

# APPROVAL SPECIFICATION

**PRODUCT NAME:**

**KOOMAG PN:** KMKC80 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

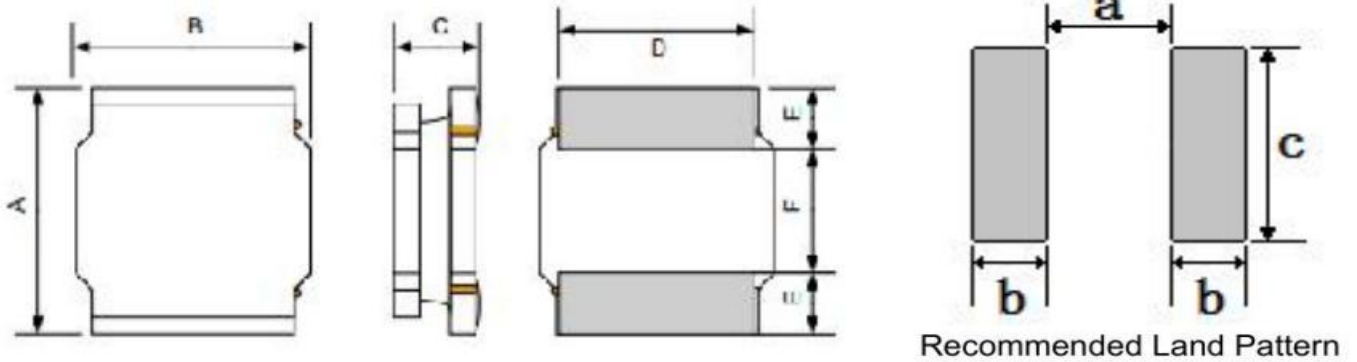
深圳坤磁科技有限公司  
SHENZHEN KOOMAG TECHNOLOGY CO., LTD

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

## General Description

This specification applies to the KMKC80 Series of wire wound SMD power inductor.

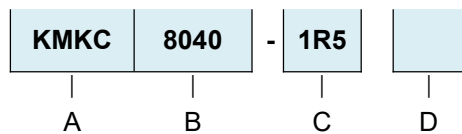
## Appearance & Shape



## Dimension (Unit:mm)

NO	Series	A	B	C	D	E	F	a Typ.	b Typ.	c Typ.
1	KMKC8040	8.0±0.3	8.0±0.3	4.2 Max	6.3±0.3	2.0±0.3	4.0±0.3	3.8	2.2	7.5

## 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) K: ±10%; M: ±20%; N: ±30%

## Electrical Characteristics

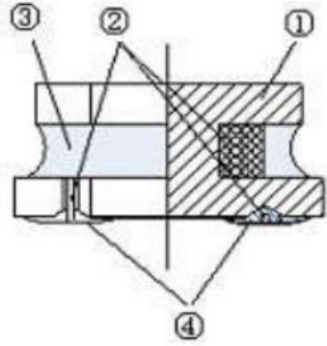
Please refer to Item 5.

- 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	KMKC8040-1R0N	1.0 $\pm$ 30%	0.010	0.008	9.85	14.00	6.30	6.90	1R0
2	KMKC8040-1R5N	1.5 $\pm$ 30%	0.013	0.010	8.15	11.00	5.65	6.20	1R5
3	KMKC8040-2R2M	2.2 $\pm$ 20%	0.016	0.013	7.10	8.00	5.15	5.60	2R2
4	KMKC8040-3R3M	3.3 $\pm$ 20%	0.022	0.015	6.50	7.00	4.40	4.80	3R3
5	KMKC8040-4R7M	4.7 $\pm$ 20%	0.030	0.023	5.90	6.50	4.10	4.50	4R7
6	KMKC8040-6R8M	6.8 $\pm$ 20%	0.039	0.029	4.55	5.20	3.60	3.40	6R8
7	KMKC8040-100M	10.0 $\pm$ 20%	0.043	0.037	3.60	4.10	3.30	3.60	100
8	KMKC8040-150M	15.0 $\pm$ 20%	0.065	0.053	2.95	3.40	2.60	2.80	150
9	KMKC8040-220M	22.0 $\pm$ 20%	0.090	0.081	2.40	2.70	2.10	2.30	220
10	KMKC8040-330M	33.0 $\pm$ 20%	0.130	0.108	2.05	2.40	1.80	2.00	330
11	KMKC8040-470M	47.0 $\pm$ 20%	0.200	0.164	1.75	2.20	1.55	1.70	470
12	KMKC8040-680M	68.0 $\pm$ 20%	0.255	0.220	1.45	1.60	1.25	1.40	680
13	KMKC8040-101M	100.0 $\pm$ 20%	0.475	0.360	1.15	1.30	1.00	1.10	101
14	KMKC8040-151M	150.0 $\pm$ 20%	0.680	0.550	1.10	1.10	0.80	0.94	151
15	KMKC8040-221M	220.0 $\pm$ 20%	1.100	0.860	0.85	0.94	0.80	0.88	221
16	KMKC8040-331M	330.0 $\pm$ 20%	1.460	1.170	0.68	0.75	0.64	0.70	331
17	KMKC8040-471M	470.0 $\pm$ 20%	2.475	1.980	0.60	0.70	0.50	0.60	471
18									
19									
20									

