

承 认 书

SPECIFICATION FOR APPROVAL

CUSTOMER			
CUSTOMER'S P/N			
DATE	18/Mar/2025	REVISION NO.	A
PART NO.	CKNR8040Z 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



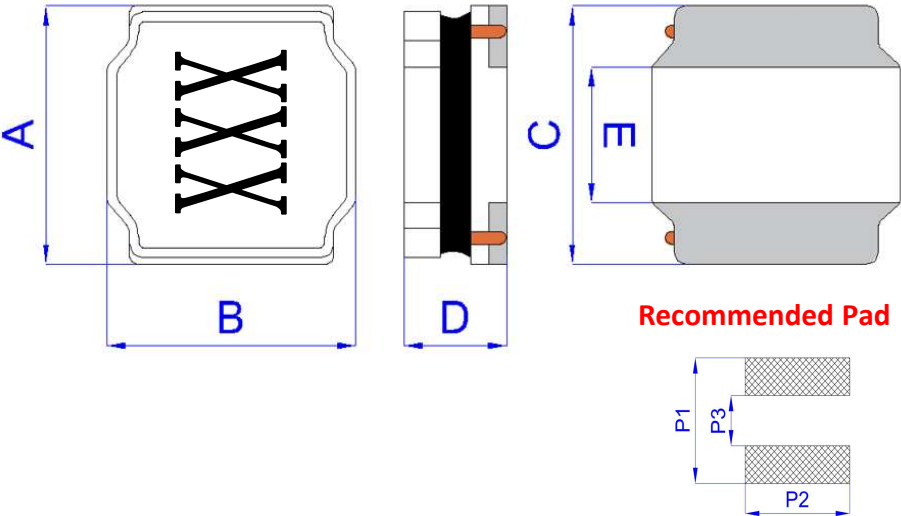
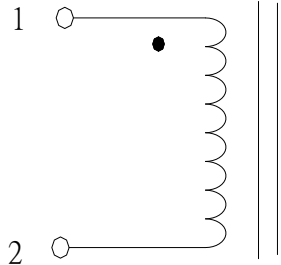
[illegible]



广东今凯电子科技有限公司
GUANG DONG CHK ELECTRONIC TECH Co., Ltd

CUSTOMER	0	REVISION NO.	A
CUSTOMER'S P/N	0	PAGE	P 1/8
DESCRIPTION.	SMD POWER INDUCTOR	DRAWN NO.	0
PART NO.	CKNR8040Z Series	DATE	2025/3/18

1.SHAPE & DIMENSION

UNIT: mm					SCHEMATICS		
							
					MARKING COLOR		
					BLACK		
A	B	C	D	E	P1	P2	P3
8	8	8	4	3.1	8.2	7.7	3.8
±0.2	±0.2	±0.2	MAX	±0.3	Ref.	Ref.	Ref.

备注: 1R0/1R5/2R2/3R3 焊锡前高度为3.99mm, 所以高度为4.2mmMAX

PART NUMCERING SYSTEM

CK NR 8040 Z - 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		



广东今凯电子科技有限公司

GUANG DONG CHK ELECTRONIC TECH Co., Ltd

CUSTOMER	0	REVISION NO.	A
CUSTOMER'S P/N	0	PAGE	P 2/8
DESCRIPTION.	SMD POWER INDUCTOR	DRAWN NO.	0
PART NO.	CKNR8040Z Series	DATE	2025/3/18

2.SERIES SPECIFICATION

◆ CKNR8040Z Series

Specification:

