APPROVAL SPECIFICATION

PRODUCT NAME:

KOOMAG PN: KMKC2520 Series

CUSTOMER PN:

CUSTOMER RESPONSE

☐ Approval ☐ Approval with the following changes ☐ 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

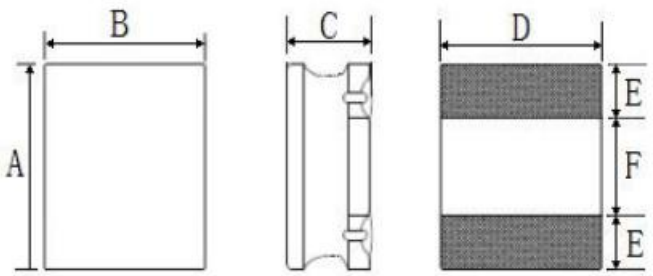
SHENZHEN KOOMAG TECHNOLOGY CO., LTD

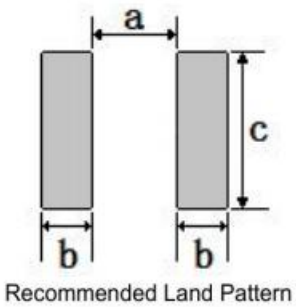
Address: B503, Building B, HuaChuangDa Headquarters Building, Bao'an 49 District, Shenzhen

General Description

This specification applies to the KMKC2520 Series of wire wound SMD power inductor.

Appearance & Shape



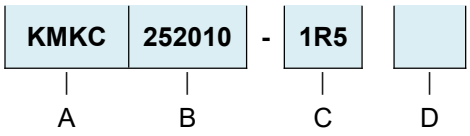


Recommended Land Pattern

Dimension (Unit:mm)

NO	Series	A	B	C	D	E	F	a Typ.	b Typ.	c Typ.
1	KMKC252010	2.5±0.3	2.0±0.3	1.0 Max	2.0±0.2	0.8±0.2	0.8±0.2	0.80	0.85	2.0
2	KMKC252012	2.5±0.3	2.0±0.3	1.2 Max	2.0±0.2	0.8±0.2	0.8±0.2	0.80	0.85	2.0

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℃ ~ +125℃ .

2). Storage temperature range (packaging conditions): -40℃ ~ +85℃ and RH 70% (Max.).

3). Rating DC current: Temperature rise(△T) is 40℃ approximately at Irms.

4). Saturation DC current: Inductance drop approximately 30% of L0 at Isat.

NO	Part Number	Inductance	DC Resistance		Iast(A)		Irms(A)		Marking
		100KHz/1.0V	Max.	Typ.	Max.	Typ.	Max.	Typ.	
	Units	（uH）	Ω	Ω	A	A	A	A	
1	KMKC252010S-R24N	0.24±20%	0.034	0.026	3.60	4.40	2.75	3.00	N/A
2	KMKC252010S-R33N	0.33±20%	0.043	0.033	3.60	4.30	2.45	2.70	N/A
3	KMKC252010S-R47N	0.47±20%	0.044	0.033	2.80	3.20	2.40	2.60	N/A
4	KMKC252010S-R68N	0.68±20%	0.062	0.051	2.75	3.10	2.10	2.35	N/A
5	KMKC252010S-1R0N	1.0±20%	0.080	0.066	2.05	2.50	1.85	2.05	N/A
6	KMKC252010S-1R5N	1.5±20%	0.108	0.085	1.70	2.05	1.55	1.70	N/A
7	KMKC252010S-2R2M	2.2±20%	0.150	0.130	1.50	1.75	1.35	1.50	N/A
8	KMKC252010S-3R3M	3.3±20%	0.228	0.170	1.10	1.35	1.05	1.20	N/A
9	KMKC252010S-4R7M	4.7±20%	0.330	0.280	1.00	1.15	0.90	1.00	N/A
10	KMKC252010S-5R6M	5.6±20%	0.480	0.370	0.90	1.05	0.80	0.90	N/A
11	KMKC252010S-6R8M	6.8±20%	0.480	0.400	0.80	0.95	0.72	0.80	N/A
12	KMKC252010S-8R2M	8.2±20%	0.572	0.463	0.73	0.85	0.69	0.78	N/A
13	KMKC252010S-100M	10±20%	0.600	0.500	0.65	0.75	0.65	0.75	N/A
14	KMKC252010S-120M	12±20%	0.850	0.700	0.58	0.62	0.58	0.62	N/A
15	KMKC252010S-150M	15±20%	1.050	0.820	0.50	0.55	0.45	0.50	N/A
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※Design as Customer's Requested Specifications. (可按顾客的特殊需求设计）

