

APPROVAL SPECIFICATION

PRODUCT NAME:

KOOMAG PN: KMKC60 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

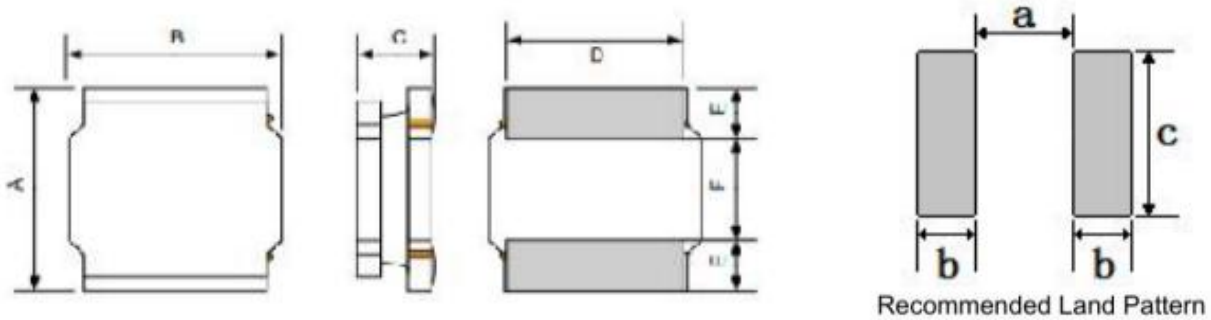
SHENZHEN KOOMAG TECHNOLOGY CO., LTD

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

General Description

This specification applies to the KMKC60 Series of wire wound SMD power inductor.

Appearance & Shape



Recommended Land Pattern

Dimension (Unit:mm)

NO	Series	A	B	C	D	E	F	a Typ.	b Typ.	c Typ.
1	KMKC6028	6.0±0.3	6.0±0.3	2.0 Max.	4.9±0.3	1.55±0.3	2.9±0.2	2.8	1.7	5.7
2	KMKC6045	6.0±0.3	6.0±0.3	4.5 Max.	4.9±0.3	1.55±0.3	2.9±0.3	2.8	1.7	5.7

Part Number

KMKC	6045	-	1R5	
A	B	C	D	

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(ΔT) is 40°C approximately at Irms.
- 4). Saturation DC current: Inductance drop approximately 30% of L0 at Isat.

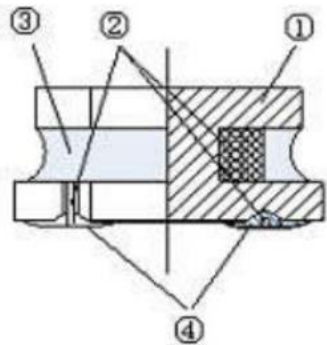
NO	Part Number	Inductance	DC Resistance		I _{sat} (A)		I _{rms} (A)		Marking
		100KHz/1.0V	Max.	Typ.	Max.	Typ.	Max.	Typ.	
	Units	(μH)	Ω	Ω	A	A	A	A	
1	KMKC6028-1R0N	1.0 \pm 30%	0.016	0.012	7.00	8.00	5.00	6.00	1R0
2	KMKC6028-1R5N	1.5 \pm 30%	0.017	0.015	5.50	6.50	4.50	5.50	1R5
3	KMKC6028-2R2M	2.2 \pm 20%	0.026	0.020	5.10	5.50	4.00	4.50	2R2
4	KMKC6028-3R3M	3.3 \pm 20%	0.033	0.028	4.15	4.50	3.50	3.80	3R3
5	KMKC6028-4R7M	4.7 \pm 20%	0.047	0.038	3.00	3.30	3.00	3.40	4R7
6	KMKC6028-5R1M	5.1 \pm 20%	0.056	0.046	3.20	4.20	2.60	3.00	5R1
7	KMKC6028-6R8M	6.8 \pm 20%	0.061	0.051	2.60	3.00	2.40	2.60	6R8
8	KMKC6028-100M	10.0 \pm 20%	0.094	0.069	2.20	2.50	2.00	2.40	100
9	KMKC6028-150M	15.0 \pm 20%	0.163	0.130	1.75	1.90	1.45	1.60	150
10	KMKC6028-220M	22.0 \pm 20%	0.182	0.153	1.45	1.80	1.40	1.60	220
11	KMKC6028-330M	33.0 \pm 20%	0.241	0.220	1.35	1.50	1.22	1.30	330
12	KMKC6028-470M	47.0 \pm 20%	0.410	0.310	1.15	1.20	1.05	1.10	470
13	KMKC6028-680M	68.0 \pm 20%	0.468	0.441	0.80	0.95	0.85	0.95	680
14	KMKC6028-101M	100.0 \pm 20%	0.845	0.664	0.65	0.70	0.70	0.75	101
15									
16									
17									
18									
19									
20									

