

承认书

SPECIFICATIONFORAPPROVAL

CUSTOMER			
CUSTOMER'SP/N			
DATE	05/Mar/2025	REVISIONNO.	A
PARTNO.	CKNR4030Z Series		
DRAWNNO.			
DESCRIPTION.	SMD POWER INDUCTOR		
Customer's Signature			
Approved by	Checked by	Drawn by	
黄大燕	黄大燕	林树英	
05/Mar/2025	05/Mar/2025	05/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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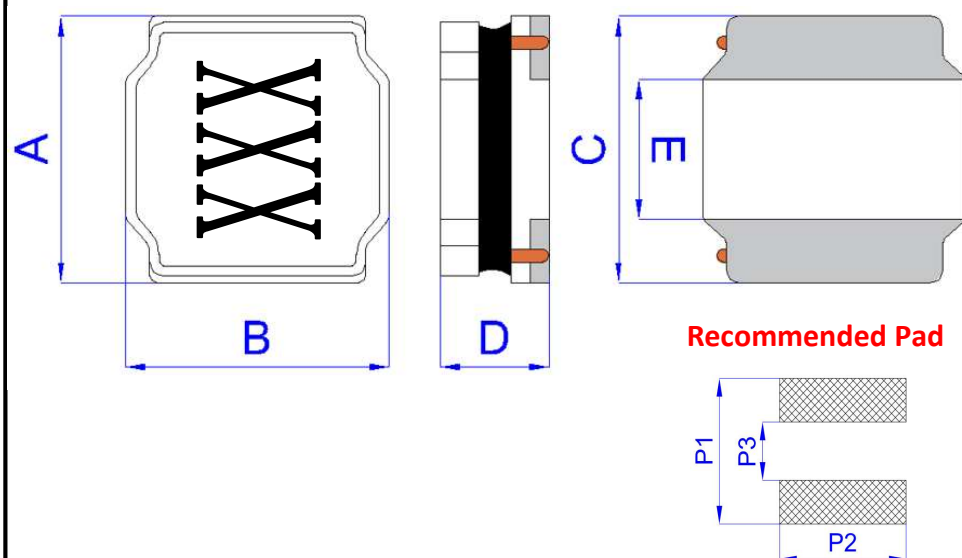


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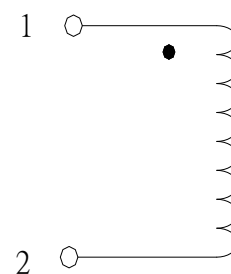
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DESCRIPTION.	SMD POWER INDUCTOR	DRAWNNO.	0
PARTNO.	CKNR4030Z Series	DATE	2025/3/5

1.SHAPE&DIMENSION

UNIT:mm



SCHEMATICS



MARKINGCOLO
R

Black

A	B	C	D	E	P1	P2	P3
4	4	4	3	2.1	4	3.7	1.6
±0.2	±0.2	±0.2	MAX	±0.07	Ref.	Ref.	Ref.

CK NR 4030 Z - 2R2 M C
1 2 3 4 5 6 7

- 1 CHKPRODUCTION(今凯制造)
- 2 PRODUCTCATEGORY (产品种类) NR-镍锌 NRS-合金
- 3 DIMENSIONS (尺寸规格)
- 4 MATERIALTYPE (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

APPROVEDBY	CHECKEDBY	DRAFTBY
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2.SERIESSPECIFICATION

◆CKNR4030Z Series Specification:

PartNumber	Inductance	Test Freq	DCR mΩ		Isat A		Irms A	
	(μH)		Max	Typ	Max	Typ	Max	Typ
CKNR4030Z-R68YC	0.68±30%	100KHz/1V	13	10	6.80	8.00	4.56	5.10
CKNR4030Z-1R0YC	1.0±30%		18	14	5.26	5.70	4.15	4.70
CKNR4030Z-1R2YC	1.2±30%		20	15	5.80	6.30	3.82	4.20
CKNR4030Z-1R5YC	1.5±30%		26	20	4.84	5.30	3.34	3.60
CKNR4030Z-1R8YC	1.8±30%		33	25	4.50	5.00	3.20	3.30
CKNR4030Z-2R2YC	2.2±30%		39	30	4.90	5.80	2.95	3.20
CKNR4030Z-3R3MC	3.3±20%		52	40	3.30	3.60	2.40	2.60
CKNR4030Z-3R9MC	3.9±20%		74	57	3.00	3.30	2.10	2.30
CKNR4030Z-4R3MC	4.3±20%		72	55	2.95	3.20	2.10	2.30
CKNR4030Z-4R7MC	4.7±20%		78	60	2.90	3.20	2.00	2.30
CKNR4030Z-5R6MC	5.6±20%		85	65	2.60	2.80	1.95	2.10
CKNR4030Z-6R8MC	6.8±20%		117	90	2.75	3.00	1.60	1.70
CKNR4030Z-7R5MC	7.5±20%		111	85	2.20	2.40	1.65	1.80
CKNR4030Z-8R2MC	8.2±20%		117	90	2.10	2.30	1.60	1.70
CKNR4030Z-100MC	10±20%		130	100	1.95	2.40	1.50	1.60
CKNR4030Z-120MC	12±20%		176	135	1.70	1.80	1.30	1.40
CKNR4030Z-150MC	15±20%		247	190	1.65	1.80	1.11	1.20
CKNR4030Z-180MC	18±20%		260	200	1.40	1.50	1.10	1.20
CKNR4030Z-220MC	22±20%		293	225	1.30	1.40	1.00	1.20
CKNR4030Z-330MC	33±20%		429	330	1.10	1.20	0.84	0.92
CKNR4030Z-360MC	36±20%		436	335	1.05	1.10	0.83	0.91
CKNR4030Z-390MC	39±20%		566	435	1.03	1.10	0.73	0.80
CKNR4030Z-470MC	47±20%		579	445	0.95	1.00	0.72	0.80
CKNR4030Z-510MC	51±20%		611	470	0.90	1.13	0.70	0.80
CKNR4030Z-560MC	56±20%		722	555	0.85	0.94	0.65	0.71
CKNR4030Z-620MC	62±20%		760	585	0.80	0.99	0.63	0.70
CKNR4030Z-680MC	68±20%		1128	868	0.72	0.80	0.52	0.57

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2.SERIESSPECIFICATION

◆CKNR4030Z Series Specification:

PartNumber	Inductance	Test Freq	DCR mΩ		Isat A		Irms A	
	(μH)	(Hz)	Max	Typ	Max	Typ	Max	Typ
CKNR4030Z-750MC	75±20%	100KHz/1V	1326	1020	0.70	0.88	0.48	0.53
CKNR4030Z-820MC	82±20%		1378	1060	0.66	0.72	0.47	0.52
CKNR4030Z-910MC	91±20%		1430	1100	0.65	0.71	0.46	0.50
CKNR4030Z-101MC	100±20%		1495	1150	0.60	0.73	0.45	0.49
CKNR4030Z-121MC	120±20%		1755	1350	0.55	0.60	0.42	0.46
CKNR4030Z-151MC	150±20%		2340	1800	0.50	0.55	0.30	0.35
CKNR4030Z-271KT	270±10%		4100	3200	0.32	0.37	0.21	0.28
CKNR4030Z-471KT	470±10%		9360	7200	0.30	0.35	0.20	0.23
CKNR4030Z-501MC	500±20%		9027	6944	0.28	0.30	0.15	0.20
CKNR4030Z-681MC	680±20%		9854	7580	0.19	0.20	0.14	0.18

◆TESTCONDITION

ITEM	TESTCONDITION	TESTINSTRUMENTS
L	100KHz/1V	Microtest6377
Isat		TH1773+Microtest6377
Irms		
DCR	25±5℃	TH2512B

*The operating temperature is 25℃

*Isat:For Inductance drop30% from its value without current

*Irms:ThevalueofD. Ccurrentwhenthe temperatureriseis $\Delta T \leq 40^{\circ}\text{C}$. (Ta=25℃)

