voids occurring to coating resin is specified below.

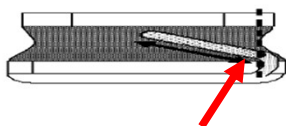
①Width direction(dimension A): Acceptable when $A \leq C/2$

Nonconforming when $B \geq C/2$

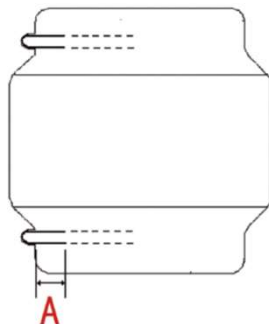
②Length direction(dimension B):Dimension b is not specified

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 $A \leq 0.8\text{mm}$

②Nonconforming when $A > 0.8\text{mm}$

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承认书



SPECIFICATION FOR APPROVAL

CUSTOMER

CUSTOMER'S P/N

JINKAI P/N: CKNR5020B-1R0YC

PART NO. CKNR5020B Series

DRAWN NO.

TEST R.H. 80~85%

TEST TEMP. 20~25℃

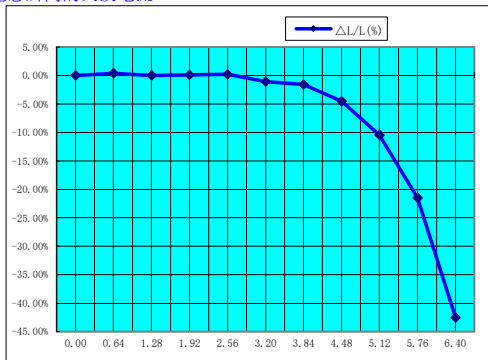
DATE 2025/3/13

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.	1.00 ± 30%	26 Max.	4.10 Max.	△L/L≤-30%	3.80 △T≤40℃ ℃				上限 下限	5.2 4.8	5.2 4.8	2.0 MAX
TEST FREQ.	1MHz/1V		100KHz/1V									
1	0.96	20.8	0.90	-6.25%	OK				5.02	5.01	1.89	
2	0.95	21.4	0.90	-5.26%	OK				5.02	5.08	1.90	
3	0.97	21.8	0.89	-8.25%	OK				5.03	5.06	1.95	
4	0.98	21.5	0.89	-9.18%	OK				5.05	5.01	1.92	
5	0.94	20.7	0.90	-4.26%	OK				5.00	5.08	1.95	
6	0.95	21.0	0.87	-8.42%	OK				5.00	5.01	1.89	
7	0.95	21.5	0.85	-10.53%	OK				5.00	5.08	1.92	
8	0.99	21.0	0.90	-9.09%	OK				5.04	5.06	1.94	
9	1.00	20.8	0.90	-10.00%	OK				5.04	5.01	1.95	
10	0.98	20.4	0.85	-13.27%	OK				5.06	5.03	1.95	
AVG.	0.967	21.09	0.885	-8.45%					5.026	5.043	1.926	
R	0.06	1.4	0.05	9.01%					0.06	0.07	0.06	

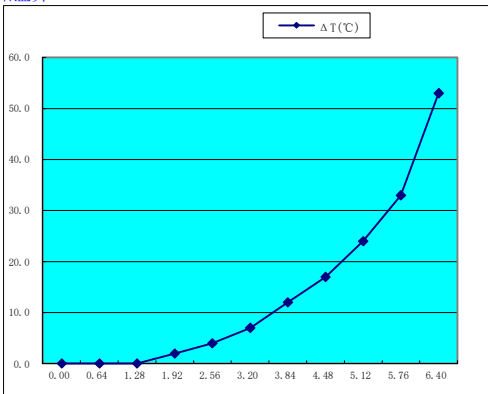
Isat(飽和電流):電感瞬間的突波電流

TME(秒)	Lsat(A)	L(UH)	Δ L/L(%)
1	0.00	0.995	0.00%
1	0.64	0.999	0.40%
1	1.28	0.995	0.00%
1	1.92	0.996	0.10%
1	2.56	0.997	0.20%
1	3.20	0.984	-1.11%
1	3.84	0.979	-1.61%
1	4.48	0.950	-4.52%
1	5.12	0.891	-10.45%
1	5.76	0.781	-21.51%
1	6.40	0.572	-42.51%



單點溫昇

TIME(S)	Irms(A)	L(uH)	Δ L/L(%)	Temp(℃)	Δ T(℃)
30	0.00	0.961	0.00%	30	0.0
30	0.64	0.962	0.10%	30	0.0
30	1.28	0.962	0.10%	30	0.0
30	1.92	0.958	-0.31%	32	2.0
30	2.56	0.957	-0.42%	34	4.0
30	3.20	0.953	-0.83%	37	7.0
30	3.84	0.941	-2.08%	42	12.0
30	4.48	0.913	-4.99%	47	17.0
30	5.12	0.848	-11.76%	54	24.0
30	5.76	0.691	-28.10%	63	33.0
30	6.40	0.331	-65.56%	83	53.0



CUSTOMER

CUSTOMER'S P/N

JINKAL P/N: CKNR5020B-1R5YC

PART NO. CKNR5020B Series

DRAWN NO.

