

# APPROVAL SPECIFICATION

**PRODUCT NAME:**

**KOOMAG PN:** KMKC3015 Series

**CUSTOMER PN:**

## CUSTOMER RESPONSE

<input type="checkbox"/> Approval <input type="checkbox"/> Approval with the following changes <input type="checkbox"/> Reject		
APPROVED BY	SIGNATURE	DATE

## KOOMAG ENGINEERING SIGNATURE

APPROVED BY	CHECKED BY	ISSUED BY
DATE	DATE	DATE

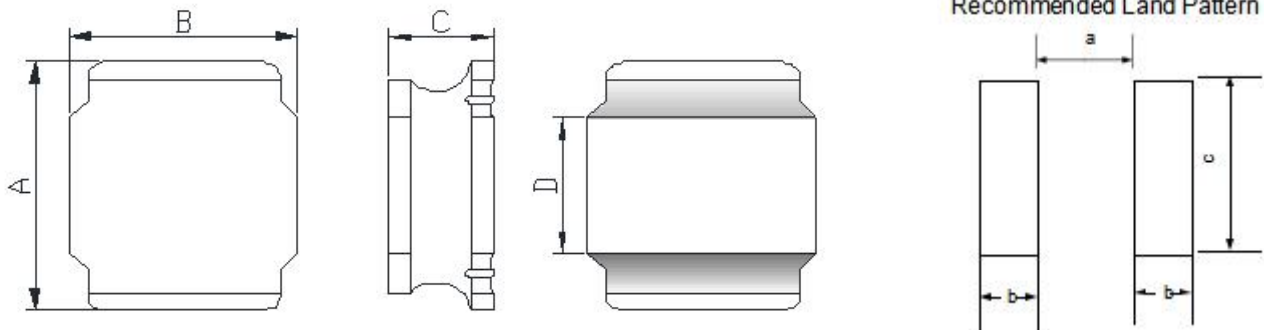
深圳坤磁科技有限公司  
 SHENZHEN KOOMAG TECHNOLOGY CO., LTD

Address: B503, Building B, HuaChuangDa Headquarters Building, Bao'an 49 District, Shenzhen

## General Description

This specification applies to the KMKC3015 Series of wire wound SMD power inductor.

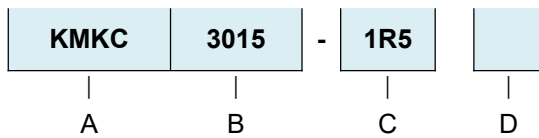
## Appearance & Shape



## Dimension (Unit:mm)

NO	Series	A	B	C	D	a	b	c
1	KMKC3015	3.0±0.2	3.0±0.2	1.5 Max	1.5±0.2	1.5Typ	0.8Typ	2.7Typ

## Part Number



A:Series name (产品品名)

B:Dimensions (产品尺寸)

C:Inductance value (电感值) 1R5: 1.5μH 221: 220μH

D:Tolerance (误差值) M: ±20%; N: ±30%

## Electrical Characteristics

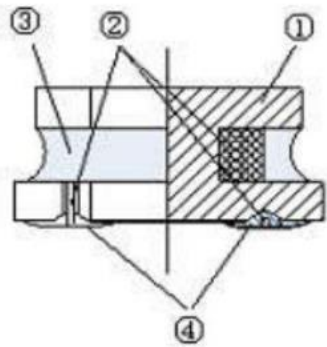
Please refer to Item 5.

- 1). Operating temperature range (individual chip without packing):  $-40^{\circ}\text{C} \sim +125^{\circ}\text{C}$  .
- 2). Storage temperature range (packaging conditions):  $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$  and RH 70% (Max.).
- 3). Rating DC current: Temperature rise( $\Delta T$ ) is  $40^{\circ}\text{C}$  approximately at Irms.
- 4). Saturation DC current: Inductance drop approximately 30% of L0 at Isat.

NO	Part Number	Inductance	DC Resistance		I <sub>sat</sub> (A)		I <sub>rms</sub> (A)		Marking
		100KHz/1.0V	Max.	Typ.	Max.	Typ.	Max.	Typ.	
	Units	( $\mu\text{H}$ )	$\Omega$	$\Omega$	A	A	A	A	
1	KMKC3015-1R0N	1.0 $\pm$ 30%	0.048	0.039	2.10	2.50	2.10	2.35	1R0
2	KMKC3015-1R5N	1.5 $\pm$ 30%	0.065	0.050	1.80	2.70	1.82	2.20	1R5
3	KMKC3015-2R2M	2.2 $\pm$ 20%	0.078	0.060	1.60	2.00	1.60	2.00	2R2
4	KMKC3015-3R3M	3.3 $\pm$ 20%	0.104	0.080	1.21	1.81	1.23	1.60	3R3
5	KMKC3015-4R7M	4.7 $\pm$ 20%	0.163	0.125	1.02	1.40	1.09	1.30	4R7
6	KMKC3015-6R8M	6.8 $\pm$ 20%	0.260	0.200	0.85	1.10	0.85	1.10	6R8
7	KMKC3015-100M	10 $\pm$ 20%	0.325	0.250	0.72	0.92	0.77	0.90	100
8	KMKC3015-150M	15 $\pm$ 20%	0.455	0.350	0.66	0.88	0.65	0.72	150
9	KMKC3015-220M	22 $\pm$ 20%	0.598	0.460	0.52	0.68	0.57	0.69	220
10	KMKC3015-330M	33 $\pm$ 20%	1.066	0.820	0.44	0.53	0.43	0.51	330
11	KMKC3015-470M	47 $\pm$ 20%	1.625	1.250	0.35	0.43	0.35	0.44	470
12	KMKC3015-560M	56 $\pm$ 20%	1.980	1.480	0.30	0.33	0.28	0.33	560
13	KMKC3015-680M	68 $\pm$ 20%	3.51	2.10	0.24	0.32	0.27	0.29	680
14	KMKC3015-101M	100 $\pm$ 20%	4.043	3.110	0.23	0.25	0.21	0.25	101
15									
16									
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※Design as Customer's Requested Specifications. (可按顾客的特殊需求设计)