Part Number	Inductance	Test Freq	DCR($m\Omega$)		Saturation Current (A)		Temp. Rise Current (A)	
	(μH)	(Hz)	Max	Typ	Max	Typ	Max	Typ
CKNR8040Z-R50MC	0.50	100kHz/1V	7	5.5	15.0	17.0	10.0	12.0
CKNR8040Z-R90MC	0.90		10	8.2	13.0	13.8	8.0	8.5
CKNR8040Z-1ROMC	1.00		10	8.2	13.0	13.8	8.0	8.5
CKNR8040Z-1R2MC	1.20		10	8.2	11.5	12.8	7.8	8.3
CKNR8040Z-1R4MC	1.40		12	10.0	11.2	11.8	7.8	8.2
CKNR8040Z-1R5MC	1.50		12	10.0	11.0	11.5	7.7	8.0
CKNR8040Z-1R6MC	1.60		12	10.0	11.0	11.5	7.7	8.0
CKNR8040Z-1R8MC	1.80		13	10.5	10.0	10.5	7.3	7.7
CKNR8040Z-2ROMC	2.00		13	11.0	9.6	10.2	7.1	7.5
CKNR8040Z-2R2MC	2.20		14	11.5	9.2	9.8	6.9	7.4
CKNR8040Z-2R7MC	2.70		16	13.0	8.2	9.0	6.5	7.0
CKNR8040Z-3ROMC	3.00		17	14.0	7.7	8.3	6.5	6.8
CKNR8040Z-3R3MC	3.30		18	15.0	7.5	8.0	6.2	6.6
CKNR8040Z-3R6MC	3.60		18	15.0	7.0	7.6	6.0	6.4
CKNR8040Z-3R9MC	3.90		19	16.0	6.6	7.0	5.8	6.1
CKNR8040Z-4R7MC	4.70		23	19.5	6.0	6.7	5.3	5.8
CKNR8040Z-5R6MC	5.60		26	22.0	5.8	6.2	5.2	5.4
CKNR8040Z-6R8MC	6.80		30	25.0	5.1	5.6	5.0	5.1
CKNR8040Z-8R2MC	8.20		36	30.0	4.6	5.3	4.5	4.8
CKNR8040Z-100MC	10.0		40	33.0	4.3	5.0	4.2	4.6
CKNR8040Z-150MC	15.0		60	50.0	3.6	4.0	3.2	3.6
CKNR8040Z-180MC	18.0		68	57.0	3.1	3.3	3.0	3.4
CKNR8040Z-220MC	22.0		88	73.0	2.8	3.1	2.5	2.9
CKNR8040Z-270MC	27.0		101	84.0	2.5	2.9	2.3	2.6

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



广东今凯电子科技有限公司

GUANG DONG CHK ELECTRONIC TECH Co., Ltd

CUSTOMER	0	REVISION NO.	A
CUSTOMER'S P/N	0	PAGE	P 2/8
DESCRIPTION.	SMD POWER INDUCTOR	DRAWN NO.	0
PART NO.	CKNR8040Z Series	DATE	2025/3/18

2.SERIES SPECIFICATION

Part Number	Inductance	Test Freq	DCR($m\Omega$)		Saturation Current (A)		Temp. Rise Current (A)	
	(μH)	(Hz)	Max	Typ	Max	Typ	Max	Typ
CKNR8040Z-330MC	33.0	100KHz/1V	120	100	2.10	2.60	2.10	2.30
CKNR8040Z-390MC	39.0		144	120	2.00	2.40	1.90	2.15
CKNR8040Z-470MC	47.0		162	135	1.90	2.20	1.70	2.00
CKNR8040Z-560MC	56.0		192	160	1.60	1.90	1.60	1.75
CKNR8040Z-680MC	68.0		246	205	1.50	1.75	1.50	1.65
CKNR8040Z-820MC	82.0		276	230	1.40	1.60	1.30	1.40
CKNR8040Z-101MC	100		360	300	1.20	1.45	1.10	1.20
CKNR8040Z-121MC	120		420	350	1.10	1.30	1.00	1.10
CKNR8040Z-151MC	150		492	410	1.03	1.20	0.90	0.98
CKNR8040Z-181MC	180		588	490	0.94	1.04	0.83	0.91
CKNR8040Z-221MC	220		732	610	0.90	0.99	0.76	0.85
CKNR8040Z-271MC	270		888	740	0.80	0.85	0.70	0.77
CKNR8040Z-331MC	330		1020	850	0.70	0.75	0.66	0.70
CKNR8040Z-471MC	470		1560	1300	0.55	0.60	0.58	0.63
CKNR8040Z-681MC	680		2640	2200	0.50	0.55	0.55	0.60

