Specification Sheet for Approved

Customer Name:	
Customer Part No.:	
Ceaiya Part No:	CMPI0624 Series
Spec No:	L0624

【For Customer Approval Only】

If you Approval, Please Stamp

【RoHS Compliant Parts】

Approved By	Checked By	Prepared By
李庆辉	苏高峰	劳水花

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【Version of Changed Record】

Rev.	Effective Date	Changed Contents	Change Reasons	Approved By
A0	2024-05-23	New release	/	Li qing hui

1. Scope

This specification applies to the CMPI0624 Series of wire wound SMD power inductor.

2. Product Description and Identification (Part Number)

1) Description:

CMPI0624 series of Wire wound SMD power inductor.

2) Product Identification (Part Number)

CMPI	0624	-	R68	M
①	②		③	④

① Product Series

② ChokeSize

③ InitialInductance(L@ 0A):1R0=1.0μH

④ InductanceTolerance:M=±20%

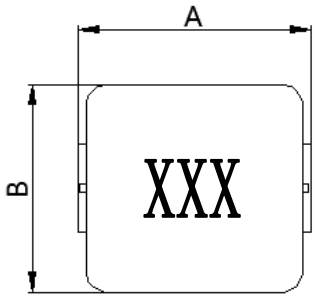
3. Electrical Characteristics

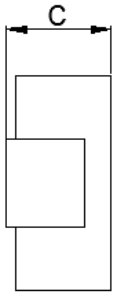
1） Operating temperature range (individual chip without packing): -40℃ ~ +125℃（Including Self-heating）.

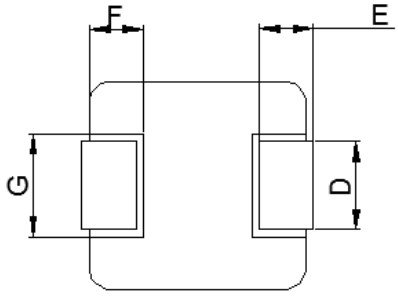
2） Storage temperature range (On PCB): -40℃ ~ +125℃

4. Shape and Dimensions (Unit:mm)

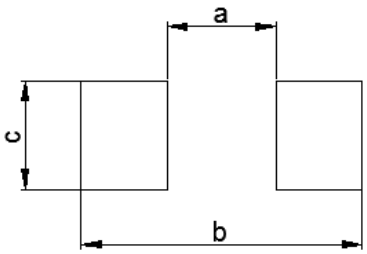
Mechanical Parameters







Recommended PCB Layout



A	B	C	D	E	F	G	a	b	c
7.10	6.60	2.5	3.00	1.60	2.00	3.60	3.70	8.40	3.50
±0.30	±0.20	Max	±0.30	±0.30	Typ.	Typ.	Typ.	Typ.	Typ.

Notes:

1. Marking :Ink Marking
2. Stamping XXX :inductor
3. Dimensions of recommended PCB layout are reference only.
4. Do not route traces or place vias underneath the inductor. Proper layout is required.

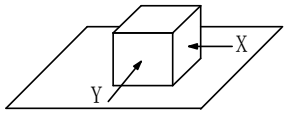
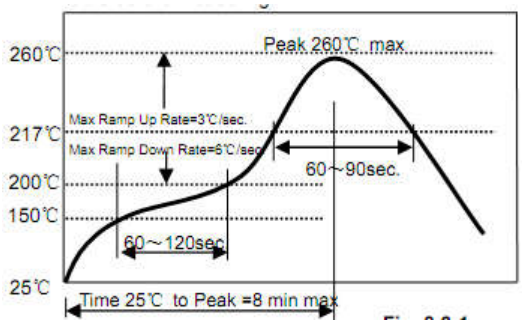
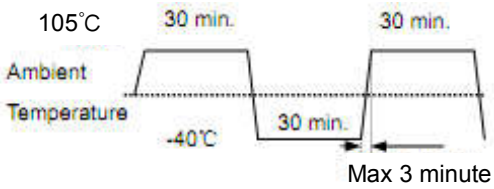
5. Electrical Characteristics