TEST R.H. 80~85%

TEST TEMP. 20~25°C

DATE 2025/3/13

TEST RESOLUTION									DIMENSION (Unit : mm)			
MEAS. ITEM	L μh	DCR mΩ	Isat A	ΔL/L	Irms A					長 mm	寬 mm	高 mm
SPEC.	1.5 ± 30%	39 Max.	4.10 Max.	ΔL/L≤-30%	3.20 ΔT≤40℃ ℃				上限 下限	5.2 4.8	5.2 4.8	2.0 MAX
TEST FREQ.	1MHz/1V		100KHz/1V									
1	1.58	28.2	1.29	-18.35%	OK					5.00	5.01	1.89
2	1.40	27.3	1.20	-14.29%	OK					5.00	5.08	1.90
3	1.55	29.5	1.28	-17.42%	OK					5.00	5.06	1.92
4	1.54	27.9	1.30	-15.58%	OK					5.00	5.01	1.95
5	1.52	30.3	1.28	-15.79%	OK					4.99	5.08	1.88
6	1.54	28.8	1.25	-18.83%	OK					4.99	5.01	1.84
7	1.49	29.0	1.25	-16.11%	OK					5.03	5.08	1.84
8	1.48	28.5	1.29	-12.84%	OK					5.06	5.06	1.86
9	1.42	28.1	1.21	-14.79%	OK					5.05	5.01	1.90
10	1.42	28.7	1.20	-15.49%	OK					5.00	5.03	1.92
AVG.	1.494	28.63	1.255	-15.95%						5.012	5.043	1.89
R	0.18	3	0.1	5.99%						0.07	0.07	0.11

TME(秒)	Lsat(A)	L(UH)	$\Delta L/L(\%)$
1	0.00	1.59	0.00%
1	0.54	1.58	-0.63%
1	1.08	1.58	-0.63%
1	1.62	1.57	-1.26%
1	2.16	1.55	-2.52%
1	2.70	1.53	-3.77%
1	3.24	1.48	-6.92%
1	3.78	1.41	-11.32%
1	4.32	1.28	-19.50%
1	4.86	1.06	-33.33%
1	5.40	0.71	-55.35%

The graph plots the percentage change in inductance, $\Delta L/L(\%)$, against the saturation current, $L_{sat}(A)$, for a fixed time $TME = 1s$. The data points from the table are plotted, showing a non-linear decrease in inductance as the saturation current increases. The curve starts at (0.00, 0.00%) and ends at (5.40, -55.35%).

TIME(S)	I _{rms} (A)	L(μH)	ΔL/L(%)	Temp(°C)	ΔT(°C)
30	0.00	1.55	0.00%	30	0.0
30	0.54	1.53	-1.29%	30	0.2
30	1.08	1.52	-1.94%	31	1.0
30	1.62	1.51	-2.58%	33	2.6
30	2.16	1.50	-3.23%	35	4.9
30	2.70	1.48	-4.52%	38	8.1
30	3.24	1.44	-7.10%	42	12.2
30	3.78	1.36	-12.26%	48	17.7
30	4.32	1.22	-21.29%	55	24.6
30	4.86	0.95	-38.71%	63	32.9
30	5.40	0.53	-65.81%	73	42.6

The graph shows the relationship between the RMS current I_{rms} (A) on the x-axis and the temperature change ΔT (°C) on the y-axis. The data points are plotted as blue diamonds connected by a blue line. The temperature increase is non-linear and accelerates as the current increases, starting from 0.0 °C at 0.00 A and reaching 42.6 °C at 5.40 A.

承认书



SPECIFICATION FOR APPROVAL

CUSTOMER

CUSTOMER'S P/N

JINKAI P/N: CKNR5020B-2R2MC

PART NO. CKNR5020B Series

DRAWN NO.

