

承 认 书

SPECIFICATION FOR APPROVAL

CUSTOMER			
CUSTOMER'S P/N			
DATE	13/Feb/2025	REVISION NO.	A
PART NO.	CKNR4012B 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/Feb/2025	13/Feb/2025	13/Feb/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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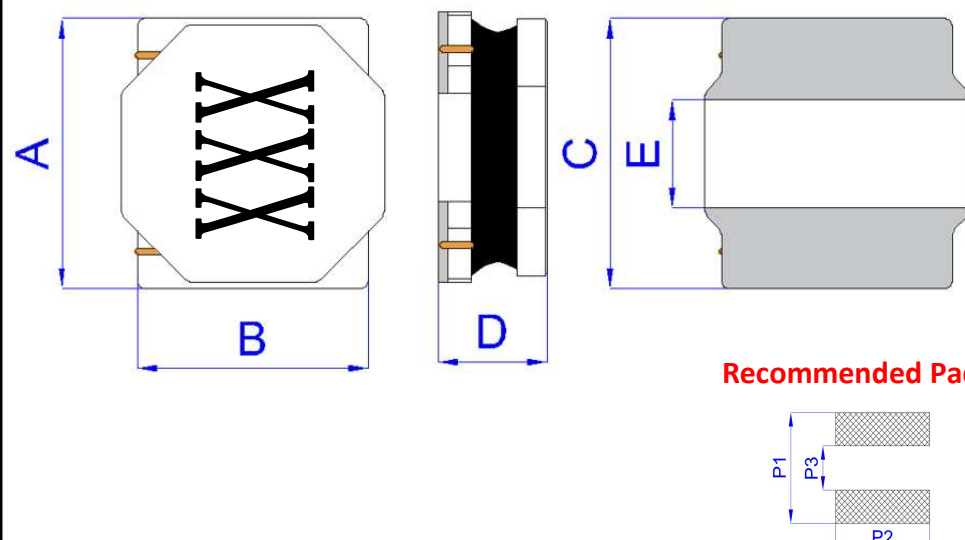
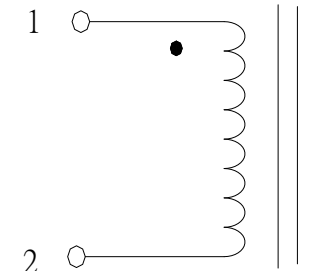


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DESCRIPTION.	SMD POWER INDUCTOR	DRAWN NO.	0
PART NO.	CKNR4012B Series	DATE	2025/2/13

1.SHAPE & DIMENSION

UNIT: mm						SCHEMATICS	
							
						MARKING COLOR	
						BLACK	

A	B	C	D	E	P1	P2	P3
4	4	4	1.1	1.4	4	3.7	1.6
±0.2	±0.2	±0.2	±0.1	±0.2	Ref.	Ref.	Ref.

PART NUMBERING SYSTEM

	CK	NR	4012	B	-	2R2	M	C
	1	2	3	4	5	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
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DESCRIPTION.	SMD POWER INDUCTOR	DRAWN NO.	0
PART NO.	CKNR4012B Series	DATE	2025/2/13

2.SERIES SPECIFICATION

◆ CKNR4012B Series

Specification:

Part Number	Inductance	Test Freq	DCR (mΩ)		Saturation Current (A)		Temp. Rise Current (A)	
	(μH)	(Hz)	Max	Typ	Max	Typ	Max	Typ
CKNR4012B-R47YC	0.47	100KHz/1V	60	45	4.00	4.50	3.40	3.90
CKNR4012B-R68YC	0.68		65	49	3.60	4.00	3.00	3.80
CKNR4012B-1R0YC	1.0		88	65	2.80	3.10	3.20	3.60
CKNR4012B-1R5YC	1.5		90	74	2.30	2.50	2.50	2.90
CKNR4012B-2R2NC	2.2		120	90	2.20	2.45	2.50	2.70
CKNR4012B-3R3MC	3.3		147	119	2.00	2.25	2.30	2.50
CKNR4012B-4R7MC	4.7		190	154	1.40	1.65	1.70	1.90
CKNR4012B-6R8MC	6.8		280	225	1.30	1.45	1.50	1.65
CKNR4012B-100MC	100		410	336	1.00	1.10	1.10	1.20
CKNR4012B-150MC	150		624	500	0.70	0.95	1.00	1.10
CKNR4012B-220MC	220		924	753	0.65	0.75	0.90	1.00
CKNR4012B-330MC	330		1200	1000	0.50	0.58	0.60	0.70
CKNR4012B-470MC	470		1920	1550	0.40	0.50	0.50	0.60

◆ 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 $\Delta T \leq 40^{\circ}\text{C}$. ($T_a = 25^{\circ}\text{C}$)

*For CKNR4012B Series size inductors, absolute maximum voltage: I 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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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 equivalent	ELEKTRISOLA	RoHS	
胶水 (Glue)	Phenolic epoxy resin	DJ	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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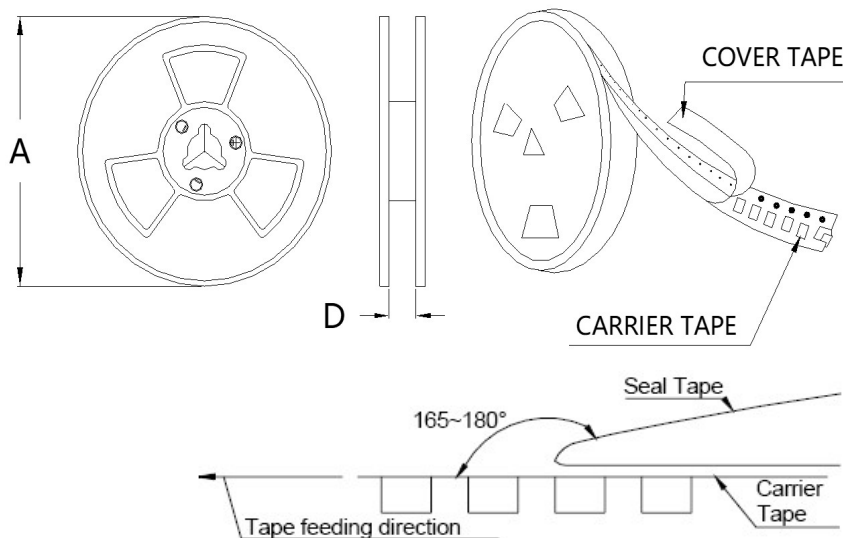
4.PACKAGING(unit: mm)

1.包装类型

2.包装尺寸

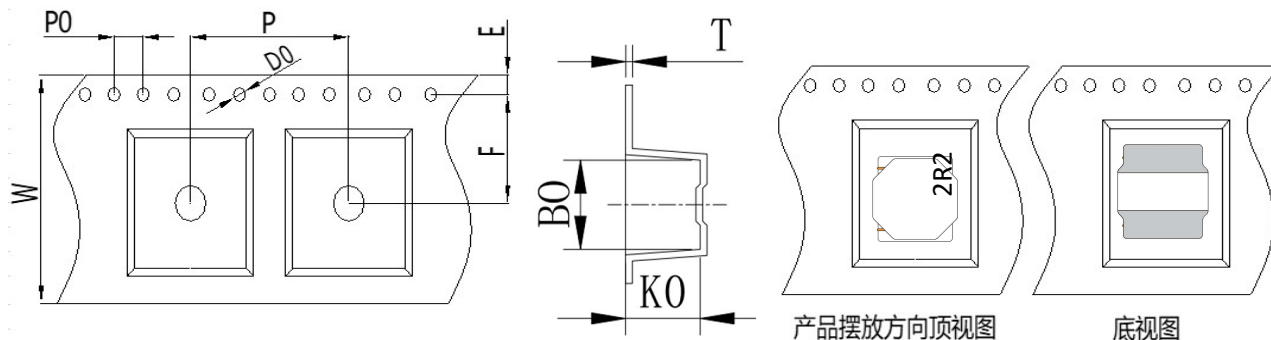
13" 盘

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±0.3	4.4±0.1	8.0±0.1	0.3±0.05	1.75±0.1	5.5±0.1	1.5±0.1	4.0±0.1	1.35±0.1	