NO	Part Number	Inductance	DC Resistance		Iast(A)		Irms(A)		Marking
		100KHz/1.0V	Max.	Typ.	Max.	Typ.	Max.	Typ.	
	Units	（uH）	Ω	Ω	A	A	A	A	
1	KMKC252012S-R24N	0.24±30%	0.023	0.019	4.10	4.80	4.10	4.50	N/A
2	KMKC252012S-R33N	0.33±30%	0.031	0.026	4.00	4.70	3.35	3.70	N/A
3	KMKC252012S-R47N	0.47±30%	0.036	0.031	3.80	4.50	3.00	3.30	N/A
4	KMKC252012S-R68N	0.68±30%	0.047	0.038	3.00	3.30	2.30	2.50	N/A
5	KMKC252012S-1R0N	1.0±30%	0.060	0.050	2.25	2.50	2.30	2.60	N/A
6	KMKC252012S-1R2N	1.2±30%	0.078	0.065	2.20	2.50	2.00	2.20	N/A
7	KMKC252012S-1R5N	1.5±30%	0.090	0.075	2.00	2.35	1.80	2.00	N/A
8	KMKC252012S-1R8N	1.8±30%	0.108	0.093	1.95	2.20	1.75	1.90	N/A
9	KMKC252012S-2R2M	2.2±20%	0.108	0.093	1.75	1.90	1.75	1.90	N/A
10	KMKC252012S-2R7M	2.7±20%	0.156	0.130	1.30	1.60	1.40	1.50	N/A
11	KMKC252012S-3R3M	3.3±20%	0.156	0.130	1.20	1.35	1.40	1.50	N/A
12	KMKC252012S-4R7M	4.7±20%	0.228	0.190	1.10	1.20	1.10	1.20	N/A
13	KMKC252012S-5R6M	5.6±20%	0.330	0.255	1.00	1.10	1.00	1.15	N/A
14	KMKC252012S-6R8M	6.8±20%	0.360	0.300	0.90	1.10	0.95	1.05	N/A
15	KMKC252012S-100M	10±20%	0.522	0.435	0.70	0.85	0.78	0.86	N/A
16	KMKC252012S-150M	15±20%	1.000	0.700	0.60	0.70	0.50	0.60	N/A
17	KMKC252012S-220M	22±20%	1.290	1.000	0.45	0.55	0.48	0.55	N/A
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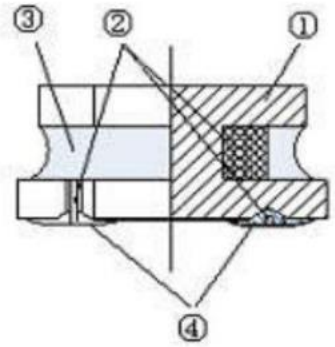
※Design as Customer's Requested Specifications. (可按顾客的特殊需求设计）

Structure (The structure of product.)

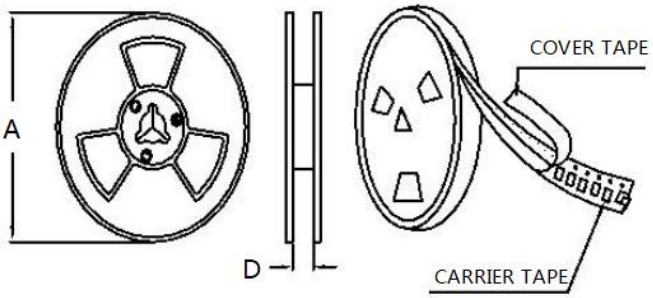


NO	Components	Material
1	Core	Ni-Zn Ferrite
2	Wire	Polyurethane system enameled copper wire
3	Magnetic Glue	Epoxy resin and magnetic powder
4	Plating	AgNiSn or FeNiCu + Sn Alloy