TEST R.H. 80~85%

TEST TEMP. 20~25℃

DATE 2025/3/13

TEST DATA FOR PREPRODUCTION SAMPLE

TEST RESOLUTION						DIMENSION (Unit : mm)		
MEAS. ITEM	L μh	DCR mΩ	Isat A	ΔL/L	Irms A			
SPEC.	2.2 ± 20%	58 Max.	3.20 Max.	ΔL/L≤-30%	2.90 ΔT≤40℃ ℃			
TEST FREQ.	1MHz/1V		100KHz/1V					
1	2.12	34.3	1.86	-12.26%	OK		4.99	5.00
2	2.12	34.0	1.86	-12.26%	OK		5.02	5.00
3	2.04	34.1	1.85	-9.31%	OK		5.01	5.00
4	2.09	33.0	1.87	-10.53%	OK		5.02	5.00
5	2.07	33.5	1.86	-10.14%	OK		5.00	5.01
6	2.04	33.3	1.85	-9.31%	OK		5.05	4.99
7	2.11	34.8	1.85	-12.32%	OK		5.02	4.98
8	2.09	33.0	1.86	-11.00%	OK		5.00	5.01
9	2.09	34.4	1.88	-10.05%	OK		5.00	5.02
10	2.07	33.1	1.86	-10.14%	OK		5.00	5.00
AVG.	2.084	33.75	1.86	-10.73%			5.011	5.001
R	0.08	1.8	0.03	3.01%			0.06	0.04

Isat(飽和電流):電感瞬間の突波電流			
TME(秒)	Lsat(A)	L(UH)	ΔL/L(%)
1	0.00	2.21	0.00%
1	0.45	2.21	0.00%
1	0.90	2.20	-0.45%
1	1.35	2.17	-1.81%
1	1.80	2.17	-1.81%
1	2.25	2.14	-3.17%
1	2.70	2.08	-5.88%
1	3.15	1.98	-10.41%
1	3.60	1.81	-18.10%
1	4.05	1.55	-29.86%
1	4.50	1.19	-46.15%

單點溫昇					
TIME(S)	Irms(A)	L(uH)	ΔL/L(%)	Temp(℃)	ΔT(℃)
30	0.00	2.17	0.00%	30	0.0
30	0.45	2.19	0.92%	30	0.0
30	0.90	2.19	0.92%	30	0.0
30	1.35	2.17	0.00%	32	2.0
30	1.80	2.15	-0.92%	34	4.0
30	2.25	2.11	-2.76%	37	7.0
30	2.70	2.05	-5.53%	40	10.0
30	3.15	1.93	-11.06%	44	14.0
30	3.60	1.70	-21.66%	50	20.0
30	4.05	1.30	-40.09%	57	27.0
30	4.50	0.79	-63.59%	65	35.0

承 認 书



SPECIFICATION FOR APPROVAL

CUSTOMER

CUSTOMER'S P/N

JINKAI P/N: CKNR5020B-3R3MC

PART NO. CKNR5020B Series

DRAWN NO.

TEST R.H. 80~85%

TEST TEMP. 20~25℃

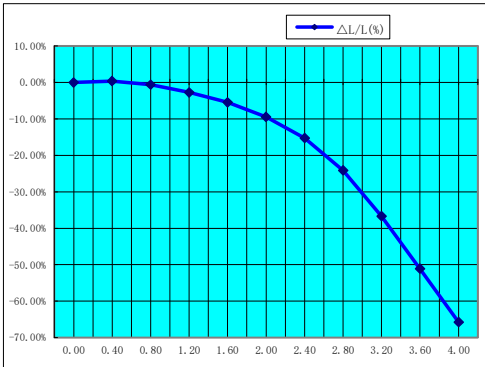
DATE 2025/3/13

TEST DATA FOR PREPRODUCTION SAMPLE

TEST RESOLUTION								DIMENSION (Unit : mm)			
MEAS. ITEM	L μh	DCR mΩ	Isat A	ΔL/L	Irms A				長 mm	寬 mm	高 mm
SPEC.	3.3 ± 20%	55 Max.	2.55 Max.	ΔL/L≤-30%	2.50 ΔT≤40℃ ℃				上限 4.8	5.2 4.8	2.0 MAX
TEST FREQ.	1MHz/1V		100KHz/1V								
1	3.29	40.4	2.70	-17.9%	OK				4.99	5.00	1.90
2	3.25	40.3	2.64	-18.8%	OK				5.02	5.00	1.95
3	3.30	40.9	2.72	-17.6%	OK				5.01	5.00	1.92
4	3.24	40.7	2.71	-16.4%	OK				5.02	5.00	1.92
5	3.22	40.8	2.68	-16.8%	OK				5.00	5.01	1.95
6	3.31	39.8	2.70	-18.4%	OK				5.05	4.99	1.96
7	3.26	40.2	2.71	-16.9%	OK				5.02	4.98	1.93
8	3.23	40.5	2.73	-15.5%	OK				5.00	5.01	1.89
9	3.26	40.7	2.70	-17.2%	OK				5.00	5.02	1.88
10	3.24	40.1	2.71	-16.4%	OK				5.00	5.00	1.94
AVG.	3.260	40.44	2.7	-17.17%					5.011	5.001	1.924
R	0.09	1.1	0.09	3.29%					0.06	0.04	0.08