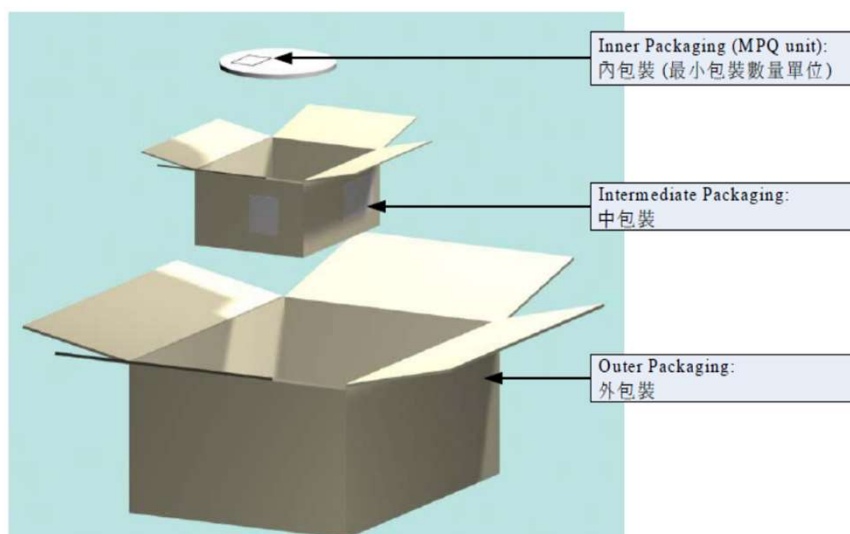
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5. CARTON



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10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

1.9 出货标签规格如下: 尺寸=长度:90mm 宽度:50mm

(如: 客户有特殊要求时, 则依客户要求实施.)

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	4500	PCS
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外箱包装数量

每箱	10	卷,共	45000	PCS
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内箱包装数量

每箱	5	卷,共	22500	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 24hours	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. Apperance: No damage

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7. SOLDERING CONDITIONS

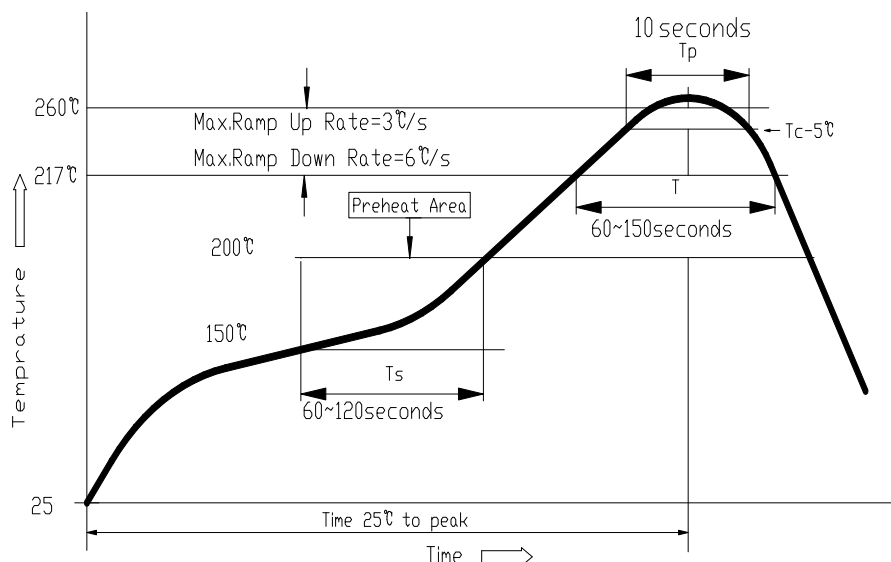
Applicable soldering process to the products is refl.

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℃ 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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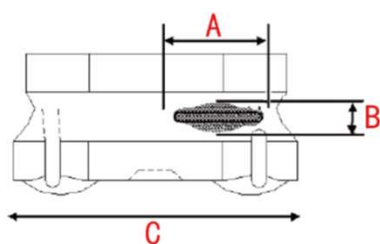


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8.Appearance of the standard

1.Void appearance tolerance limit



Size of voids occurring to coating resin is specified below.

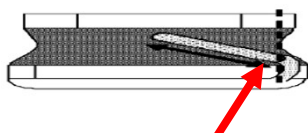
①Width direction(dimension A): Acceptable when $A \leq C/2$

Nonconforming when $B \geq C/2$

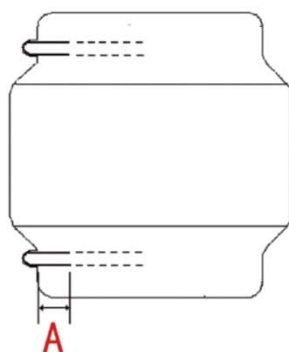
②Length direction(dimension B):Dimension b is not specified

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



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CUSTOMER

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JINKAI P/N: CKNR4012B-R47YC

PART NO. CKNR4012B Series

DRAWN NO.

TEST R.H. 80~85%

TEST TEMP. 20~25°C

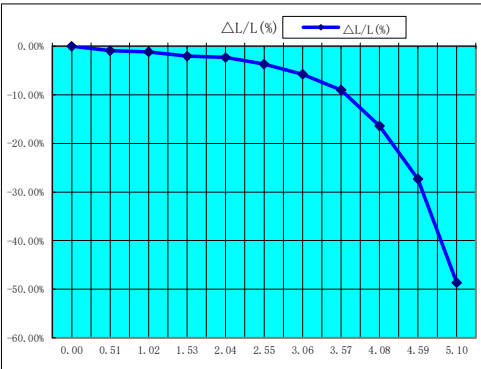
DATE 2025/2/13

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.	0.47 ± 30%	60 Max.	4.00 Max.	ΔL/L≤-30%	2.00 ΔT≤40℃ ℃				上限 4.2 下限 3.8	4.2 3.8	1.2 MAX
TEST FREQ.	100KHz/1V		100KHz/1V								
1	0.44	45.6	0.38	-13.64%	OK				4.04	4.04	1.19
2	0.42	44.5	0.36	-14.29%	OK				4.02	4.02	1.16
3	0.38	46.3	0.32	-15.79%	OK				3.99	4.01	1.16
4	0.42	47.0	0.34	-19.05%	OK				4.03	4.00	1.18
5	0.41	45.9	0.35	-14.63%	OK				4.02	4.04	1.18
6	0.43	47.2	0.36	-16.28%	OK				4.03	4.03	1.15
7	0.42	47.5	0.36	-14.29%	OK				4.00	4.03	1.15
8	0.38	44.3	0.32	-15.53%	OK				4.01	4.02	1.16
9	0.40	46.5	0.34	-15.00%	OK				4.04	3.99	1.15
10	0.43	44.8	0.35	-18.60%	OK				4.02	4.04	1.17
AVG.	0.413	45.96	0.3481	-15.71%					4.02	4.022	1.165
R	0.06	3.2	0.06	5.41%					0.05	0.05	0.04

