

APPROVAL SPECIFICATION

PRODUCT NAME:

KOOMAG PN:KMKCA2520 Series 合金系列

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

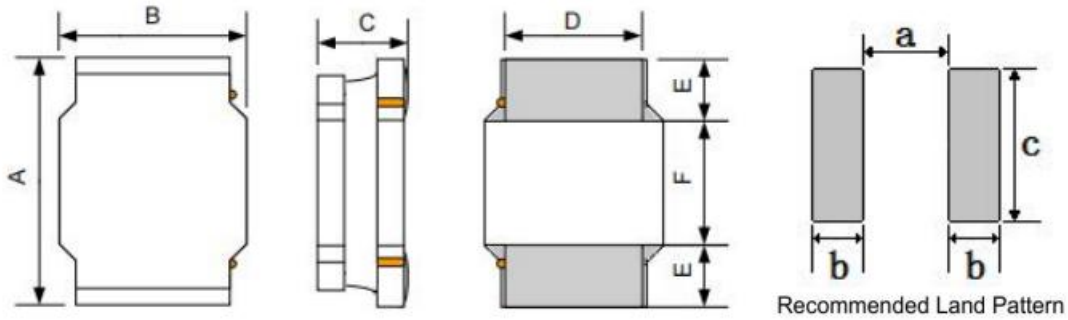
SHENZHEN KOOMAG TECHNOLOGY CO., LTD

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

General Description

This specification applies to the KMKCA2520 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	KMKCA252010	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	KMKCA252012	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

KMKC	A	252010	-	1R5	
A	B	C		D	E

A:Series name (产品品名)

B:Core Type (A表示合金磁芯)

C:Dimensions (产品尺寸)

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

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

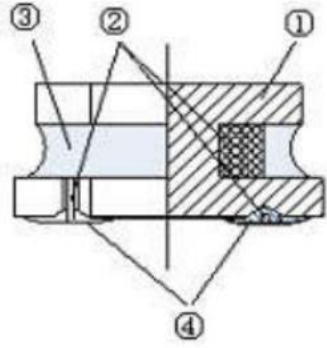
NO	Part Number	Inductance	DC Resistance		Ist(A)		Irms(A)		Marking
		100KHz/1.0V	Max.	Typ.	Max.	Typ.	Max.	Typ.	
	Units	(μH)	Ω	Ω	A	A	A	A	
1	KMKCA252010S-R24N	0.24 \pm 30%	0.033	0.025	6.10	7.10	3.70	4.50	N/A
2	KMKCA252010S-R33N	0.33 \pm 30%	0.039	0.033	4.80	5.50	3.50	4.05	N/A
3	KMKCA252010S-R47N	0.47 \pm 30%	0.045	0.040	4.40	5.20	3.20	3.60	N/A
4	KMKCA252010S-R68N	0.68 \pm 30%	0.059	0.049	3.20	3.60	2.75	3.20	N/A
5	KMKCA252010S-1R0N	1.0 \pm 30%	0.085	0.071	3.10	3.50	2.20	2.50	N/A
6	KMKCA252010S-1R5N	1.5 \pm 30%	0.106	0.090	2.60	3.00	2.00	2.30	N/A
7	KMKCA252010S-2R2M	2.2 \pm 20%	0.155	0.129	1.90	2.20	1.50	1.80	N/A
8	KMKCA252010S-3R3M	3.3 \pm 20%	0.235	0.196	1.60	1.80	1.20	1.40	N/A
9	KMKCA252010S-4R7M	4.7 \pm 20%	0.290	0.255	1.30	1.50	1.00	1.10	N/A
10	KMKCA252010S-6R8M	6.8 \pm 20%	0.480	0.380	1.00	1.15	0.95	1.00	N/A
11	KMKCA252010S-100M	10 \pm 20%	0.740	0.630	0.90	1.00	0.65	0.75	N/A
12									
13									
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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		I _{last} (A)		I _{rms} (A)		Marking
		100KHz/1.0V	Max.	Typ.	Max.	Typ.	Max.	Typ.	
	Units	(μ H)	Ω	Ω	A	A	A	A	
1	KMKCA252012S-R24N	0.24 \pm 30%	0.023	0.019	6.50	7.80	4.05	4.70	N/A
2	KMKCA252012S-R33N	0.33 \pm 30%	0.028	0.023	5.35	6.30	3.70	4.30	N/A
3	KMKCA252012S-R47N	0.47 \pm 30%	0.035	0.029	4.90	5.60	3.45	4.00	N/A
4	KMKCA252012S-R68N	0.68 \pm 30%	0.045	0.039	3.80	4.50	3.10	3.60	N/A
5	KMKCA252012S-1R0N	1.0 \pm 30%	0.054	0.048	3.60	4.20	3.00	3.40	N/A
6	KMKCA252012S-1R5N	1.5 \pm 30%	0.078	0.060	2.90	3.50	2.40	2.80	N/A
7	KMKCA252012S-2R2M	2.2 \pm 20%	0.120	0.100	2.60	3.00	1.90	2.15	N/A
8	KMKCA252012S-3R3M	3.3 \pm 20%	0.215	0.175	1.70	2.10	1.50	1.80	N/A
9	KMKCA252012S-4R7M	4.7 \pm 20%	0.260	0.225	1.60	1.90	1.25	1.45	N/A
10	KMKCA252012S-6R8M	6.8 \pm 20%	0.366	0.305	1.20	1.40	0.95	1.10	N/A
11	KMKCA252012S-8R2M	8.2 \pm 21%	0.460	0.396	1.15	1.36	0.88	1.06	N/A
12	KMKCA252012S-100M	10 \pm 20%	0.480	0.435	1.10	1.35	0.85	1.00	N/A
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※Design as Customer's Requested Specifications. (可按顾客的特殊需求设计)

