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

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

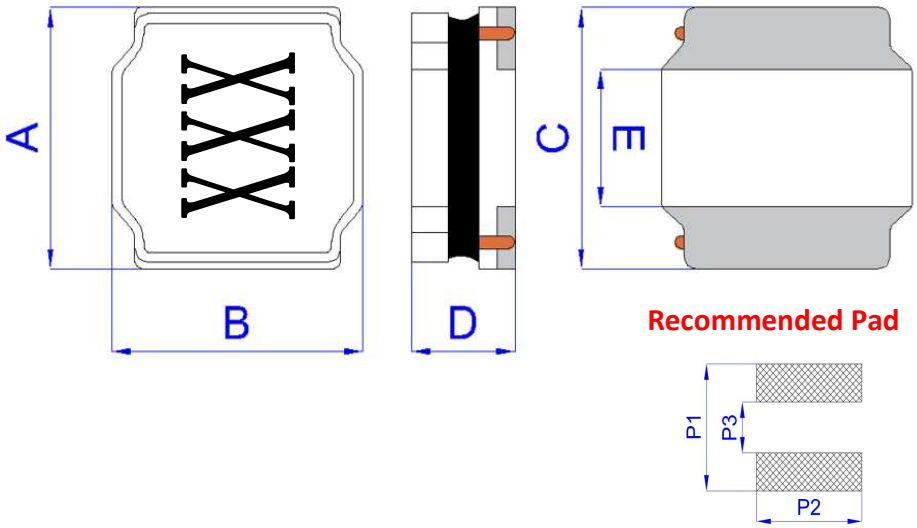
广 东 今 凯 电 子 科 技 有 限 公 司

GUANG DONG CHK ELECTRONIC TECH Co., Ltd

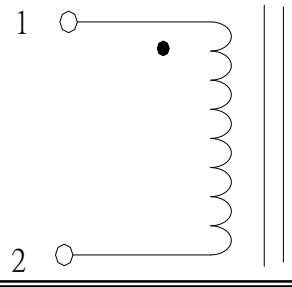
CUSTOMER	0	REVISION NO.	A
CUSTOMER'S P/N	0	PAGE	P 1/8
DESCRIPTION.	SMD POWER INDUCTOR	DRAWN NO.	0
PART NO.	CKNR8040Z Series	DATE	2025/3/18

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

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 NuMCer	Inductance	Test Freq	DCR(mΩ)		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-1R0MC	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-2R0MC	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-3R0MC	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

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 NuMCer	Inductance	Teat Freq	DCR(mΩ)		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±5℃	TH2512B

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

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 equlvalent	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 △T≦40℃.(Ta=25℃)

*For CKNR8040Z Series siZ inductors,absolute maximum voltage: D 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※

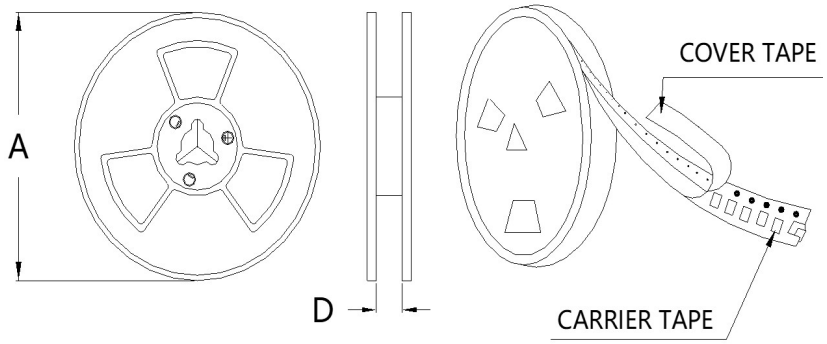
APPROVED BY	CHECKED BY	DRAWN BY
黄大燕	黄大燕	林树英

广 东 今 凯 电 子 科 技 有 限 公 司
GUANG DONG CHK ELECTRONIC TECH Co., Ltd

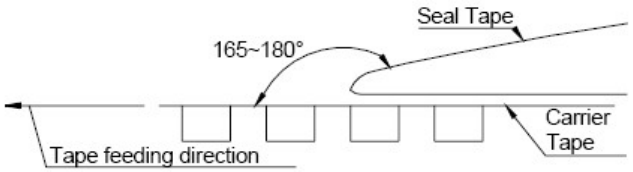
CUSTOMER	0	REVISION NO.	A
CUSTOMER'S P/N	0	PAGE	P 4/8
DESCRIPTION.	SMD POWER INDUCTOR	DRAWN NO.	0
PART NO.	CKNR8040Z Series	DATE	2025/3/18

4.PACKAGING(unit: mm)