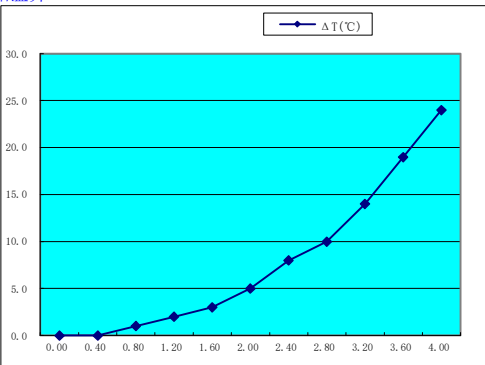
Isat(飽和電流):電感瞬間的突波電流

TME(秒)	Lsat(A)	L(UH)	ΔL/L(%)
1	0.00	3.27	0.00%
1	0.40	3.28	0.31%
1	0.80	3.25	-0.61%
1	1.20	3.18	-2.75%
1	1.60	3.09	-5.50%
1	2.00	2.96	-9.48%
1	2.40	2.77	-15.29%
1	2.80	2.48	-24.16%
1	3.20	2.07	-36.70%
1	3.60	1.60	-51.07%
1	4.00	1.12	-65.75%



單點溫昇

TIME(S)	Irms(A)	L(uH)	ΔL/L(%)	Temp(℃)	ΔT(℃)
30	0.00	3.17	0.00%	29	0.0
30	0.40	3.20	0.95%	29	0.0
30	0.80	3.16	-0.32%	30	1.0
30	1.20	3.10	-2.21%	31	2.0
30	1.60	3.00	-5.36%	32	3.0
30	2.00	2.88	-9.15%	34	5.0
30	2.40	2.69	-15.14%	37	8.0
30	2.80	2.38	-24.92%	39	10.0
30	3.20	1.93	-39.12%	43	14.0
30	3.60	1.40	-55.84%	48	19.0
30	4.00	0.90	-71.61%	53	24.0



承 認 书



SPECIFICATION FOR APPROVAL

CUSTOMER

CUSTOMER'S P/N

JINKAI P/N: CKNR5020B-4R7MC

PART NO. CKNR5020B Series

DRAWN NO.

TEST R.H. 80~85%

TEST TEMP. 20~25°C

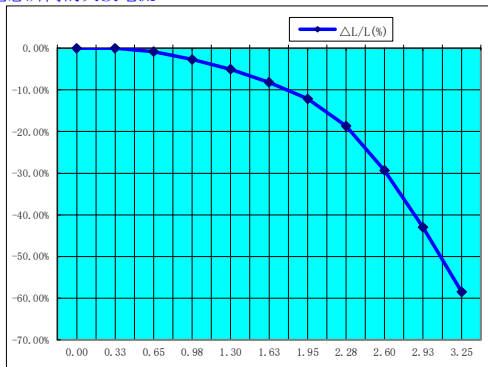
DATE 2025/3/13

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.	4.7 ± 20%	74.1 Max.	2.50 Max.	△L/L≤-30%	2.20 ΔT≤40℃ ℃			上限 下限	5.2 4.8	5.2 4.8	2.0 MAX
TEST FREQ.	1MHz/1V		100KHz/1V								
1	4.35	57.0	3.62	-16.78%	OK				4.99	5.00	1.90
2	4.42	57.5	3.62	-18.10%	OK				5.02	5.00	1.95
3	4.42	58.6	3.65	-17.42%	OK				5.01	5.00	1.92
4	4.20	59.3	3.63	-13.57%	OK				5.02	5.00	1.92
5	4.28	56.1	3.70	-13.55%	OK				5.00	5.01	1.95
6	4.34	59.1	3.65	-15.90%	OK				5.05	4.99	1.96
7	4.35	56.7	3.62	-16.78%	OK				5.02	4.98	1.93
8	4.35	56.7	3.66	-15.86%	OK				5.00	5.01	1.89
9	4.42	56.7	3.59	-18.78%	OK				5.00	5.02	1.88
10	4.32	56.9	3.62	-16.20%	OK				5.00	5.00	1.94
AVG.	4.345	57.46	3.636	-16.29%					5.011	5.001	1.924
R	0.22	3.2	0.11	5.23%					0.06	0.04	0.08