※Design as Customer's Requested Specifications. (可按顾客的特殊需求设计)

NO	Part Number	Inductance	DC Resistance		I _{ast} (A)		I _{rms} (A)		Marking
		100KHz/1.0V	Max.	Typ.	Max.	Typ.	Max.	Typ.	
	Units	(μ H)	Ω	Ω	A	A	A	A	
1	KMKC6045-1R0N	1.0 \pm 30%	0.014	0.011	9.50	10.00	5.50	6.00	1R0
2	KMKC6045-1R5N	1.5 \pm 30%	0.016	0.013	8.80	9.50	4.95	5.40	1R5
3	KMKC6045-2R2M	2.2 \pm 20%	0.023	0.018	6.75	7.40	4.60	5.00	2R2
4	KMKC6045-3R3M	3.3 \pm 20%	0.027	0.022	5.90	6.20	3.70	4.00	3R3
5	KMKC6045-4R7M	4.7 \pm 20%	0.034	0.027	4.97	5.50	3.30	3.60	4R7
6	KMKC6045-5R6M	5.6 \pm 20%	0.038	0.032	4.15	4.60	3.15	3.40	5R6
7	KMKC6045-6R8M	6.8 \pm 20%	0.040	0.035	3.90	4.30	3.00	3.30	6R8
8	KMKC6045-100M	10.0 \pm 20%	0.062	0.051	3.20	3.50	2.45	2.70	100
9	KMKC6045-150M	15.0 \pm 20%	0.088	0.073	2.50	2.70	2.05	2.20	150
10	KMKC6045-220M	22.0 \pm 20%	0.116	0.095	2.05	2.20	1.80	2.00	220
11	KMKC6045-330M	33.0 \pm 20%	0.178	0.158	1.65	1.80	1.45	1.60	330
12	KMKC6045-470M	47.0 \pm 20%	0.260	0.230	1.40	1.50	1.20	1.30	470
13	KMKC6045-680M	68.0 \pm 20%	0.376	0.340	1.20	1.30	1.00	1.10	680
14	KMKC6045-101M	100.0 \pm 20%	0.563	0.510	0.95	1.00	0.80	0.88	101
15	KMKC6045-151M	150.0 \pm 20%	0.754	0.690	0.80	0.88	0.70	0.77	151
16	KMKC6045-221M	220.0 \pm 20%	1.084	0.900	0.70	0.75	0.55	0.60	221
17	KMKC6045-331M	150.0 \pm 20%	1.300	0.990	0.65	0.70	0.50	0.55	331
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.)



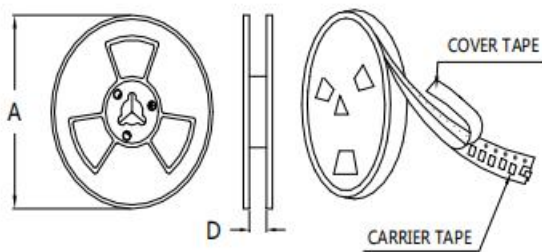
NO	Components	Material
1	Core	Ni-Zn Ferrite
2	Wire	Polyurethane system enameled copper wire
3	Magnetic Glue	Epoxy resin and magnetic powder
4	Plating	AgNiSn or FeNiCu + Sn Alloy

Packaging(unit:mm)