## Structure (The structure of product.)



NO	Components	Material
1	Core	Ni-Zn Ferrite
2	Wire	Polyurethane system enameled copper wire
3	Magnetic Glue	Epoxy resin and magnetic powder
4	Plating	AgNiSn or FeNiCu + Sn Alloy

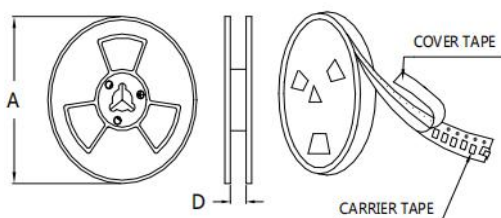
## Packaging(unit:mm)

1. Tape Dimensions(Unit:mm)

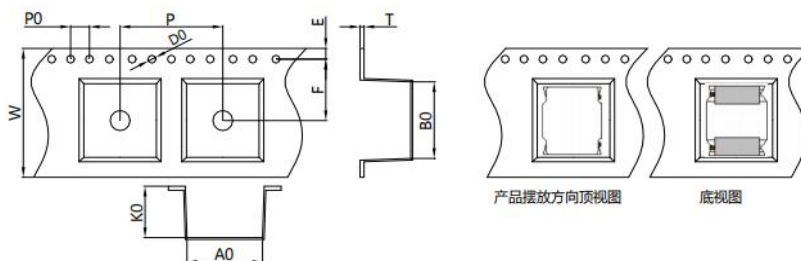
2.Reel

13" 盘

7" 盘



	13" 盘	7" 盘
A	$\Phi 330 \pm 2.0$	$\Phi 178 \pm 2.0$
D	8.5	



Size	Item	W	A0	B0	K0	P	T	E	F	D0	P0
3015	(mm)	$8.00 \pm 0.3$	$2.0 \pm 0.15$	$2.4 \pm 0.15$	$1.2 \pm 0.1$	$4.0 \pm 0.1$	$0.25 \pm 0.1$	$1.75 \pm 0.1$	$3.5 \pm 0.1$	$1.5 \pm 0.1$	$4.0 \pm 0.1$

Part No.	Tape	MPQ
3015	Embossed Tape	2000PCS

## Soldering Condition Sproduct

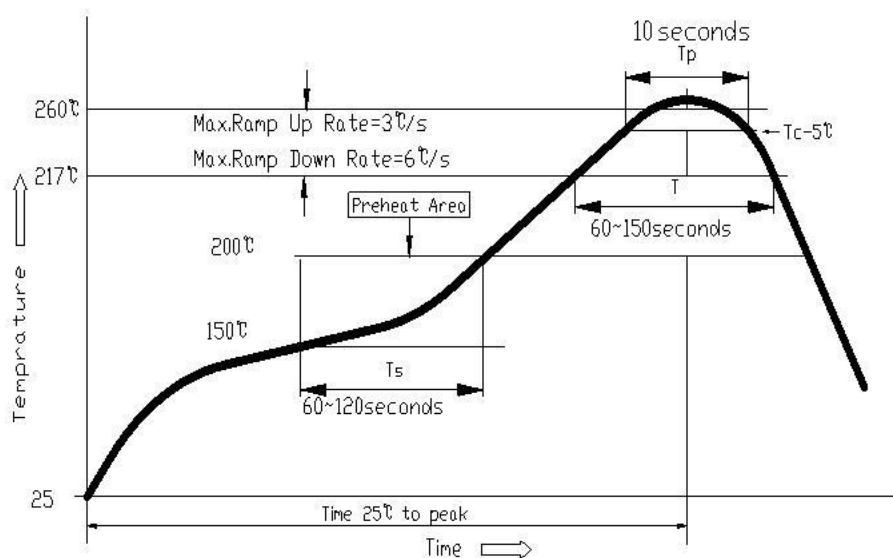
Applicable soldering process to the products is refl.

### 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.

### 2.Reflow Soldering Profile



### 3.Solderin glron

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:< 3s.