※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

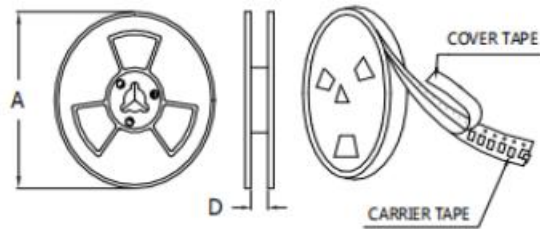
## Packaging(unit:mm)

1.Tape Dimensions(Unit:mm)

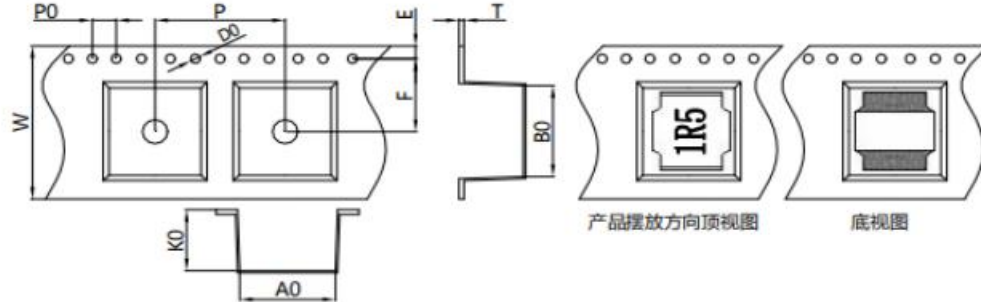
2.Reel

13" 盘

7" 盘



	13" 盘	7" 盘
A	$\Phi 330 \pm 2.0$	$\Phi 178 \pm 2.0$
D	16.5	



Size	Item	W	A0	B0	K0	P	T	E	F	D0	P0
8040	(mm)	$16 \pm 0.3$	$8.4 \pm 0.1$	$8.4 \pm 0.1$	$4.4 \pm 0.1$	$12 \pm 0.1$	$0.4 \pm 0.1$	$1.75 \pm 0.1$	$7.5 \pm 0.1$	$1.5 \pm 0.1$	$4.0 \pm 0.1$

Part No.	Tape	MPQ
8040	Embossed Tape	1000PCS

## Soldering Condition Sproduct

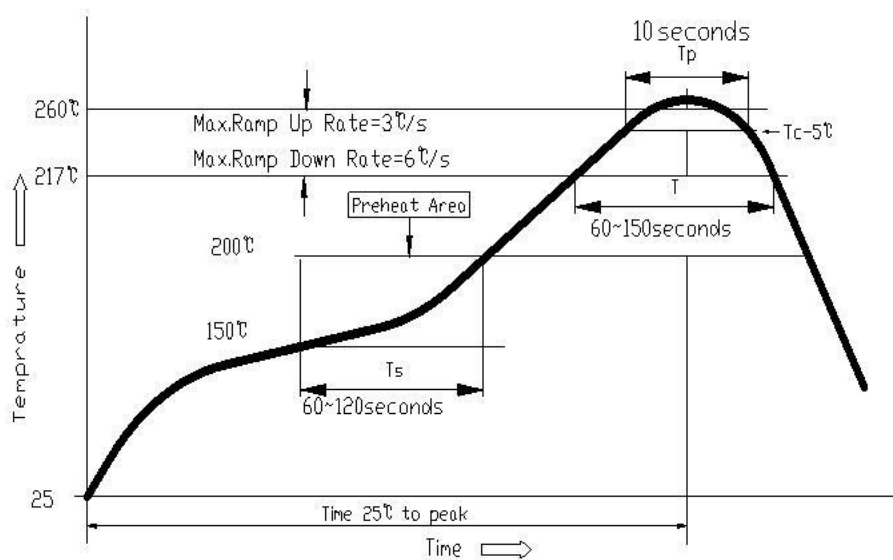
Applicable soldering process to the products is refl.

### 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.