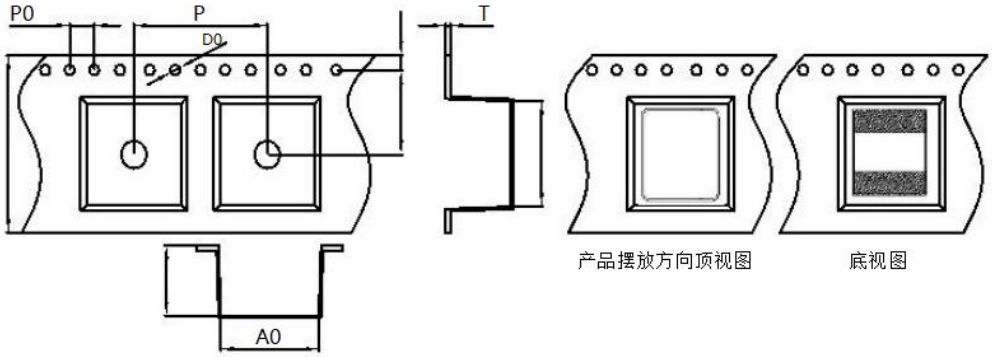
Packaging(unit:mm)

1.Tape Dimensions(Unit:mm)

2.Reel √ 13″ 盘 □ 7″ 盘



	13″ 盘	7″ 盘
A	Φ330±2.0	Φ178±2.0
D	8.5	



Size	Item	W	A0	B0	K0	P	T	E	F	D0	P0
252010	(mm)	8.00±0.3	2.35±0.2	2.65±0.2	1.40±0.1	4.00±0.1	0.25±0.1	1.75±0.1	3.50±0.1	1.50±0.1	4.00±0.2
252012	(mm)	8.00±0.3	2.35±0.2	2.65±0.2	1.40±0.1	4.00±0.1	0.25±0.1	1.75±0.1	3.50±0.1	1.50±0.1	4.00±0.2

Part No.	Tape	MPQ
252010	Embossed Tape	2000PCS
252012	Embossed Tape	2000PCS

Soldering Condition Sproduct

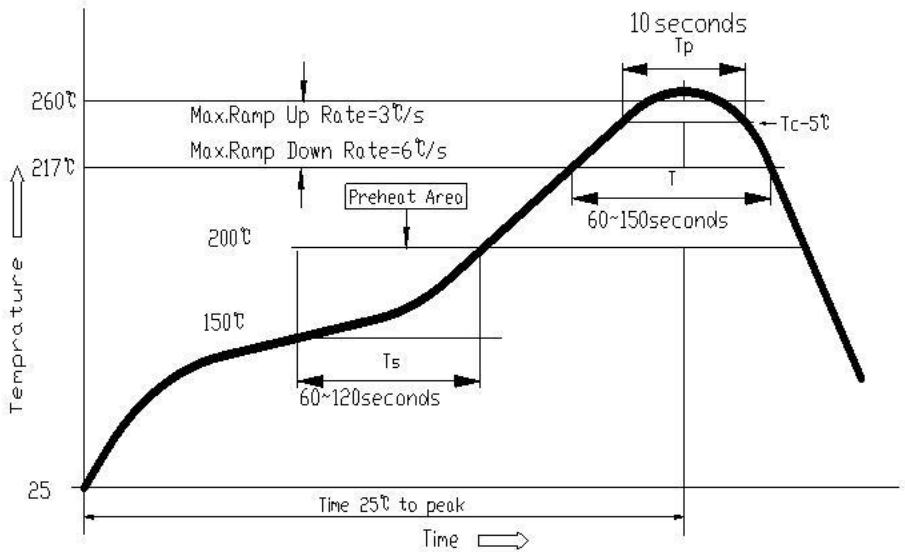
Applicable soldering process to the products is refl.

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 gIron

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:＜3s.