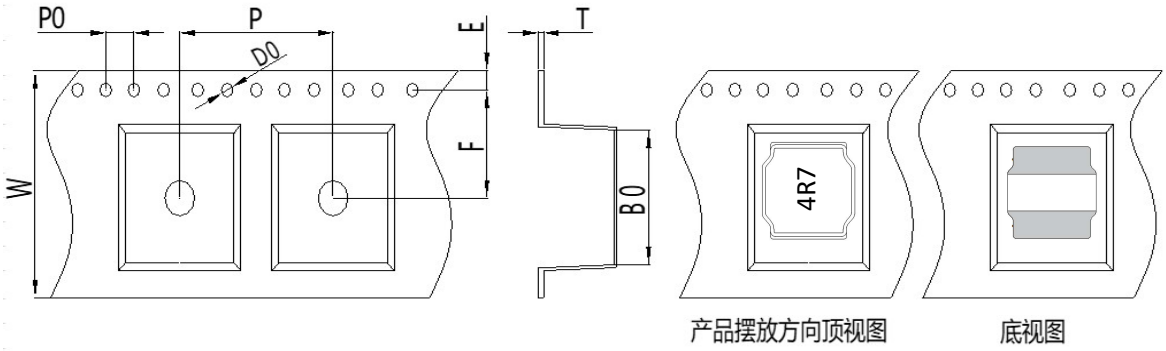
1.包装类型 **2.包装尺寸** ■ 13″ 盘 7″ 盘



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



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



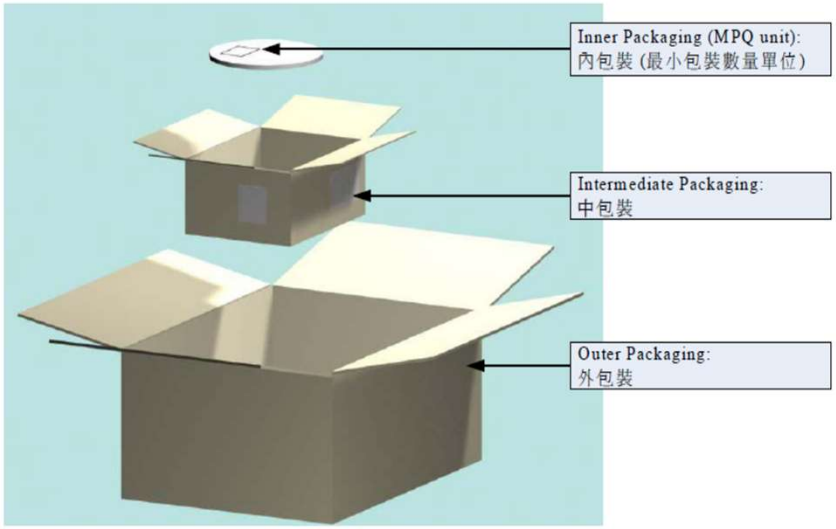
Item	W	B0	P	T	E	F	D0	P0		
DIM(mm)	16.0±0.3	8.3±0.1	12.0±0.1	0.4±0.1	1.75±0.1	7.5±0.1	1.5±0.1	4.0±0.1		

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 外箱材質: A三A
1.4 内箱材質: 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

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℃ for 500 hours, then measured at room aMCient 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 aMCient temperature after placing 24 hours	Inductance shall be within ± 10% of the initial value.
3	Thermal shock	Condition for 1 cycle: -40℃,30min.~+125℃,30min NuMCer 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 aMCient temperature after placing 24 hours.	Inductance shall be within ± 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 ± 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 ± 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℃, 10±1 sec, 2) 350±10℃, 3.5±0.5 sec	Inductance shall be within ± 10% of the initial value. Apperance: No damage

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

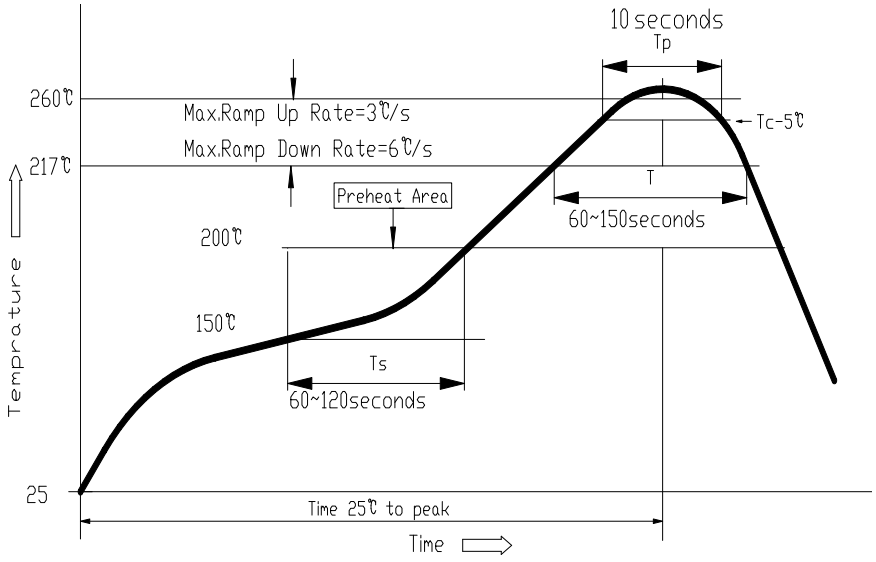
Applicable soldering process to the products is refl.

9.1 Soldering Materials

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

(2) Flux:Use rosin-based flux,but not strongly acidic flux (with 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

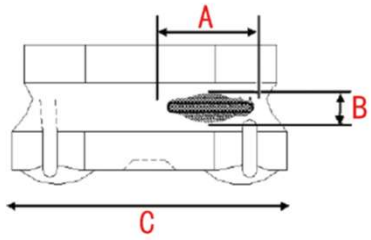


APPROVED BY	CHECKED BY	DRAFT
黄大燕	黄大燕	林树英

CUSTOMER	0	REVISION NO.	A
CUSTOMER'S P/N	0	PAGE	P 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.

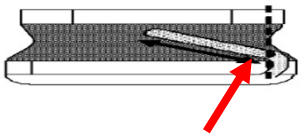
①Width direction(dimension A): Acceptable when A<=C/2

Nonconforming when B>=C/2

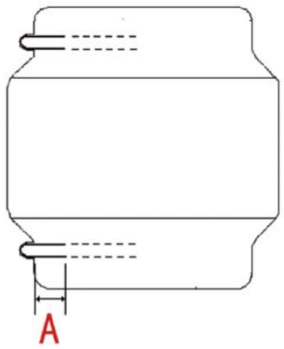
②Length direction(dimension B):Dimension b is not specified

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
黄大燕	黄大燕	林树英