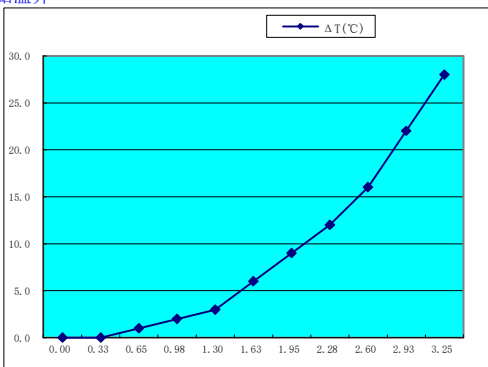
Isat(飽和電流):電感瞬間的突波電流

TME(秒)	Lsat(A)	L(UH)	ΔL/L(%)
1	0.00	4.77	0.00%
1	0.33	4.77	0.00%
1	0.65	4.73	-0.84%
1	0.98	4.64	-2.73%
1	1.30	4.53	-5.03%
1	1.63	4.38	-8.18%
1	1.95	4.19	-12.16%
1	2.28	3.88	-18.66%
1	2.60	3.37	-29.35%
1	2.93	2.72	-42.98%
1	3.25	1.98	-58.49%



單點溫昇

TIME(S)	Irms(A)	L(uH)	ΔL/L(%)	Temp(°C)	ΔT(°C)
30	0.00	4.67	0.00%	30	0.0
30	0.33	4.69	0.43%	30	0.0
30	0.65	4.65	-0.43%	31	1.0
30	0.98	4.56	-2.36%	32	2.0
30	1.30	4.44	-4.93%	33	3.0
30	1.63	4.29	-8.14%	36	6.0
30	1.95	4.08	-12.63%	39	9.0
30	2.28	3.72	-20.34%	42	12.0
30	2.60	3.10	-33.62%	46	16.0
30	2.93	2.26	-51.61%	52	22.0
30	3.25	1.52	-67.45%	58	28.0



承认书



SPECIFICATION FOR APPROVAL

CUSTOMER

CUSTOMER'S P/N

JINKAI P/N: CKNR5020B-100MC

PART NO. CKNR5020B Series

DRAWN NO.

TEST R.H. 80~85%

TEST TEMP. 20~25°C

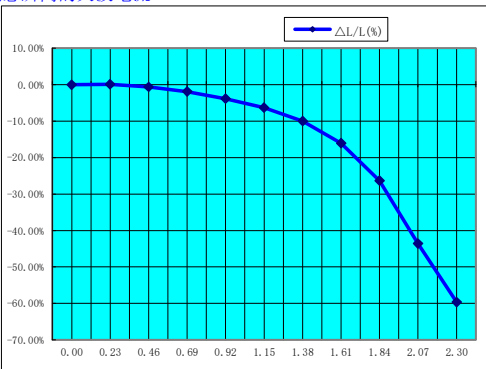
DATE 2025/3/13

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.	10.0	141	1.7	△L/L≤-30%	1.55			上限	5.2	5.2	2.0
	± 20%	Max.	Max.		ΔT≤40℃ ℃			下限	4.8	4.8	MAX
TEST FREQ.	1MHz/1V		100KHz/1V								
1	9.98	121	8.31	-16.73%	OK				4.99	5.00	1.90
2	9.79	124	8.18	-16.45%	OK				5.02	5.00	1.95
3	9.57	123	8.08	-15.57%	OK				5.01	5.00	1.92
4	9.78	122	8.32	-14.93%	OK				5.02	5.00	1.92
5	9.66	119	8.23	-14.80%	OK				5.00	5.01	1.95
6	9.94	122	8.22	-17.30%	OK				5.05	4.99	1.96
7	9.60	121	8.29	-13.65%	OK				5.02	4.98	1.93
8	9.65	120	8.21	-14.92%	OK				5.00	5.01	1.89
9	9.93	124	8.26	-16.82%	OK				5.00	5.02	1.88
10	9.77	123	8.26	-15.46%	OK				5.00	5.00	1.94
AVG.	9.767	121.9	8.236	-15.66%					5.011	5.001	1.924
R	0.41	5	0.24	3.66%					0.06	0.04	0.08