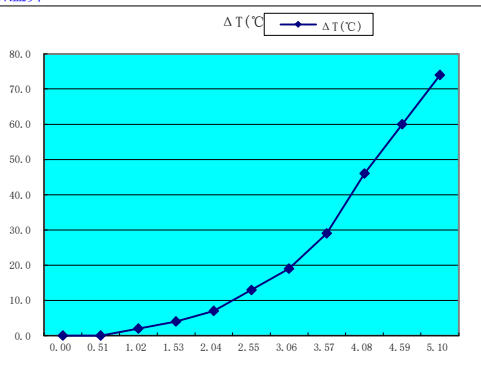
Isat(飽和電流):電感瞬間的突波電流

TME(秒)	Lsat(A)	L(UH)	ΔL/L(%)
1	0.00	0.432	0.00%
1	0.51	0.428	-0.93%
1	1.02	0.427	-1.16%
1	1.53	0.423	-2.08%
1	2.04	0.422	-2.31%
1	2.55	0.416	-3.70%
1	3.06	0.407	-5.79%
1	3.57	0.393	-9.03%
1	4.08	0.361	-16.44%
1	4.59	0.314	-27.31%
1	5.10	0.222	-48.61%



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TIME(S)	Irms(A)	L(uH)	ΔL/L(%)	Temp(°C)	ΔT(°C)
30	0.00	0.438	0.00%	30.0	0.0
30	0.51	0.440	0.46%	30.0	0.0
30	1.02	0.440	0.46%	32.0	2.0
30	1.53	0.438	0.00%	34.0	4.0
30	2.04	0.436	-0.46%	37.0	7.0
30	2.55	0.430	-1.83%	43.0	13.0
30	3.06	0.422	-3.65%	49.0	19.0
30	3.57	0.402	-8.22%	59.0	29.0
30	4.08	0.316	-27.85%	76.0	46.0
30	4.59	0.292	-33.33%	90.0	60.0
30	5.10	0.191	-56.39%	104.0	74.0



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JINKAI P/N: CKNR4012B-R68YC

PART NO. CKNR4012B Series

DRAWN NO.

TEST R.H. 80~85%

TEST TEMP. 20~25°C

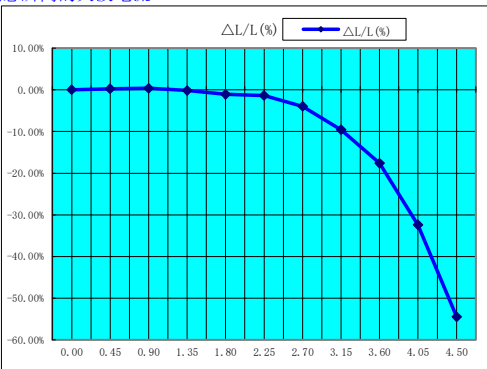
DATE 2025/2/13

TEST DATA FOR PREPRODUCTION SAMPLE

TEST RESOLUTION						DIMENSION (Unit : mm)			
MEAS. ITEM	L μh	DCR mΩ	Isat A	ΔL/L	Irms A				
SPEC.	0.68 ± 30%	65 Max.	3.00 Max.	ΔL/L≤-30%	1.80 ΔT≤40°C °C			上限 下限	4.2 3.8
TEST FREQ.	100KHz/1V		100KHz/1V						
1	0.65	48.1	0.55	-15.38%	OK			4.04	4.04
2	0.68	49.0	0.56	-17.65%	OK			4.02	4.02
3	0.64	51.5	0.56	-12.50%	OK			3.99	4.01
4	0.67	48.4	0.58	-13.43%	OK			4.03	4.00
5	0.64	48.8	0.56	-12.50%	OK			4.02	4.04
6	0.65	49.8	0.54	-16.92%	OK			4.03	4.03
7	0.67	48.0	0.58	-13.43%	OK			4.00	4.03
8	0.65	50.0	0.59	-9.23%	OK			4.01	4.02
9	0.68	48.1	0.58	-14.71%	OK			4.04	3.99
10	0.68	51.0	0.56	-17.65%	OK			4.02	4.04
AVG.	0.661	49.27	0.566	-14.34%				4.02	4.022
R	0.04	3.5	0.05	8.42%				0.05	0.05

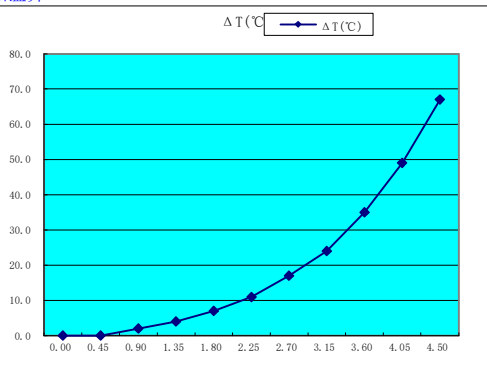
Isat(飽和電流):電感瞬間の突波電流

TME(秒)	Lsat(A)	L(UH)	ΔL/L(%)
1	0.00	0.729	0.00%
1	0.45	0.731	0.27%
1	0.90	0.732	0.41%
1	1.35	0.728	-0.14%
1	1.80	0.721	-1.10%
1	2.25	0.719	-1.37%
1	2.70	0.700	-3.98%
1	3.15	0.659	-9.60%
1	3.60	0.601	-17.56%
1	4.05	0.493	-32.37%
1	4.50	0.332	-54.46%



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TIME(S)	Irms(A)	L(uH)	ΔL/L(%)	Temp(°C)	ΔT(°C)
30	0.00	0.744	0.00%	32.0	0.0
30	0.45	0.747	0.40%	32.0	0.0
30	0.90	0.749	0.67%	34.0	2.0
30	1.35	0.746	0.27%	36.0	4.0
30	1.80	0.739	-0.67%	39.0	7.0
30	2.25	0.737	-0.94%	43.0	11.0
30	2.70	0.715	-3.90%	49.0	17.0
30	3.15	0.668	-10.22%	56.0	24.0
30	3.60	0.572	-23.12%	67.0	35.0
30	4.05	0.406	-45.43%	81.0	49.0
30	4.50	0.231	-68.95%	99.0	67.0



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PART NO. CKNR4012B Series

DRAWN NO.

TEST R.H. 80~85%

TEST TEMP. 20~25℃

DATE 2025/2/13

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 ± 30%	88 Max.	2.61 Max.	△L/L≤-30%	1.65 △T≤40℃ ℃			上限 下限	4.2 3.8	4.2 3.8 MAX
TEST FREQ.	100KHz/1V		100KHz/1V							
1	1. 18	64. 3	0.99	-16.10%	OK				4.04	4.04 1.19
2	1. 19	66. 8	0.99	-16.81%	OK				4.02	4.02 1.16
3	1. 17	69. 0	0.96	-17.95%	OK				3.99	4.01 1.16
4	1. 18	67. 3	0.95	-19.49%	OK				4.03	4.00 1.18
5	1. 13	64. 3	0.94	-16.81%	OK				4.02	4.04 1.18
6	1. 20	67. 5	0.98	-18.33%	OK				4.03	4.03 1.15
7	1. 17	64. 0	0.98	-16.24%	OK				4.00	4.03 1.15
8	1. 14	63. 5	0.95	-16.67%	OK				4.01	4.02 1.16
9	1. 16	65. 9	0.95	-18.10%	OK				4.04	3.99 1.15
10	1. 18	64. 4	0.98	-16.95%	OK				4.02	4.04 1.17
AVG.	1.170	65.7	0.967	-17.35%					4.02	4.022 1.165
R	0.07	5.5	0.05	3.39%					0.05	0.05 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	1.17	0.00%
1	0.36	1.18	0.85%
1	0.72	1.17	0.00%
1	1.08	1.16	-0.85%
1	1.44	1.14	-2.56%
1	1.80	1.11	-5.13%
1	2.16	1.08	-7.69%
1	2.52	1.02	-12.82%
1	2.88	0.92	-21.37%
1	3.24	0.77	-34.19%
1	3.60	0.58	-50.43%