Part Number	L0(uH) ±20%	DCR(mΩ) @25℃		Isat(Amp) Typ.	Irms(Amp) Typ.
		Max.	Typ.		
CMPI0624-R22M	0.22	3.0	2.5	34.0	21.0
CMPI0624-R33M	0.33	4.1	3.5	24.5	18.0
CMPI0624-R47M	0.47	5.1	4.5	22.0	15.0
CMPI0624-R56M	0.56	6.5	5.5	17.0	13.0
CMPI0624-R68M	0.68	7.5	6.5	16.0	12.0
CMPI0624-1R0M	1.0	15.0	13.5	16.0	9.0
CMPI0624-1R5M	1.5	20	17	13.5	9.0
CMPI0624--2R2M	2.2	28	23	10.0	7.0
CMPI0624-3R3M	3.3	39	32	8.5	5.5
CMPI0624-4R7M	4.7	55	45	7.5	5.0
CMPI0624-5R6M	5.6	65	55	6.8	4.6
CMPI0624-6R8M	6.8	70	62	6.0	4.0
CMPI0624-100M	10	101	92	4.0	3.1
CMPI0624-150M	15	160	145	3.3	2.5

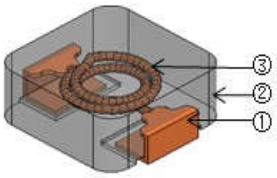
Notes:

1. InitialInductance(L_0)TestParameters:100KHz,1V,Idc=0.0A,+25℃
2. All test data is referenced to 25°C ambient;
3. Rated current: Isat or Irms, whichever is smaller;
4. Isat(A):DC current at which the inductance drops approximate 30% from its value without current;
5. Irms(A):DC current that causes the temperature rise (△T =40° C) from 25° C ambient.

6. Reliability Test

Items	Requirements	Test Methods and Remarks
6.1 Terminal Strength	No removal or split of the termination or other defects shall occur.  Fig.6.1-1	1) Solder the inductor to the testing jig (glass epoxy board shown in Fing.6.1-1) using eutectic solder. Then apply a force in the direction of the arrow. 2) 10N force. 3) Keep time: 5±2s
6.2 High Temperature	1. No visible mechanical damage. 2. Inductance change: Within ±10%	1) Storage Temperature :125+/-5℃ 2) Duration : 96 ±4 Hours 3) Recovery : then measured at room ambient temperature after placing 24 hours.
6.3 Low Temperature	1. No visible mechanical damage 2. Inductance change: Within ±10%	1) Temperature and time: -40±5℃ 2) Duration: 96±4 hours 3) Recovery : then measured at room ambient temperature after placing 24 hours.
6.4 Vibration test	1. No visible mechanical damage. 2. Inductance change: Within ±10%	1) Frequency range:10Hz~55Hz~10Hz 2) Amplitude:1.5mm p-p 3) Direction:X,Y,Z 4) Time:1 minute/cycle,2hours per axis
6.5 High Temperature Storage Tested	1. No visible mechanical damage. 2. Inductance change: Within ±10%	1)Storage Temperature :60+/-2℃ 2) Relative Humidity :90-95% 3) Duration : 96 ±4 Hours 4)Recovery : then measured at room ambient temperature after placing 24 hours.
6.6 Resistance to Soldering Heat	1. No visible mechanical damage. 2. Inductance change: Within ±10%  Fig.6.6-1	1) Re-flowing Profile: Please refer to Fig.6.6-1 2) Test board thickness: 1.0mm 3) Test board material: glass epoxy resin 4) The chip shall be stabilized at normal condition for 1~2 hours before measuring
6.7 Thermal Shock	1. No visible mechanical damage. 2. Inductance change: Within ±10%  Fig.6.7-1	1) Temperature and time: -40±3℃ for 30±3 min→105℃ for 30±3min, please refer to Fig.6.7-1. 2) Transforming interval: Max,3 minutes 3) Tested cycle: 100 cycles 4) The chip shall be stabilized at normal condition for 1~2 hours before measuring