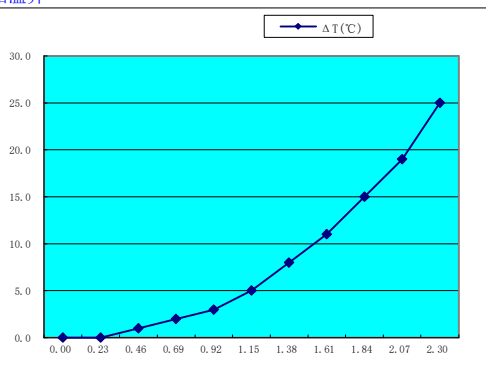
Isat(飽和電流):電感瞬間の突波電流

TME(秒)	Lsat(A)	L(UH)	ΔL/L(%)
1	0.00	9.96	0.00%
1	0.23	9.97	0.10%
1	0.46	9.90	-0.60%
1	0.69	9.77	-1.91%
1	0.92	9.58	-3.82%
1	1.15	9.33	-6.33%
1	1.38	8.96	-10.04%
1	1.61	8.36	-16.06%
1	1.84	7.34	-26.31%
1	2.07	5.62	-43.57%
1	2.30	4.02	-59.64%



單點溫昇

TIME(S)	Irms(A)	L(uH)	ΔL/L(%)	Temp(°C)	ΔT(°C)
30	0.00	9.80	0.00%	30	0.0
30	0.23	9.81	0.10%	30	0.0
30	0.46	9.73	-0.71%	31	1.0
30	0.69	9.58	-2.24%	32	2.0
30	0.92	9.38	-4.29%	33	3.0
30	1.15	9.12	-6.94%	35	5.0
30	1.38	8.72	-11.02%	38	8.0
30	1.61	8.06	-17.76%	41	11.0
30	1.84	6.90	-29.59%	45	15.0
30	2.07	5.00	-48.98%	49	19.0
30	2.30	3.29	-66.43%	55	25.0



承认书



SPECIFICATION FOR APPROVAL

CUSTOMER

CUSTOMER'S P/N

JINKAI P/N: CKNR5020B-180MC

PART NO. CKNR5020B Series

DRAWN NO.

TEST R.H. 80~85%

TEST TEMP. 20~25°C

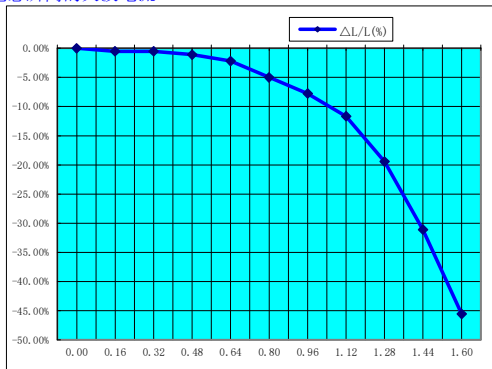
DATE 2025/3/13

TEST DATA FOR PREPRODUCTION SAMPLE

TEST RESOLUTION								DIMENSION (Unit : mm)				
MEAS. ITEM	L μh	DCR mΩ	Isat A	ΔL/L	Irms A					長 mm	寬 mm	高 mm
SPEC.	18.0	266	1.1	ΔL/L≤-30%	1.20				上限	5.2	5.2	2.0
	± 20%	Max.	Max.		ΔT≤40℃ ℃				下限	4.8	4.8	MAX
TEST FREQ.	1MHz/1V		100KHz/1V									
1	18.0	204	15.9	-11.67%	OK					4.99	5.00	1.90
2	17.6	206	15.8	-10.23%	OK					5.02	5.00	1.95
3	18.0	205	15.8	-12.22%	OK					5.01	5.00	1.92
4	17.5	205	15.8	-9.71%	OK					5.02	5.00	1.92
5	17.5	208	15.5	-11.43%	OK					5.00	5.01	1.95
6	17.3	205	15.5	-10.40%	OK					5.05	4.99	1.96
7	17.8	204	15.7	-11.80%	OK					5.02	4.98	1.93
8	17.8	202	15.8	-11.24%	OK					5.00	5.01	1.89
9	17.9	204	15.9	-11.17%	OK					5.00	5.02	1.88
10	18.0	205	15.2	-15.56%	OK					5.00	5.00	1.94
AVG.	17.740	204.8	15.69	-11.54%						5.011	5.001	1.924
R	0.7	6	0.7	5.84%						0.06	0.04	0.08