單點溫昇

TME(S)	Irms(A)	L(uH)	ΔL/L(%)	Temp(℃)	ΔT(℃)
30	0.00	1.10	0.00%	26.0	0.0
30	0.36	1.10	0.00%	26.0	0.0
30	0.72	1.10	0.00%	26.0	0.0
30	1.08	1.09	-0.91%	28.0	2.0
30	1.44	1.07	-2.73%	30.0	4.0
30	1.80	1.04	-5.45%	32.0	6.0
30	2.16	1.01	-8.18%	35.0	9.0
30	2.52	0.96	-12.73%	38.0	12.0
30	2.88	0.88	-20.00%	43.0	17.0
30	3.24	0.76	-30.91%	48.0	22.0
30	3.60	0.61	-44.55%	55.0	29.0

承认书



SPECIFICATION FOR APPROVAL

CUSTOMER

CUSTOMER'S P/N

JINKAI P/N: CKNR4012B-1R5YC

PART NO. CKNR4012B Series

DRAWN NO.

TEST R.H. 80~85%

TEST TEMP. 20~25℃

DATE 2025/2/13

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.	1.5 ± 30%	90 Max.	2.10 Max.	ΔL/L≤-30%	1.46 ΔT≤40℃ ℃				上限 下限	4.2 3.8	4.2 3.8	1.2 MAX
TEST FREQ.	100KHz/1V		100KHz/1V									
1	1.74	73.8	1.44	-17.24%	OK				4.04	4.04	1.19	
2	1.71	72.7	1.41	-17.54%	OK				4.02	4.02	1.16	
3	1.68	71.5	1.41	-16.07%	OK				3.99	4.01	1.16	
4	1.75	74.4	1.45	-17.14%	OK				4.03	4.00	1.18	
5	1.74	75.0	1.50	-13.79%	OK				4.02	4.04	1.18	
6	1.76	73.5	1.41	-19.89%	OK				4.03	4.03	1.15	
7	1.70	73.5	1.45	-14.71%	OK				4.00	4.03	1.15	
8	1.76	75.5	1.50	-14.92%	OK				4.01	4.02	1.16	
9	1.72	72.6	1.44	-16.28%	OK				4.04	3.99	1.15	
10	1.69	73.3	1.40	-17.16%	OK				4.02	4.04	1.17	
AVG.	1.725	73.58	1.441	-16.47%					4.02	4.022	1.165	
R	0.083	4	0.1	6.09%					0.05	0.05	0.04	

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	1.69	0.00%
1	0.29	1.69	0.00%
1	0.58	1.68	-0.59%
1	0.87	1.66	-1.78%
1	1.16	1.63	-3.55%
1	1.45	1.60	-5.33%
1	1.74	1.55	-8.28%
1	2.03	1.48	-12.43%
1	2.32	1.32	-21.89%
1	2.61	1.07	-36.69%
1	2.90	0.80	-52.66%

單點溫昇					
TIME(S)	Irms(A)	L(uH)	ΔL/L(%)	Temp(℃)	ΔT(℃)
30	0.00	1.74	0.00%	30.0	0.0
30	0.29	1.74	0.00%	31.0	1.0
30	0.58	1.73	-0.57%	32.0	2.0
30	0.87	1.71	-1.72%	33.0	3.0
30	1.16	1.69	-2.87%	35.0	5.0
30	1.45	1.65	-5.17%	38.0	8.0
30	1.74	1.60	-8.05%	42.0	12.0
30	2.03	1.50	-13.79%	47.0	17.0
30	2.32	1.28	-26.44%	53.0	23.0
30	2.61	0.96	-44.83%	60.0	30.0
30	2.90	0.58	-66.67%	70.0	40.0

承认书



SPECIFICATION FOR APPROVAL

CUSTOMER

CUSTOMER'S P/N

JINKAI P/N: CKNR4012B-2R2NC

PART NO. CKNR4012B Series

DRAWN NO.

TEST R.H. 80~85%

TEST TEMP. 20~25℃

DATE 2025/2/13

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.	2.2 ± 25%	120 Max.	1.90 Max.	ΔL/L≤-30%	1.32 ΔT≤40℃ ℃				上限 下限	4.2 3.8	4.2 3.8	1.2 MAX
TEST FREQ.	100KHz/1V		100KHz/1V									
1	2.13	90.3	1.70	-20.19%	OK				4.01	4.03	1.15	
2	2.32	88.8	1.90	-18.10%	OK				4.00	4.05	1.16	
3	2.22	89.3	1.80	-18.92%	OK				4.00	4.06	1.17	
4	2.23	89.4	1.80	-19.28%	OK				4.00	4.08	1.17	
5	2.25	89.6	1.79	-20.44%	OK				4.00	4.04	1.11	
6	2.22	88.3	1.80	-18.92%	OK				4.01	4.01	1.15	
7	2.25	88.6	1.80	-20.00%	OK				4.02	4.00	1.16	
8	2.23	89.2	1.82	-18.39%	OK				4.00	4.00	1.18	
9	2.23	88.9	1.79	-19.73%	OK				4.03	4.01	1.11	
10	2.20	88.3	1.80	-18.18%	OK				4.08	4.02	1.14	
AVG.	2.228	89.07	1.8	-19.22%					4.015	4.03	1.15	
R	0.19	2	0.2	2.34%					0.08	0.08	0.07	

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	2.25	0.00%
1	0.27	2.24	-0.44%
1	0.54	2.23	-0.89%
1	0.81	2.20	-2.22%
1	1.08	2.17	-3.56%
1	1.35	2.13	-5.33%
1	1.62	2.08	-7.56%
1	1.89	2.01	-10.67%
1	2.16	1.86	-17.33%
1	2.43	1.61	-28.44%
1	2.70	1.21	-46.22%

單點溫昇					
TIME(S)	Irms(A)	L(uH)	ΔL/L(%)	Temp(℃)	ΔT(℃)
30	0.00	2.21	0.00%	31.0	0.0
30	0.27	2.22	0.45%	31.0	0.0
30	0.54	2.19	-0.90%	31.0	0.0
30	0.81	2.14	-3.17%	33.0	2.0
30	1.08	2.10	-4.98%	34.0	3.0
30	1.35	2.06	-6.79%	36.0	5.0
30	1.62	1.99	-9.95%	40.0	9.0
30	1.89	1.91	-13.57%	43.0	12.0
30	2.16	1.75	-20.81%	48.0	17.0
30	2.43	1.51	-31.67%	53.0	22.0
30	2.70	1.21	-45.25%	59.0	28.0

承认书



SPECIFICATION FOR APPROVAL

CUSTOMER

CUSTOMER'S P/N

JINKAI P/N: CKNR4012B-3R3MC

PART NO. CKNR4012B Series

DRAWN NO.