◆TEST CONDITION

ITEM	TEST CONDITION	TEST INSTRUMENTS
L	100KHz/1V	Microtest 6377
Isat		TH1773+Microtest 6377
Irms		
DCR	25 $\pm$ 5 $^{\circ}$ C	TH2512B

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



广东今凯电子科技有限公司
GUANG DONG CHK ELECTRONIC TECH Co., Ltd

CUSTOMER	0	REVISION NO.	A
CUSTOMER'S P/N	0	PAGE	P 3/8
DESCRIPTION.	SMD POWER INDUCTOR	DRAWN NO.	0
PART NO.	CKNR8040Z 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 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℃

*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 CKNR8040Z Series siZ inductors, absolute maximum voltage: $E \leq 50 \text{ V}$.

※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



广东今凯电子科技有限公司

GUANG DONG CHK ELECTRONIC TECH Co., Ltd

CUSTOMER	0	REVISION NO.	A
CUSTOMER'S P/N	0	PAGE	P 4/8
DESCRIPTION.	SMD POWER INDUCTOR	DRAWN NO.	0
PART NO.	CKNR8040Z Series	DATE	2025/3/18

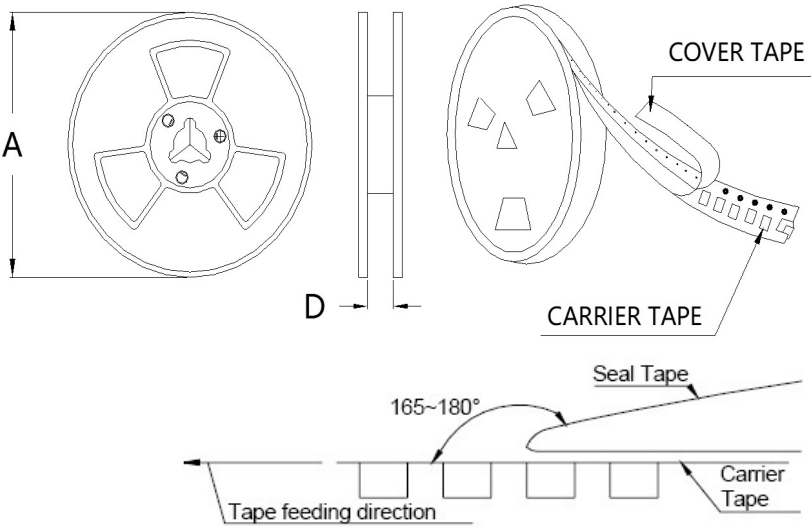
4.PACKAGING(unit: mm)

1.包装类型

2.包装尺寸

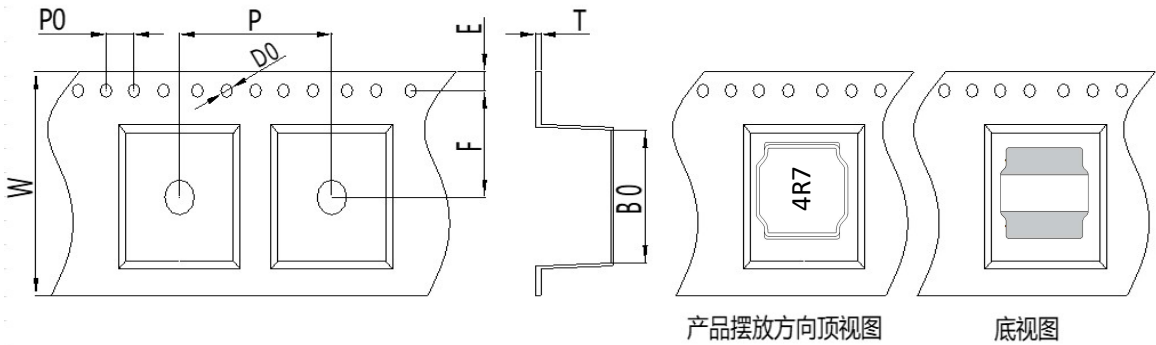
13" 盘

7" 盘



	13" 盘	7" 盘
A	$\Phi 330 \pm 2.0$	$\Phi 178 \pm 2.0$
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		
DIM(mm)	16.0±0.3	8.3±0.1	12.0±0.1	0.4±0.1	1.75±0.1	7.5±0.1	1.5±0.1	4.0±0.1		