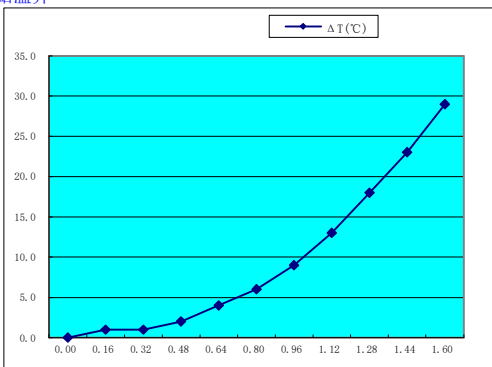
Isat(飽和電流):電感瞬間の突波電流

TME(秒)	Lsat(A)	L(UH)	ΔL/L(%)
1	0.00	18.0	0.00%
1	0.16	17.9	-0.56%
1	0.32	17.9	-0.56%
1	0.48	17.8	-1.11%
1	0.64	17.6	-2.22%
1	0.80	17.1	-5.00%
1	0.96	16.6	-7.78%
1	1.12	15.9	-11.67%
1	1.28	14.5	-19.44%
1	1.44	12.4	-31.11%
1	1.60	9.8	-45.56%



單點溫昇

TIME(S)	Irms(A)	L(uH)	ΔL/L(%)	Temp(°C)	ΔT(°C)
30	0.00	17.6	0.00%	27	0.0
30	0.16	17.5	-0.57%	28	1.0
30	0.32	17.5	-0.57%	28	1.0
30	0.48	17.2	-2.27%	29	2.0
30	0.64	16.9	-3.98%	31	4.0
30	0.80	16.5	-6.25%	33	6.0
30	0.96	16.0	-9.09%	36	9.0
30	1.12	15.1	-14.20%	40	13.0
30	1.28	13.6	-22.73%	45	18.0
30	1.44	11.4	-35.23%	50	23.0
30	1.60	8.71	-50.51%	56	29.0



承 認 书



SPECIFICATION FOR APPROVAL

CUSTOMER

CUSTOMER'S P/N

JINKAI P/N: CKNR5020B-220MC

PART NO. CKNR5020B Series

DRAWN NO.

TEST R.H. 80~85%

TEST TEMP. 20~25°C

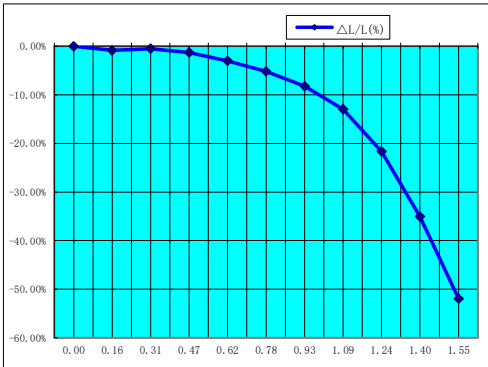
DATE 2025/3/13

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	306	1.15	△L/L≤-30%	1.15			上限	5.2	5.2	2.0
	± 20%	Max.	Max.		ΔT≤40℃ ℃			下限	4.8	4.8	MAX
TEST FREQ.	1MHz/1V		100KHz/1V								
1	20.7	171	18.0	-13.04%	OK				4.99	5.00	1.90
2	20.2	165	17.8	-11.88%	OK				5.02	5.00	1.95
3	19.8	165	17.2	-13.13%	OK				5.01	5.00	1.92
4	20.6	174	17.6	-14.56%	OK				5.02	5.00	1.92
5	20.6	166	17.8	-13.59%	OK				5.00	5.01	1.95
6	19.8	166	17.6	-11.11%	OK				5.05	4.99	1.96
7	19.5	165	17.0	-12.82%	OK				5.02	4.98	1.93
8	19.9	167	17.2	-13.57%	OK				5.00	5.01	1.89
9	20.3	172	17.5	-13.79%	OK				5.00	5.02	1.88
10	20.3	169	17.2	-15.27%	OK				5.00	5.00	1.94
AVG.	20.170	168	17.49	-13.28%					5.011	5.001	1.924
R	1.2	9	1	4.16%					0.06	0.04	0.08

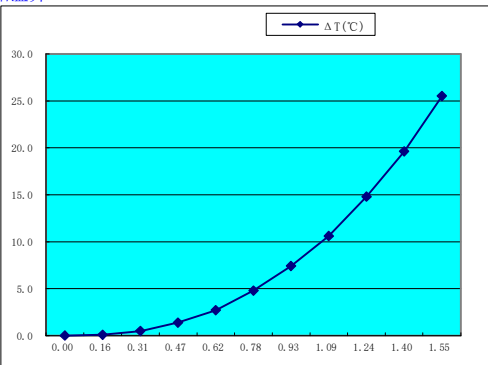
Isat(飽和電流):電感瞬間的突波電流

TME(秒)	Lsat(A)	L(UH)	ΔL/L(%)
1	0.00	23.1	0.00%
1	0.16	22.9	-0.87%
1	0.31	23.0	-0.52%
1	0.47	22.8	-1.30%
1	0.62	22.4	-3.03%
1	0.78	21.9	-5.19%
1	0.93	21.2	-8.23%
1	1.09	20.1	-12.99%
1	1.24	18.1	-21.65%
1	1.40	15.0	-35.06%
1	1.55	11.1	-51.95%