TEST R.H. 80~85%

TEST TEMP. 20~25℃

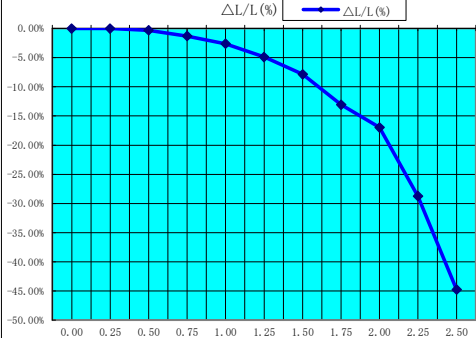
DATE 2025/2/13

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%	147 Max.	1.50 Max.	ΔL/L≤-30%	1.20 ΔT≤40℃ ℃			上限 下限	4.2 3.8	4.2 3.8 MAX
TEST FREQ.	100KHz/1V		100KHz/1V							
1	3.08	118	2.60	-15.58%	OK			4.00	4.04	1.15
2	3.01	119	2.48	-17.61%	OK			3.98	4.06	1.14
3	2.99	118	2.51	-16.05%	OK			4.00	4.00	1.15
4	2.97	118	2.52	-15.15%	OK			4.00	4.00	1.17
5	2.90	120	2.49	-14.14%	OK			4.00	4.01	1.13
6	3.00	118	2.50	-16.67%	OK			4.00	4.01	1.13
7	3.05	119	2.56	-16.07%	OK			4.00	4.02	1.13
8	3.13	117	2.58	-17.57%	OK			4.05	3.99	1.12
9	3.02	120	2.49	-17.63%	OK			4.06	3.98	1.14
10	3.00	119	2.54	-15.33%	OK			4.01	4.04	1.18
AVG.	3.015	118.6	2.527	-16.18%				4.01	4.015	1.144
R	0.23	3	0.12	3.49%				0.08	0.08	0.06

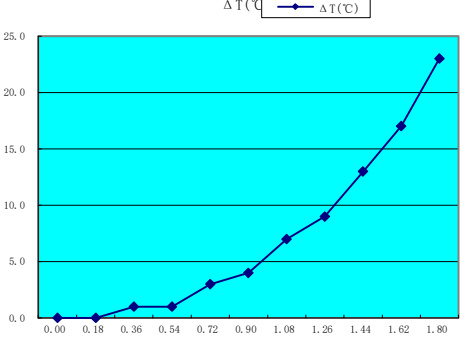
Isat(飽和電流):電感瞬間的突波電流

TME(秒)	Lsat(A)	L(UH)	ΔL/L(%)
1	0.00	3.06	0.00%
1	0.25	3.06	0.00%
1	0.50	3.05	-0.33%
1	0.75	3.02	-1.31%
1	1.00	2.98	-2.61%
1	1.25	2.91	-4.90%
1	1.50	2.82	-7.84%
1	1.75	2.66	-13.07%
1	2.00	2.54	-16.99%
1	2.25	2.18	-28.76%
1	2.50	1.69	-44.77%



單點溫昇

TME(S)	Irms(A)	L(uH)	ΔL/L(%)	Temp(℃)	ΔT(℃)
30	0.00	3.06	0.00%	28.0	0.0
30	0.18	3.07	0.33%	28.0	0.0
30	0.36	3.05	-0.33%	29.0	1.0
30	0.54	3.06	0.00%	29.0	1.0
30	0.72	3.05	-0.33%	31.0	3.0
30	0.90	3.03	-0.98%	32.0	4.0
30	1.08	2.99	-2.29%	35.0	7.0
30	1.26	2.94	-3.92%	37.0	9.0
30	1.44	2.85	-6.86%	41.0	13.0
30	1.62	2.71	-11.44%	45.0	17.0
30	1.80	2.47	-19.28%	51.0	23.0



承认书



SPECIFICATION FOR APPROVAL

CUSTOMER

CUSTOMER'S P/N

JINKAI P/N: CKNR4012B-4R7MC

PART NO. CKNR4012B Series

DRAWN NO.

TEST R.H. 80~85%

TEST TEMP. 20~25℃

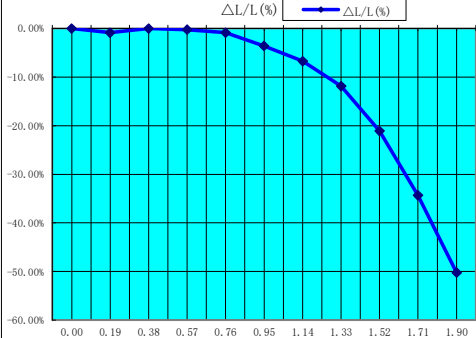
DATE 2025/2/13

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.	4.7 ± 20%	190 Max.	1.30 Max.	ΔL/L≤-30%	1.10 ΔT≤40℃ ℃			上限 下限	4.2 3.8	4.2 3.8 MAX
TEST FREQ.	100KHz/1V		100KHz/1V							
1	4.53	151	3.65	-19.43%	OK			4.04	3.98	1.12
2	4.41	152	3.68	-16.55%	OK			4.00	3.98	1.14
3	4.37	154	3.56	-18.54%	OK			3.98	4.01	1.12
4	4.69	158	3.85	-17.91%	OK			4.04	3.98	1.12
5	4.28	152	3.62	-15.42%	OK			4.00	3.98	1.14
6	4.52	156	3.64	-19.47%	OK			4.04	3.98	1.12
7	4.61	159	3.70	-19.74%	OK			4.00	3.98	1.14
8	4.52	154	3.65	-19.25%	OK			3.98	4.01	1.12
9	4.41	152	3.68	-16.55%	OK			4.05	3.98	1.13
10	4.51	155	3.65	-19.07%	OK			4.02	3.98	1.10
AVG.	4.485	154.3	3.668	-18.19%				4.015	3.986	1.125
R	0.41	8	0.29	4.32%				0.07	0.03	0.04

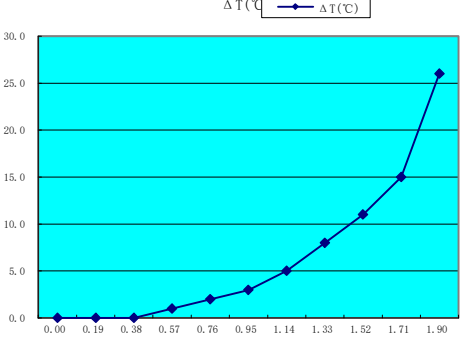
Isat(飽和電流):電感瞬間的突波電流

TME(秒)	Lsat(A)	L(UH)	ΔL/L(%)
1	0.00	4.46	0.00%
1	0.19	4.42	-0.90%
1	0.38	4.46	0.00%
1	0.57	4.45	-0.22%
1	0.76	4.42	-0.90%
1	0.95	4.30	-3.59%
1	1.14	4.16	-6.73%
1	1.33	3.93	-11.88%
1	1.52	3.52	-21.08%
1	1.71	2.93	-34.30%
1	1.90	2.22	-50.22%



單點溫昇

TME(S)	Irms(A)	L(uH)	ΔL/L(%)	Temp(℃)	ΔT(℃)
30	0.00	4.40	0.00%	28.0	0.0
30	0.19	4.39	-0.23%	28.0	0.0
30	0.38	4.36	-0.91%	28.0	0.0
30	0.57	4.40	0.00%	29.0	1.0
30	0.76	4.39	-0.23%	30.0	2.0
30	0.95	4.33	-1.59%	31.0	3.0
30	1.14	4.24	-3.64%	33.0	5.0
30	1.33	4.10	-6.82%	36.0	8.0
30	1.52	3.88	-11.82%	39.0	11.0
30	1.71	2.93	-33.41%	43.0	15.0
30	1.90	2.20	-50.00%	54.0	26.0



承认书



SPECIFICATION FOR APPROVAL

CUSTOMER

CUSTOMER'S P/N

JINKAI P/N: CKNR4012B-6R8MC

PART NO. CKNR4012B Series

DRAWN NO.