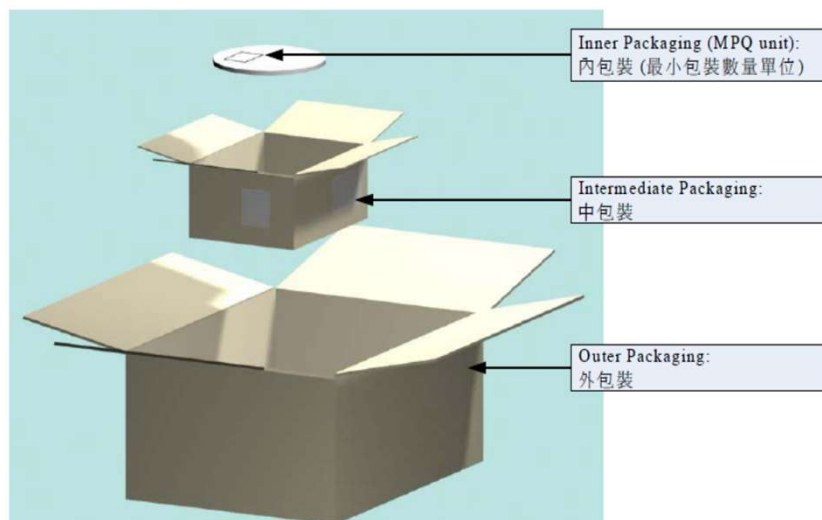
APPROVED BY	CHECKED BY	DRAFT
黄大燕	黄大燕	林树英



广东今凯电子科技有限公司
GUANG DONG CHK ELECTRONIC TECH Co., Ltd

CUSTOMER	0	REVISION NO.	A
CUSTOMER'S P/N	0	PAGE	P 5/8
DESCRIPTION.	SMD POWER INDUCTOR	DRAWN NO.	0
PART NO.	CKNR8040Z Series	DATE	2025/3/18

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4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

1.9 出货标签规格如下: 尺寸=长度:39mm 宽度:29mm

(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 1000 PCS

外箱包装数量

每箱 8 卷,共 8000 PCS

内箱包装数量

每箱 2 卷,共 2000 PCS

APPROVED BY	CHECKED BY	DRAFT
黄大燕	黄大燕	林树英



广东今凯电子科技有限公司

GUANG DONG CHK ELECTRONIC TECH Co., Ltd

CUSTOMER	0	REVISION NO.	A
CUSTOMER'S P/N	0	PAGE	P 6/8
DESCRIPTION.	SMD POWER INDUCTOR	DRAWN NO.	0
PART NO.	CKNR8040Z Series	DATE	2025/3/18

6. RELIABILITY TEST

Test Items		Test Conditions	Criteria
1	Low temperature storage	Placed at -40°C for 500 hours, then measured at room aMCient 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 aMCient 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 NuMCer 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 aMCient temperature after placing 24 hours.	Inductance shall be within $\pm 10\%$ of the initial value. Insulation resistance > 100MΩ at DC
5	Drop	Drop specimen three times on concrete floor from a height of 1 meter which mounted on test board	Inductance shall be within $\pm 10\%$ of the initial value.
6	Vibration	Frequency::10~55~10Hz 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±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±5°C, 10±1 sec, 2) 350±10°C, 3.5±0.5 sec	Inductance shall be within $\pm 10\%$ of the initial value. Apperance: No damage