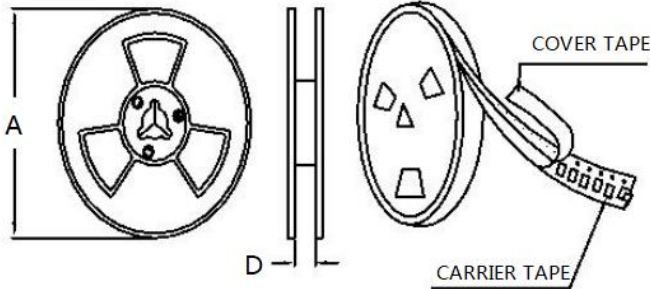
Structure (The structure of product.)



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)

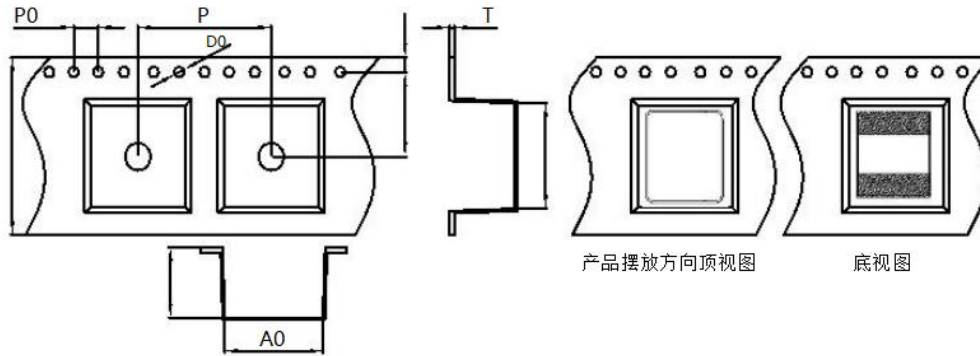


2.Reel

 13" 盘

 7" 盘

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



Size	Item	W	A0	B0	K0	P	T	E	F	D0	P0
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

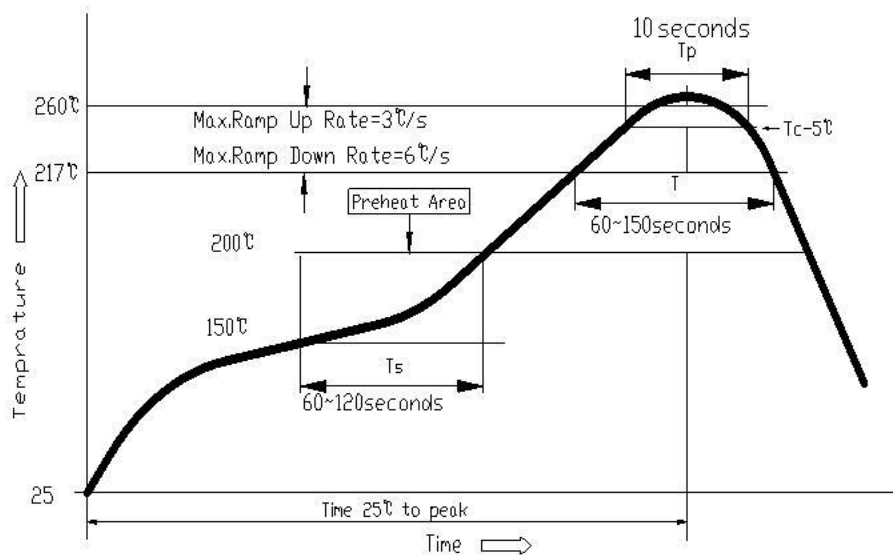
Applicable soldering process to the products is refl.

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 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.