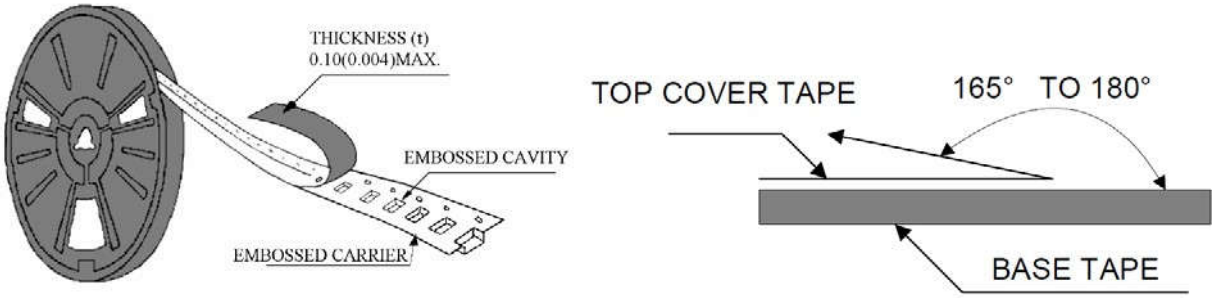
7. MATERIALLIST



NO.	Part Name	Material
1	Electrode	Cu+Snplating
2	Core	Metalcompositecore
3	Coil	Copperwire,220℃