APPROVED BY	CHECKED BY	DRAFT
黄大燕	黄大燕	林树英



CUSTOMER	0	REVISION NO.	A
CUSTOMER'S P/N	0	PAGE	P 7/8
DESCRIPTION.	SMD POWER INDUCTOR	DRAWN NO.	0
PART NO.	CKNR8040Z Series	DATE	2025/3/18

7. SOLDERING CONDITIONS

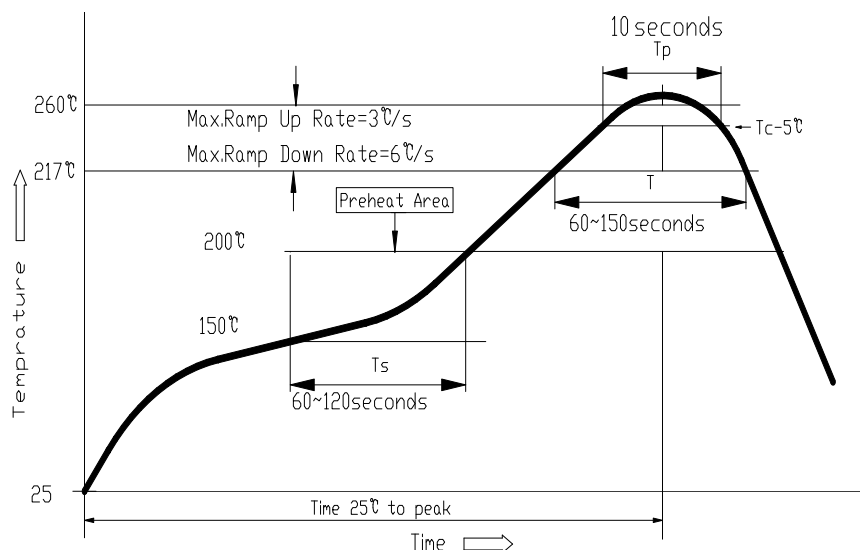
Applicable soldering process to the products is refl.

9.1 Soldering Materials

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

(2) Flux: Use rosin-based flux, but not strongly acidic flux (with chlorine 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°C ;
- ② Soldering iron power output: $\leq 30\text{W}$;
- ③ Diameter of soldering iron end: $\leq 1.0\text{mm}$;
- ④Soldering time: $< 3\text{ s}$



APPROVED BY	CHECKED BY	DRAFT
黄大燕	黄大燕	林树英

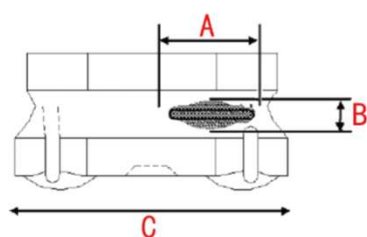


广东今凯电子科技有限公司
GUANG DONG CHK ELECTRONIC TECH Co., Ltd

CUSTOMER	0	REVISION NO.	A
CUSTOMER'S P/N	0	PAGE	P 8/8
DESCRIPTION.	SMD POWER INDUCTOR	DRAWN NO.	0
PART NO.	CKNR8040Z Series	DATE	2025/3/18

8.Appearance of the standard

1.Void appearance tolerance limit



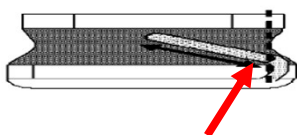
SiZ of voids occurring to coating resin is specified below.

①Width direction(dimension A) Acceptable when $A \leq C/2$
Nonconforming when $B \geq C/2$

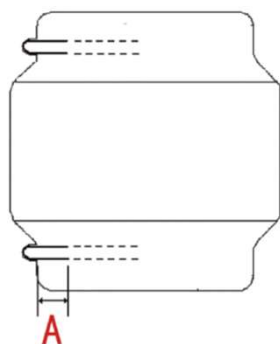
②Length direction(dimension B):Dimension b is not specified

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 $A > 0.8\text{mm}$

APPROVED BY	CHECKED BY	DRAFT
黄大燕	黄大燕	林树英