

# APPROVAL SPECIFICATION

**PRODUCT NAME:** \_\_\_\_\_

**KOOMAG PN:** KMTC0650 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

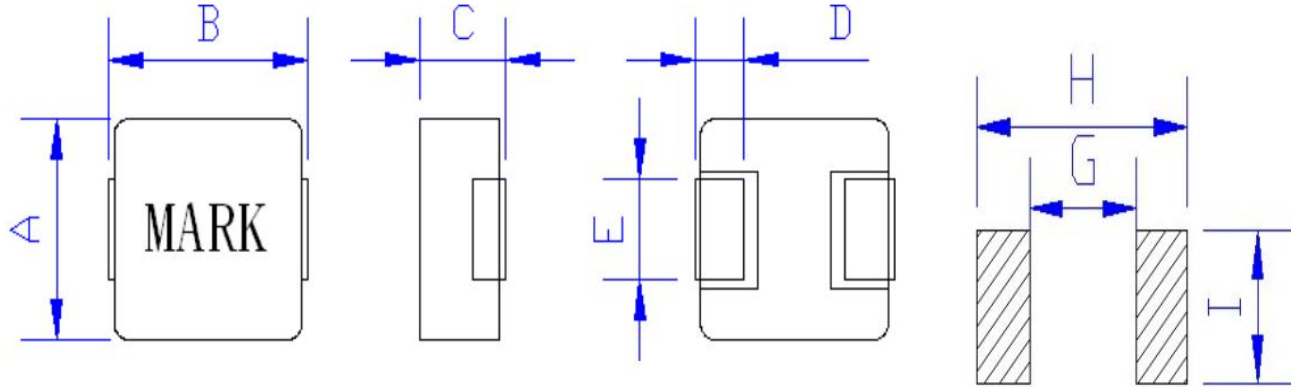
SHENZHEN KOOMAG TECHNOLOGY CO., LTD

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

## General Description

This specification applies to the KMTC0650 Series of wire wound SMD power inductor.

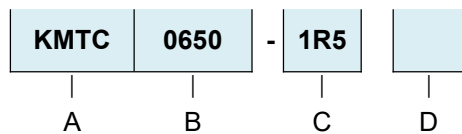
## Appearance & Shape



## Dimension (Unit:mm)

NO	Series	A	B	C	D	E	G	H	I
1	KMTC0650	6.6 ±0.3	7.1±0.5	5.0 Max	1.6±0.5	3.0±0.3	2.9 Ref.	7.8 Ref.	3.5 Ref.

## Part Number



A:Series name (产品品名)

B:Dimensions (产品尺寸)

C:Inductance value (电感值) 1R5: 1.5μH 220: 22μH

D:Tolerance (误差值) K: ±10%; M: ±20%; N: ±30%

## Electrical Characteristics

Please refer to Item 5.