TEST R.H. 80~85%

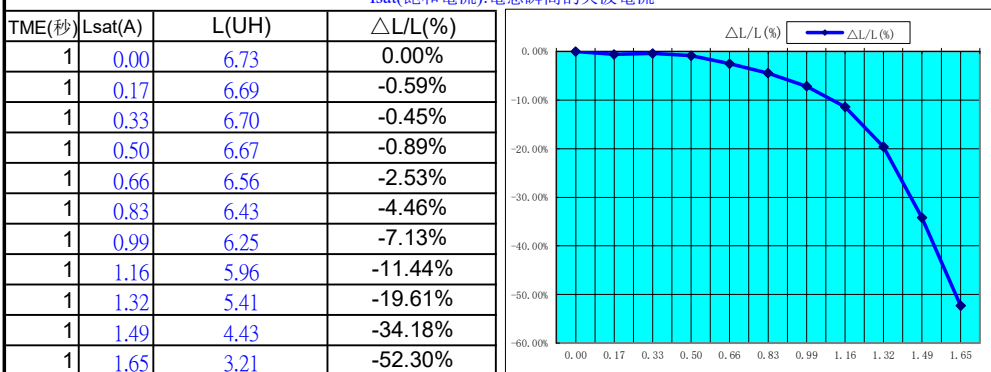
TEST TEMP. 20~25℃

DATE CKNR4012B Series

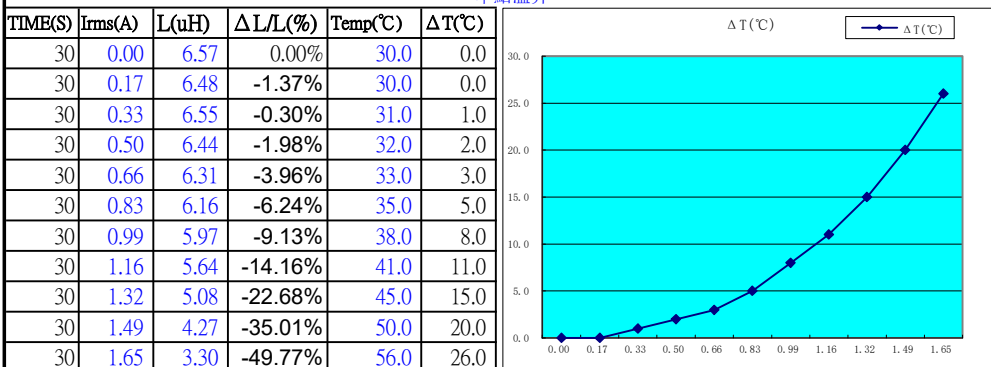
TEST DATA FOR PREPRODUCTION SAMPLE

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.	1.10 Max.	△L/L≤-30%	1.00 △T≤40℃ ℃				上限 下限	4.2 3.8	4.2 3.8 MAX
TEST FREQ.	100KHz/1V		100KHz/1V								
1	6.69	223	5.73	-14.35%	OK				4.00	4.02	1.15
2	6.54	224	5.62	-14.07%	OK				4.00	4.03	1.16
3	6.52	224	5.50	-15.64%	OK				4.01	4.04	1.12
4	6.59	225	5.60	-15.02%	OK				4.00	4.02	1.14
5	6.61	224	5.64	-14.67%	OK				4.02	4.03	1.16
6	6.56	224	5.63	-14.18%	OK				3.99	4.02	1.14
7	6.58	224	5.62	-14.59%	OK				3.98	4.01	1.15
8	6.77	225	5.68	-16.10%	OK				4.05	4.00	1.15
9	6.44	226	5.70	-11.49%	OK				4.06	4.00	1.14
10	6.77	231	5.70	-15.81%	OK				4.02	4.00	1.11
AVG.	6.607	225	5.642	-14.59%					4.013	4.017	1.142
R	0.33	8	0.23	4.61%					0.08	0.04	0.05

Isat(飽和電流):電感瞬間の突波電流



單點溫昇



承认书



SPECIFICATION FOR APPROVAL

CUSTOMER

CUSTOMER'S P/N

JINKAI P/N: CKNR4012B-100MC

PART NO. CKNR4012B Series

DRAWN NO.

TEST R.H. 80~85%

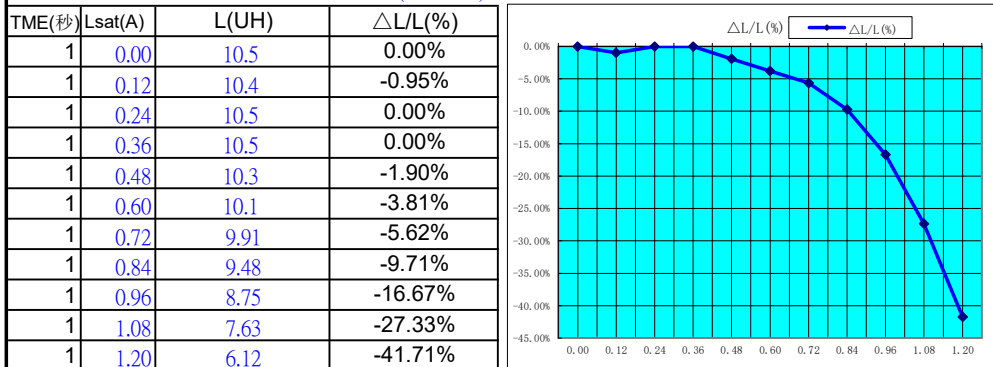
TEST TEMP. 20~25℃

DATE CKNR4012B Series

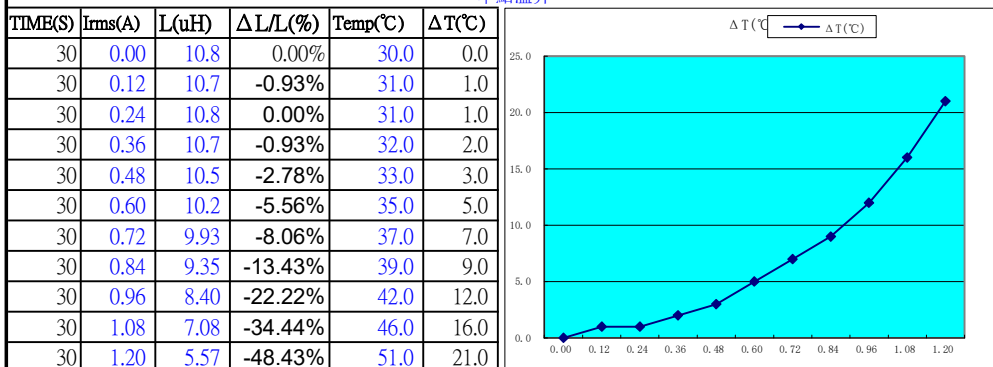
TEST DATA FOR PREPRODUCTION SAMPLE

TEST RESOLUTION								DIMENSION (Unit : mm)			
MEAS. ITEM	L μh	DCR mΩ	Isat A	ΔL/L	Irms A				長 mm	寬 mm	高 mm
SPEC.	10.0 ± 20%	410 Max.	0.8 Max.	ΔL/L≤-30%	0.80 ΔT≤40℃ ℃			上限 下限	4.2 3.8	4.2 3.8	1.2 MAX
TEST FREQ.	100KHz/1V		100KHz/1V								
1	10.7	338	9.40	-12.1%	OK				4.00	4.02	1.15
2	10.3	336	9.21	-10.6%	OK				4.00	4.03	1.16
3	10.5	338	9.31	-11.3%	OK				4.01	4.04	1.12
4	10.3	331	9.15	-11.2%	OK				4.00	4.02	1.14
5	10.7	336	9.25	-13.6%	OK				4.02	4.03	1.16
6	10.4	337	8.99	-13.6%	OK				3.99	4.02	1.14
7	10.7	340	9.01	-15.8%	OK				3.98	4.01	1.15
8	10.4	337	8.89	-14.5%	OK				4.05	4.00	1.15
9	10.4	335	9.12	-12.3%	OK				4.06	4.00	1.14
10	10.4	335	9.00	-13.5%	OK				4.02	4.00	1.11
AVG.	10.480	336.3	9.133	-12.84%					4.013	4.017	1.142
R	0.4	9	0.51	5.21%					0.08	0.04	0.05