*For CKNR4030Z Series size inductors, absolute maximum voltage:DC 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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3.MATERIALLIST&GENERALSPECIFICATION

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 (DrumCore)	镍锌 (Nickel-Zinc)	DJ	RoHS	Primary
铜线 (Wire)	PolyesterWireorequivalent	ELEKTRISOLA	RoHS	
胶水 (Glue)	Phenolicepoxyresin	DAJOO	RoHS	
锡 (Solder)	107H	QD	RoHS	Primary
锡 (Solder)	107H	TF	RoHS	Alternative

GENERALSPECIFICATION

Electricalspecifications:	at20~25℃
OperationTemperature:	-40~+125℃
StorageTemperature:	-40~+125℃

◆TESTCONDITION

ITEM	TESTCONDITION	TESTINSTRUMENTS
L	100KHz/1V	Microtest6377
Isat		TH1773+Microtest6377
Irms		
DCR	25±5℃	TH2512B

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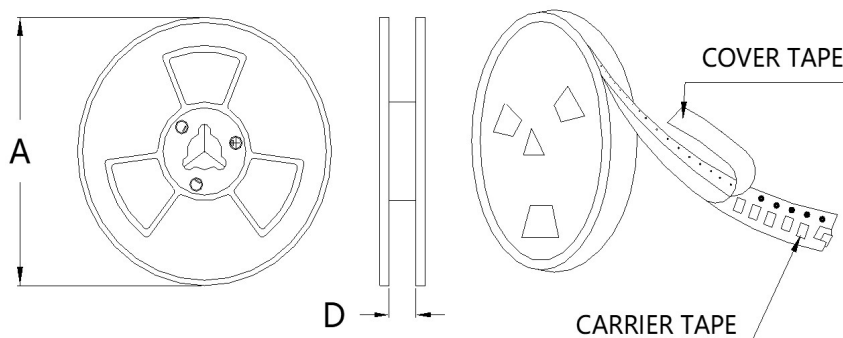
4.PACKAGING(unit:mm)

1.包装类型

2.包装尺寸

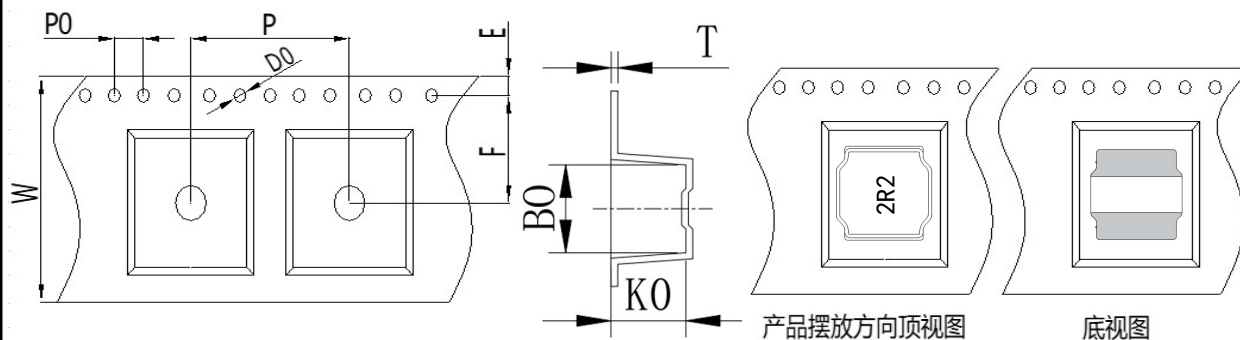
13"盘

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	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	3.1±0.1	