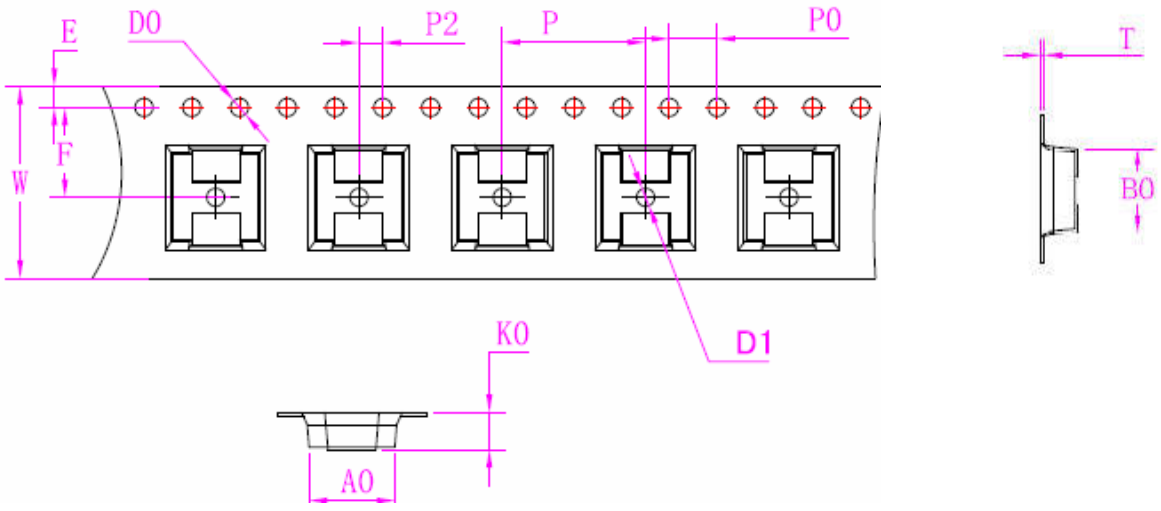
8. PACKAGE INFORMATION-mm

Peel-off Force



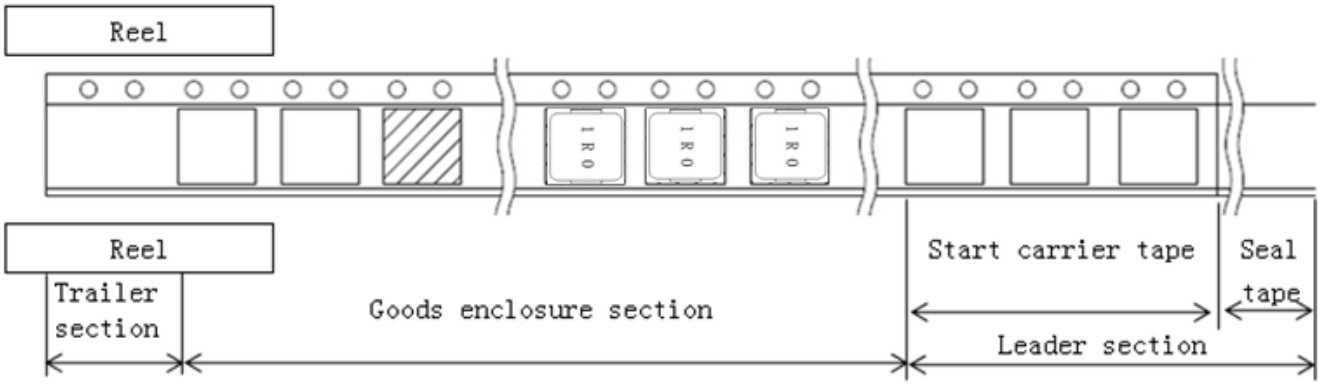
The force for peeling off cover tape is 30 to 100 grams in to arrow direction.

8.1TapePackagingDimensions



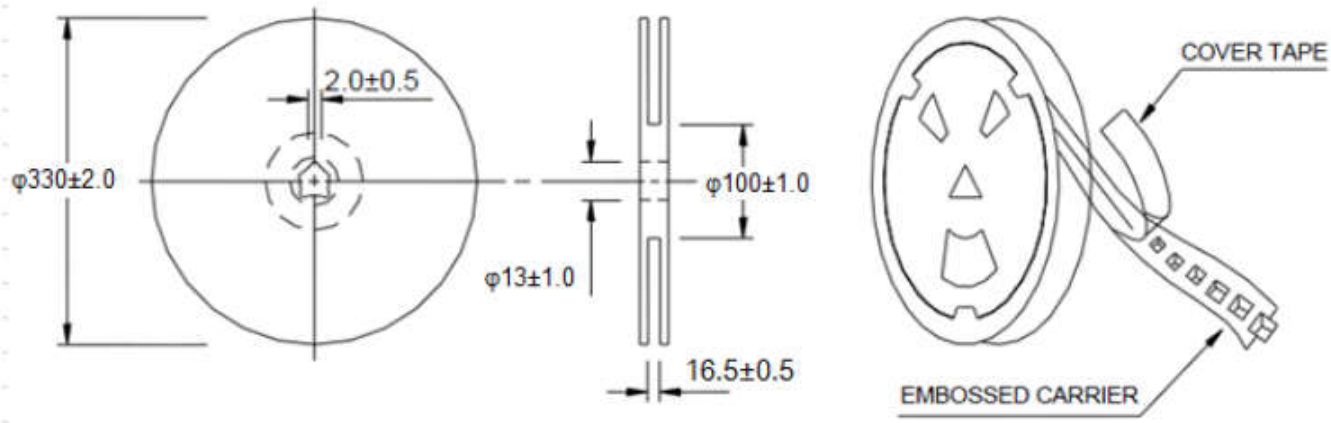
Item	W	A0	B0	K0	P	F	E	D0	D1	P0	P2	T
DIM	16.0	6.9	7.6	2.6	12.0	7.5	1.75	1.5	1.50	4.0	2.0	0.35
Tole	±0.3	Typ.	Typ.	Typ.	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	Typ.

8.2 Tapingdimensionandtapedirection,Leader,Trailer,sectiondimension



Leadersection	Min.400mm
Carriertapestartsize	Min.150mm
Trailersectionsize	Min.150mm

8.3 ReelDimensions



8.4 TapingQuantity

1500pieces/Reel,

8.5 Carton

Pizza packaging: 3Reel/Pizza Box

External Packaging:3Boxes/Carton

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