Isat(飽和電流):電感瞬間の突波電流



單點溫昇



承认书



SPECIFICATION FOR APPROVAL

CUSTOMER

CUSTOMER'S P/N

JINKAI P/N: CKNR4012B-150MC

PART NO. CKNR4012B Series

DRAWN NO.

TEST R.H. 80~85%

TEST TEMP. 20~25℃

DATE 2025/2/13

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.	15.0 ± 20%	624 Max.	0.7 Max.	ΔL/L≤-30%	0.70 ΔT≤40℃ ℃				上限 下限	4.2 3.8	4.2 3.8	1.2 MAX
TEST FREQ.	100KHz/1V		100KHz/1V									
1	15.5	494	13.0	-16.13%	OK				4.01	4.02	1.15	
2	15.8	492	12.7	-19.62%	OK				4.02	4.03	1.16	
3	16.1	500	13.0	-19.25%	OK				4.03	4.03	1.14	
4	15.9	502	12.6	-20.75%	OK				4.01	4.02	1.14	
5	15.7	493	12.9	-17.83%	OK				4.00	4.02	1.14	
6	15.8	501	12.8	-18.99%	OK				4.02	3.99	1.15	
7	15.6	497	12.9	-17.31%	OK				4.02	3.98	1.16	
8	15.7	513	12.4	-21.02%	OK				4.05	4.05	1.12	
9	16.0	494	12.5	-21.88%	OK				3.99	4.06	1.11	
10	15.7	507	12.8	-18.47%	OK				3.98	4.00	1.19	
AVG.	15.780	499.3	12.76	-19.13%					4.013	4.02	1.146	
R	0.6	21	0.6	5.75%					0.07	0.08	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	15.6	0.00%
1	0.11	15.7	0.64%
1	0.22	15.6	0.00%
1	0.33	15.4	-1.28%
1	0.44	15.1	-3.21%
1	0.55	14.8	-5.13%
1	0.66	14.4	-7.69%
1	0.77	13.7	-12.18%
1	0.88	12.4	-20.51%
1	0.99	10.1	-35.26%
1	1.10	7.10	-54.49%

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TME(S)	Irms(A)	L(uH)	ΔL/L(%)	Temp(℃)	ΔT(℃)
30	0.00	15.5	0.00%	31.0	0.0
30	0.11	15.4	-0.65%	31.0	0.0
30	0.22	15.4	-0.65%	32.0	1.0
30	0.33	15.0	-3.23%	32.0	1.0
30	0.44	14.6	-5.81%	34.0	3.0
30	0.55	14.2	-8.39%	36.0	5.0
30	0.66	13.7	-11.61%	39.0	8.0
30	0.77	12.9	-16.77%	42.0	11.0
30	0.88	11.5	-25.81%	46.0	15.0
30	0.99	9.70	-37.42%	50.0	19.0
30	1.10	7.51	-51.55%	56.0	25.0

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SPECIFICATION FOR APPROVAL

CUSTOMER

CUSTOMER'S P/N

JINKAI P/N: CKNR4012B-220MC

PART NO. CKNR4012B Series

DRAWN NO.

TEST R.H. 80~85%

TEST TEMP. 20~25℃

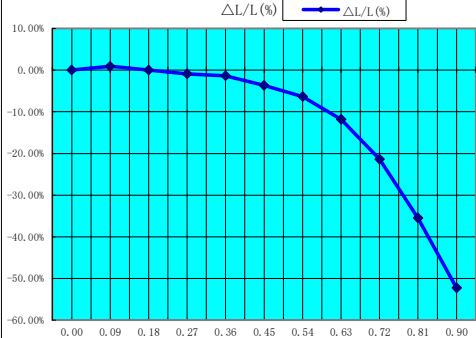
DATE 2025/2/13

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.	22.0 ± 20%	924 Max.	0.60 Max.	ΔL/L≤-30%	0.55 ΔT≤40℃ ℃			上限 下限	4.2 3.8	4.2 3.8 MAX
TEST FREQ.	100KHz/1V		100KHz/1V							
1	21.9	738	18.0	-17.81%	OK			4.01	4.02	1.15
2	23.4	758	18.3	-21.79%	OK			4.02	4.03	1.16
3	21.5	768	17.0	-20.93%	OK			4.03	4.03	1.14
4	23.2	755	18.6	-19.83%	OK			4.01	4.02	1.14
5	22.0	765	17.5	-20.45%	OK			4.00	4.02	1.14
6	21.9	763	17.4	-20.55%	OK			4.02	3.99	1.15
7	21.5	762	17.1	-20.47%	OK			4.02	3.98	1.16
8	21.7	759	16.9	-22.12%	OK			4.05	4.05	1.12
9	21.3	733	17.2	-19.25%	OK			3.99	4.06	1.11
10	22.3	733	17.4	-21.97%	OK			3.98	4.00	1.19
AVG.	22.070	753.4	17.54	-20.52%				4.013	4.02	1.146
R	2.1	35	1.7	4.31%				0.07	0.08	0.08

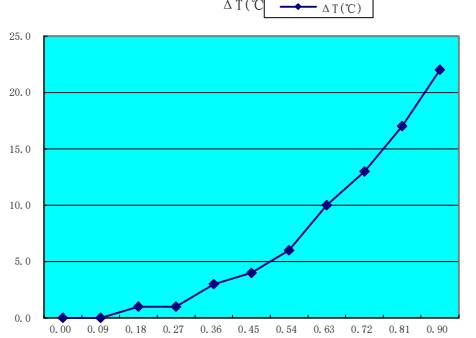
Isat(飽和電流):電感瞬間の突波電流

TME(秒)	Lsat(A)	L(UH)	ΔL/L(%)
1	0.00	22.00	0.00%
1	0.09	22.20	0.91%
1	0.18	22.00	0.00%
1	0.27	21.80	-0.91%
1	0.36	21.70	-1.36%
1	0.45	21.20	-3.64%
1	0.54	20.60	-6.36%
1	0.63	19.40	-11.82%
1	0.72	17.30	-21.36%
1	0.81	14.20	-35.45%
1	0.90	10.50	-52.27%



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TME(S)	Irms(A)	L(uH)	ΔL/L(%)	Temp(℃)	ΔT(℃)
30	0.00	21.70	0.00%	31.0	0.0
30	0.09	21.80	0.46%	31.0	0.0
30	0.18	21.40	-1.38%	32.0	1.0
30	0.27	21.00	-3.23%	32.0	1.0
30	0.36	20.40	-5.99%	34.0	3.0
30	0.45	19.90	-8.29%	35.0	4.0
30	0.54	19.20	-11.52%	37.0	6.0
30	0.63	18.10	-16.59%	41.0	10.0
30	0.72	16.30	-24.88%	44.0	13.0
30	0.81	13.90	-35.94%	48.0	17.0
30	0.90	11.10	-48.85%	53.0	22.0



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SPECIFICATION FOR APPROVAL

CUSTOMER

CUSTOMER'S P/N

JINKAI P/N: CKNR4012B-330MC

PART NO. CKNR4012B Series

DRAWN NO.