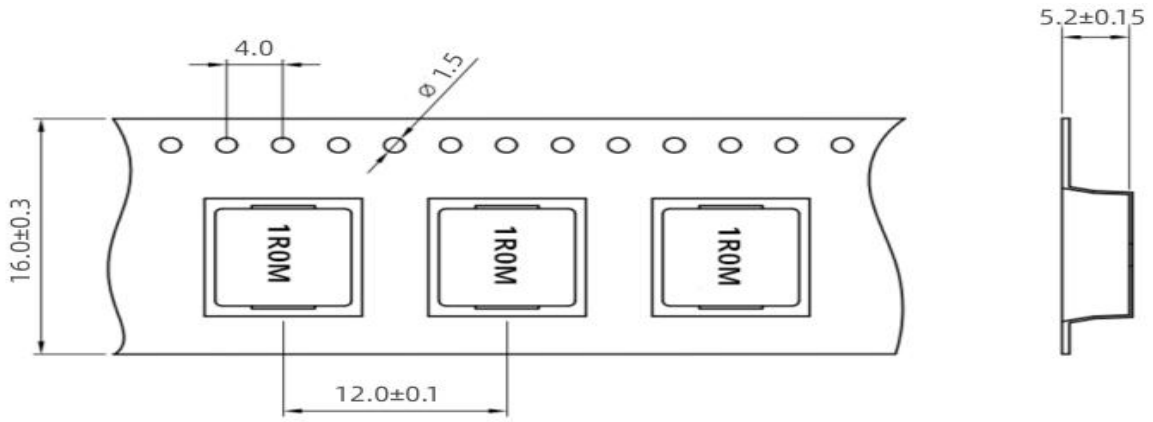
- 1). Operating temperature range (individual chip without packing):  $-40^{\circ}\text{C} \sim +125^{\circ}\text{C}$  .
- 2). Storage temperature range (packaging conditions):  $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$  and RH 70% (Max.).
- 3). Rating DC current: Temperature rise( $\Delta T$ ) 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		Saturation Current	Temp.Rise current	Marking
		100KHz/1.0V	Max.	Typ.	Typ.	Typ.	
	Units	( $\mu\text{H}$ )	m $\Omega$	m $\Omega$	A	A	
1	KMTC0650-1R0M	1.00 $\pm$ 20%	8.5	5.5	14.0	9.0	1R0
2	KMTC0650-1R5M	1.50 $\pm$ 20%	10	7.2	14.0	9.0	1R5
3	KMTC0650-2R2M	2.20 $\pm$ 20%	14	10	10.0	8.0	2R2
4	KMTC0650-3R3M	3.30 $\pm$ 20%	18	13.8	10.0	7.0	3R3
5	KMTC0650-4R7M	4.70 $\pm$ 20%	23	18.5	9.0	6.0	4R7
6	KMTC0650-6R8M	6.80 $\pm$ 20%	33	27	8.0	5.0	6R8
7	KMTC0650-100M	10.00 $\pm$ 20%	60	45	7.0	4.0	100
8	KMTC0650-150M	15.00 $\pm$ 20%	90	60	5.0	3.5	150
9	KMTC0650-220M	22.00 $\pm$ 20%	130	115	4.0	3.0	220
10	KMTC0650-330M	33.00 $\pm$ 20%	175	154	3.5	2.0	330
11	KMTC0650-470M	47.00 $\pm$ 20%	255	230	3.0	1.5	470
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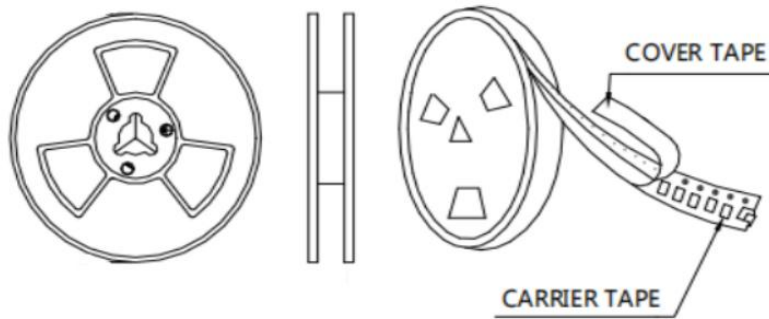
※Design as Customer's Requested Specifications. (可按顾客的特殊需求设计)

## Packaging(unit:mm)

### 1.Tape Dimensions(Unit:mm)



### 2.Reel



Part No.	Tape	MPQ
KMTC0650	Embossed Tape	1000PCS

## Soldering Condition Sproduct

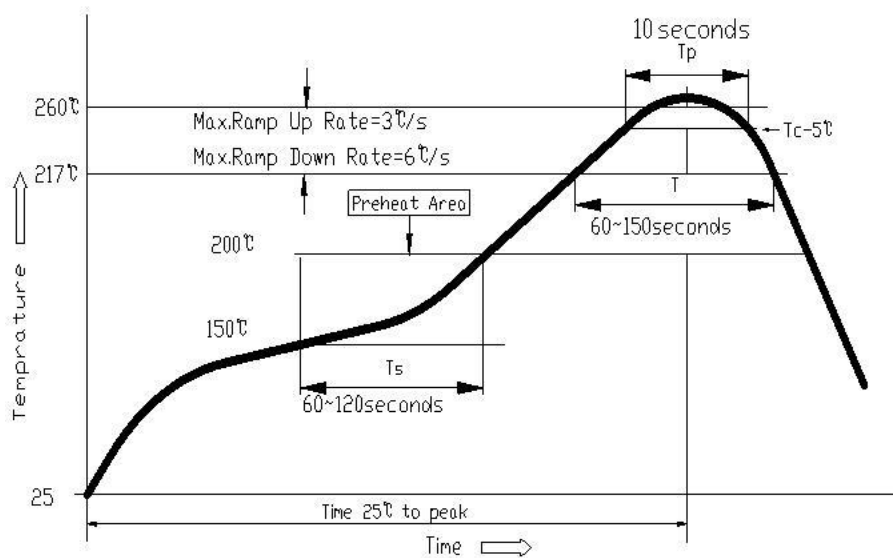
Applicable soldering process to the products is refl.

### 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.