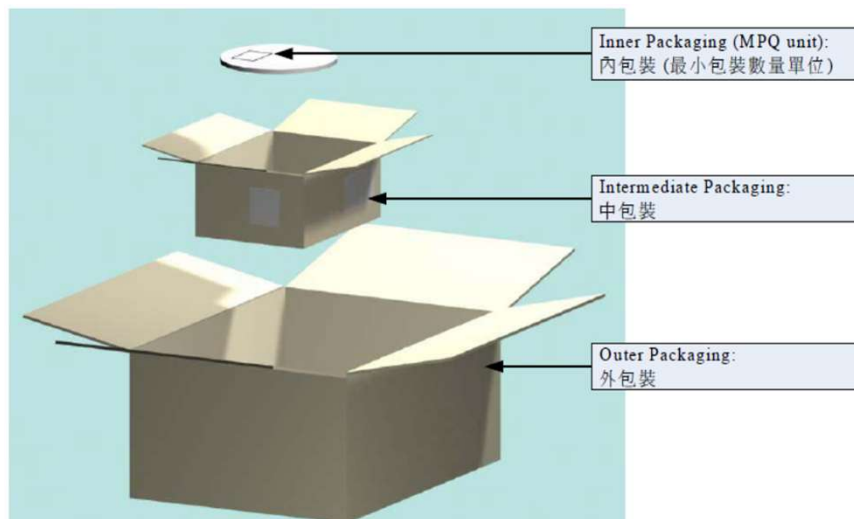
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5.CARTON



- 1.1外箱:36*36*23cm一箱装2内箱
- 1.2内箱:33.5*33.5*9cm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	2000	PCS
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内箱包装数量

每箱	5	卷,共	10000	PCS
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外箱包装数量

每箱	10	卷,共	20000	PCS
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6.RELIABILITYTEST

TestItems		TestConditions	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.SOLDERINGCONDITIONS

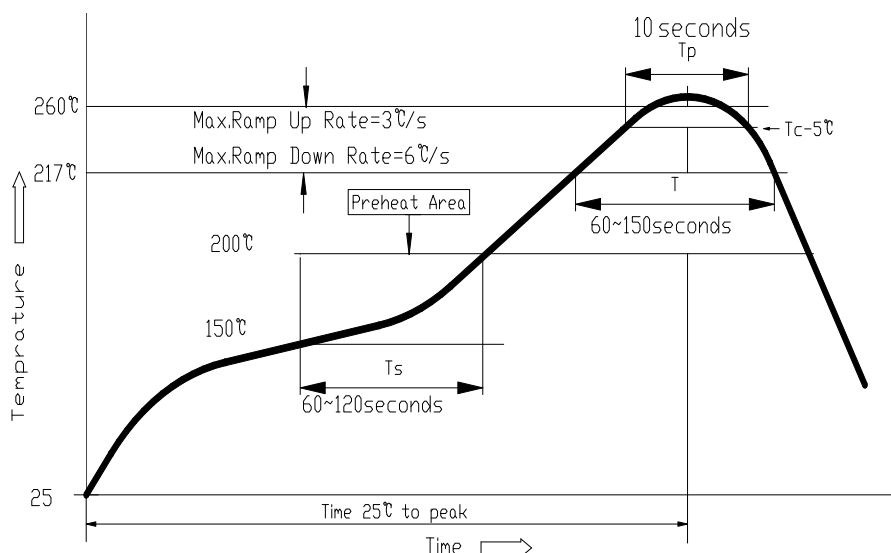
Applicable soldering process to the products is refl.

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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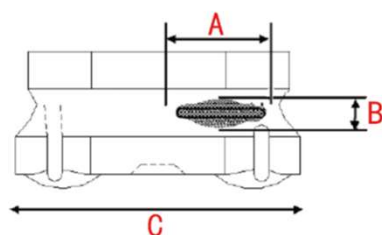


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8.Appearanceofthestandard

1.Void appearance tolerance limit



Size of voids occurring to coating resin is specified below.

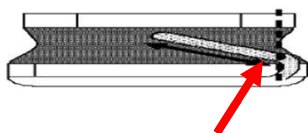
①Width direction(dimension A): Acceptable when $A \leq C/2$

Nonconforming when $B \geq C/2$

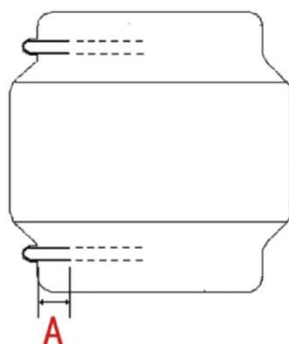
②Length direction(dimension B):Dimension b is not specified

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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