TEST R.H. 80~85%

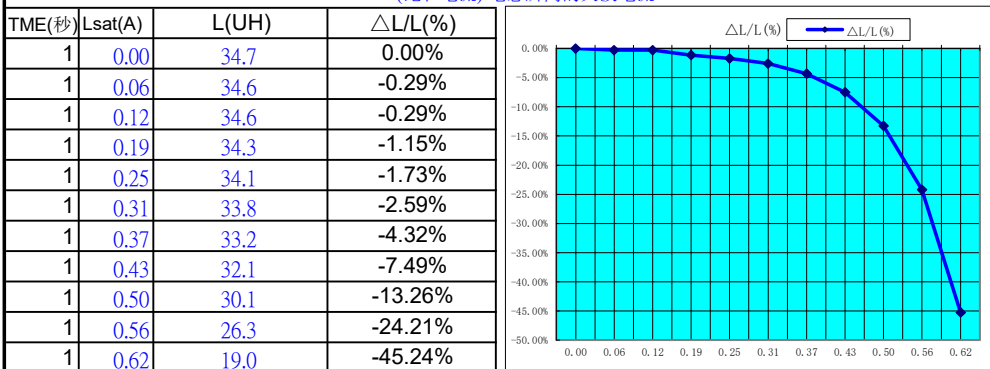
TEST TEMP. 20~25℃

DATE 2025/2/13

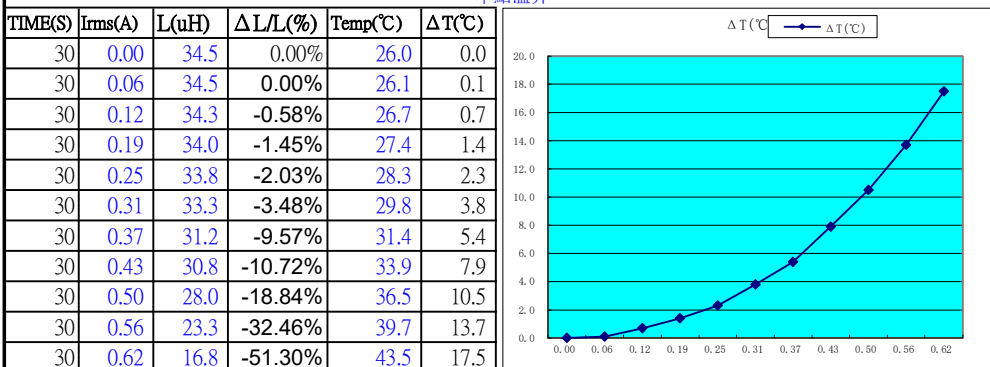
TEST DATA FOR PREPRODUCTION SAMPLE

TEST RESOLUTION							DIMENSION (Unit : mm)			
MEAS. ITEM	L μh	DCR mΩ	Isat A	ΔL/L	Irms A			長 mm	寬 mm	高 mm
SPEC.	33.0 ± 20%	1200 Max.	0.42 Max.	ΔL/L≤-30%	0.40 ΔT≤40℃ ℃			上限 下限	4.2 3.8	4.2 3.8 MAX
TEST FREQ.	100KHz/1V		100KHz/1V							
1	31.3	970	27.1	-13.42%	OK			4.01	4.02	1.15
2	32.2	1020	26.5	-17.70%	OK			4.02	4.03	1.16
3	31.5	1000	26.5	-15.87%	OK			4.03	4.03	1.14
4	31.4	980	26.3	-16.24%	OK			4.01	4.02	1.14
5	32.3	980	27.0	-16.41%	OK			4.00	4.02	1.14
6	32.2	1000	25.9	-19.57%	OK			4.02	3.99	1.15
7	31.6	1010	26.5	-16.14%	OK			4.02	3.98	1.16
8	32.4	1000	26.8	-17.28%	OK			4.05	4.05	1.12
9	31.3	1020	26.9	-14.06%	OK			3.99	4.06	1.11
10	32.3	1030	26.3	-18.58%	OK			3.98	4.00	1.19
AVG.	31.850	1001	26.58	-16.53%				4.013	4.02	1.146
R	1.1	60	1.2	6.15%				0.07	0.08	0.08

Isat(飽和電流):電感瞬間の突波電流



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承 认 书



SPECIFICATION FOR APPROVAL

CUSTOMER

CUSTOMER'S P/N

JINKAI P/N: CKNR4012B-470MC

PART NO. CKNR4012B Series

DRAWN NO.

TEST R.H. 80~85%

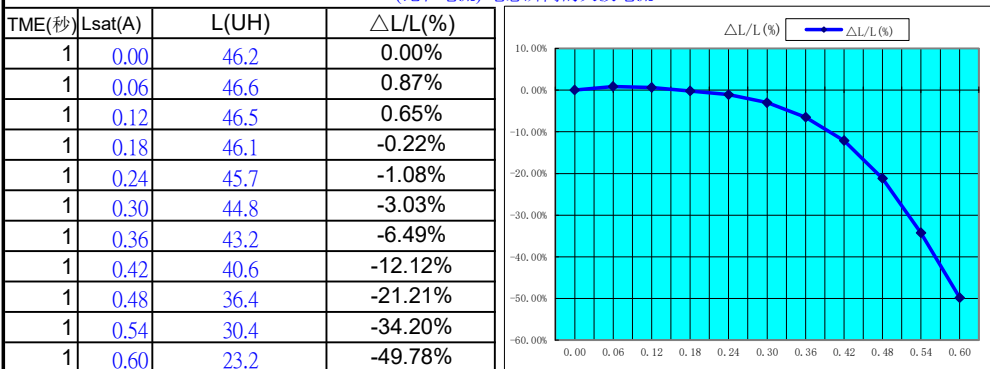
TEST TEMP. 20~25℃

DATE 2025/2/13

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.	47.0 ± 20%	1920 Max.	0.35 Max.	ΔL/L≤-30%	0.37 ΔT≤40℃ ℃			上限 下限	4.2 3.8	4.2 3.8 MAX
TEST FREQ.	100KHz/1V		100KHz/1V							
1	43.1	1550	40.0	-7.19%	OK			4.00	3.99	1.15
2	42.5	1560	39.1	-8.00%	OK			4.00	4.03	1.15
3	44.4	1530	39.8	-10.36%	OK			4.02	4.05	1.14
4	45.1	1600	40.0	-11.31%	OK			4.03	4.04	1.15
5	43.2	1550	39.0	-9.72%	OK			4.01	4.03	1.15
6	45.1	1530	40.3	-10.64%	OK			4.01	4.02	1.18
7	44.3	1580	40.0	-9.71%	OK			4.05	3.99	1.15
8	45.9	1550	40.0	-12.85%	OK			4.07	4.01	1.16
9	44.8	1550	40.2	-10.27%	OK			4.08	4.00	1.14
10	44.1	1520	40.5	-8.16%	OK			4.02	4.00	1.17
AVG.	44.250	1552	39.89	-9.82%				4.029	4.016	1.154
R	3.4	80	1.5	5.66%				0.08	0.06	0.04

Isat(飽和電流):電感瞬間的突波電流



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