單點溫昇

TIME(S)	Irms(A)	L(uH)	ΔL/L(%)	Temp(°C)	ΔT(°C)
30	0.00	22.0	0.00%	30	0.0
30	0.16	21.9	-0.45%	30	0.1
30	0.31	21.8	-0.91%	31	0.5
30	0.47	21.7	-1.36%	32	1.4
30	0.62	21.4	-2.73%	33	2.7
30	0.78	20.9	-5.00%	35	4.8
30	0.93	20.3	-7.73%	38	7.4
30	1.09	19.3	-12.27%	41	10.6
30	1.24	17.3	-21.36%	45	14.8
30	1.40	14.0	-36.36%	50	19.6
30	1.55	9.31	-57.68%	56	25.5



承 認 書



SPECIFICATION FOR APPROVAL

CUSTOMER

CUSTOMER'S P/N

JINKAI P/N: CKNR5020B-470MC

PART NO. CKNR5020B Series

DRAWN NO.

TEST R.H. 80~85%

TEST TEMP. 20~25°C

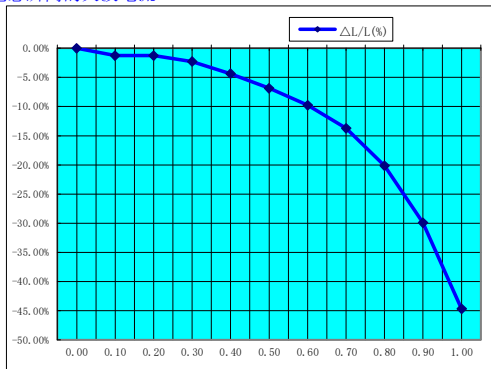
DATE 2025/3/13

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.	47.0 ± 20%	650 Max.	0.73 Max.	△L/L≤-30%	0.70 ΔT≤40℃ ℃			上限 下限	5.2 4.8	5.2 4.8	2.0 MAX
TEST FREQ.	1MHz/1V		100KHz/1V								
1	44.3	486	37.5	-15.35%	OK				4.99	5.00	1.90
2	44.5	494	37.3	-16.18%	OK				5.02	5.00	1.95
3	45.7	496	38.1	-16.63%	OK				5.01	5.00	1.92
4	43.9	492	37.9	-13.67%	OK				5.02	5.00	1.92
5	45.9	491	37.6	-18.08%	OK				5.00	5.01	1.95
6	44.6	495	37.0	-17.04%	OK				5.05	4.99	1.96
7	44.9	476	37.2	-17.15%	OK				5.02	4.98	1.93
8	45.4	486	38.0	-16.30%	OK				5.00	5.01	1.89
9	45.4	491	37.5	-17.40%	OK				5.00	5.02	1.88
10	46.2	485	37.9	-17.97%	OK				5.00	5.00	1.94
AVG.	45.080	489.2	37.6	-16.58%					5.011	5.001	1.924
R	2.3	20	1.1	4.42%					0.06	0.04	0.08

Isat(飽和電流):電感瞬間的突波電流

TME(秒)	Lsat(A)	L(UH)	ΔL/L(%)
1	0.00	48.1	0.00%
1	0.10	47.5	-1.25%
1	0.20	47.5	-1.25%
1	0.30	47.0	-2.29%
1	0.40	46.0	-4.37%
1	0.50	44.8	-6.86%
1	0.60	43.4	-9.77%
1	0.70	41.5	-13.72%
1	0.80	38.4	-20.17%
1	0.90	33.7	-29.94%
1	1.00	26.6	-44.70%



單點溫昇

TIME(S)	Irms(A)	L(uH)	ΔL/L(%)	Temp(°C)	ΔT(°C)
30	0.00	49.5	0.00%	30	0.0
30	0.10	49.1	-0.81%	31	1.0
30	0.20	48.7	-1.62%	31	1.0
30	0.30	48.1	-2.83%	32	2.0
30	0.40	46.7	-5.66%	33	3.0
30	0.50	45.1	-8.89%	35	5.0
30	0.60	43.3	-12.53%	37	7.0
30	0.70	40.6	-17.98%	40	10.0
30	0.80	36.2	-26.87%	43	13.0
30	0.90	28.7	-42.02%	47	17.0
30	1.00	18.1	-63.43%	52	22.0