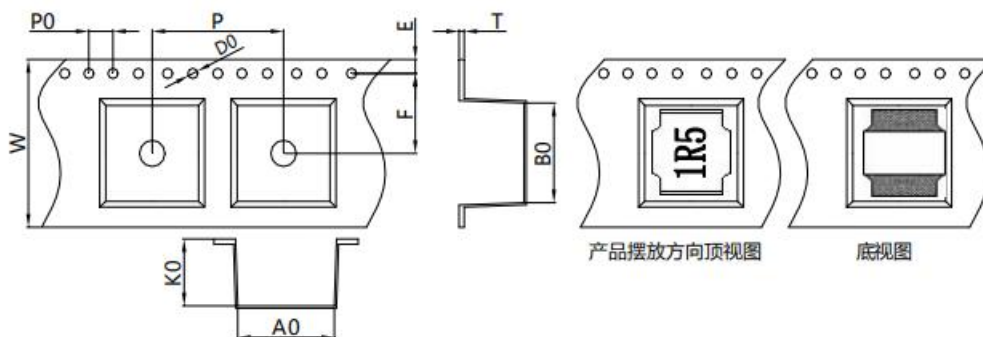
1.Tape Dimensions(Unit:mm)

2.Reel

 13" 盘

 7" 盘


	13" 盘	7" 盘
A	$\Phi 330 \pm 2.0$	$\Phi 178 \pm 2.0$
D	12.5/16.5	



Size	Item	W	A0	B0	K0	P	T	E	F	D0	P0
6028	(mm)	12.0±0.3	6.5±0.15	6.5±0.15	3.0±0.2	8.0±0.3	0.4±0.1	1.75±0.1	5.5±0.1	1.5±0.1	4.0±0.1
6028	(mm)	16.0±0.3	6.5±0.15	6.5±0.15	3.0±0.2	8.0±0.3	0.4±0.1	1.75±0.1	7.5±0.1	1.5±0.1	4.0±0.1
6045	(mm)	12.0±0.3	6.5±0.15	6.5±0.15	4.7±0.2	8.0±0.3	0.4±0.1	1.75±0.1	5.5±0.1	1.5±0.1	4.0±0.1
6045	(mm)	16.0±0.3	6.5±0.15	6.5±0.15	4.7±0.2	8.0±0.3	0.4±0.1	1.75±0.1	7.5±0.1	1.5±0.1	4.0±0.1

Part No.	Tape	MPQ
6028	Embossed Tape	2000PCS
6045	Embossed Tape	1500PCS

Soldering Condition Sproduct

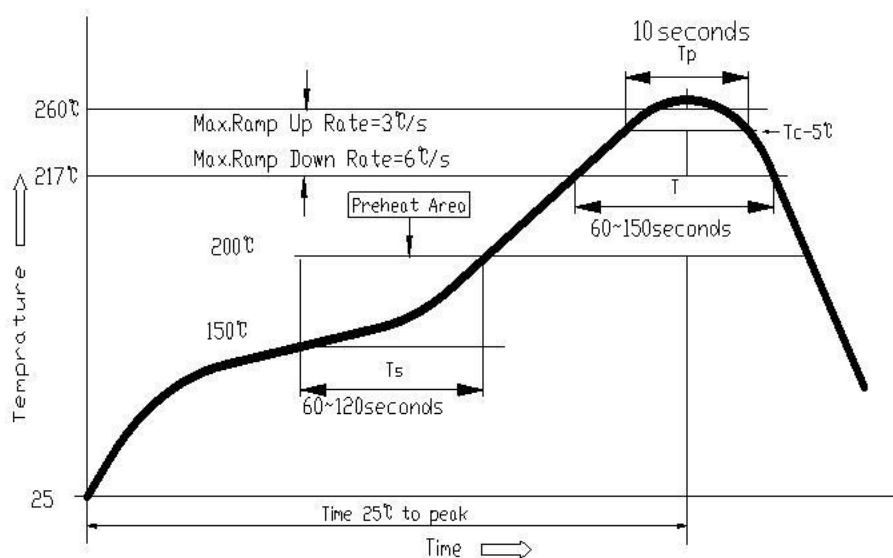
Applicable soldering process to the products is refl.

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.

