

Specification Sheet for Approved

Customer Name:	
Customer Part No.:	
Ceaiya Part No:	CCM5025 Series
Spec No:	L143

【For Customer Approval Only】

If you Approval, Please Stamp

【RoHS Compliant Parts】

Approved By	Checked By	Prepared By
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【Version of Changed Record】				
Rev.	Effective Date	Changed Contents	Change Reasons	Approved By
A0	2024-06-11	New release	/	Li qing hui

Specification Sheet for SMD Power Inductor

1. Scope

This specification applies to the CCM5025 Series of wire wound SMD Common Mode Filter.

2. Product Description and Identification (Part Number)

1) Description:

CCM5025 series of wire wound SMD Common Mode Filter.

2) Product Identification (Part Number)

<u>CCM</u>	<u>5025</u>	-	<u>101</u>	<u>I</u>
(1)	(2)		(3)	(4)

(1) Chip Common Mode Choke Coil

(2) Dimension(L×W)

(3) Impedance (Typ. at 100MHz)

(4) Packaging Code K: Taping (Φ 330mm/reel)

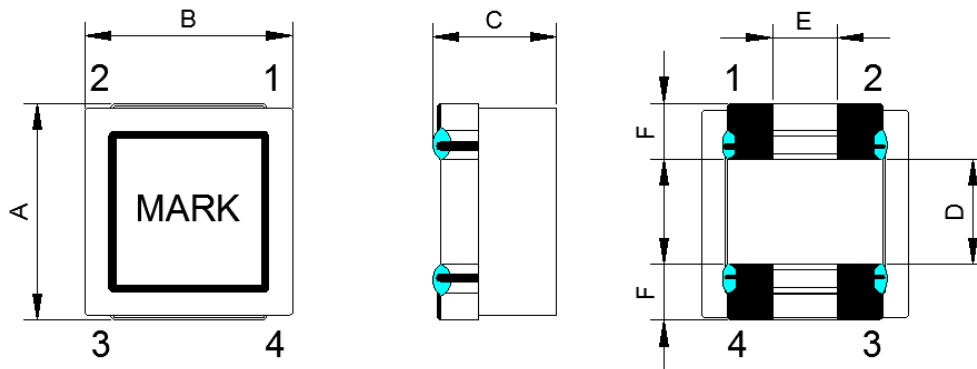
3. Electrical Characteristics

Please refer to Item 5.

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

2) Storage temperature range (packaging conditions): -10℃ ~ +40℃ and RH 70% (Max.).

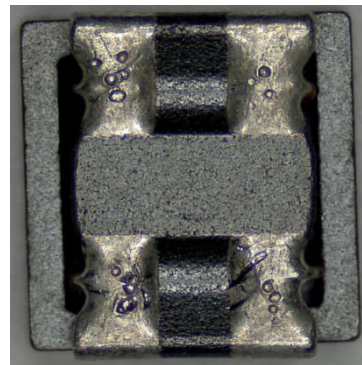
4. Shape and Dimensions (Unit:mm)



产品需喷码印字白色,“ MARK” 表示阻抗。

A	B	C	D	E	F
5.0±0.3	5.0±0.3	2.5±0.2	2.0Typ.	1.2 Typ.	1.5 Typ.

实物照片:



Specification Sheet for SMD Power Inductor

3. Electrical Characteristics

Part No.	Impedance (Ω)		RDC(mΩ) Max[1 line]	Rated Current (A) Max	IR(MΩ) Min	Rated Voltage (V) Max	Marking
	@100 MHz						
	Min.	Typ.					
CCM5025-101T	60	100	13	6.0	10	100	101
CCM5025-251T	180	250	20	5.0	10	50	251
CCM5025-501T	300	500	27	4.0	10	50	501
CCM5025-102T	600	1000	34	2.0	10	50	102
CCM5025-142T	840	1400	56	1.5	10	50	142
CCM5025-152T	840	1400	56	1.5	10	50	152

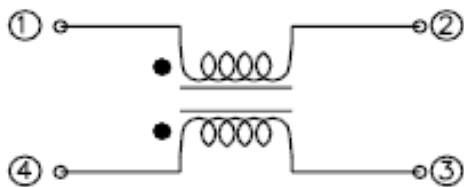
※ Measurement Equipment:

Common mode impedance $z(\Omega)$: 4991A

DC resistance : HIOKI3540

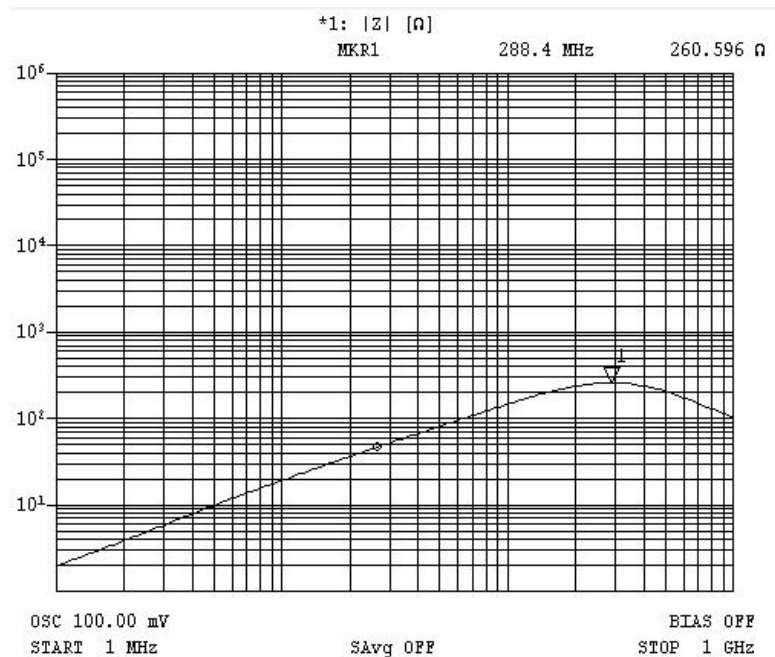
Insulation resistance: Chroma 19053

6. Schematic Diagram



7. TYPICAL ELECTRICAL CHARACTERISTICS

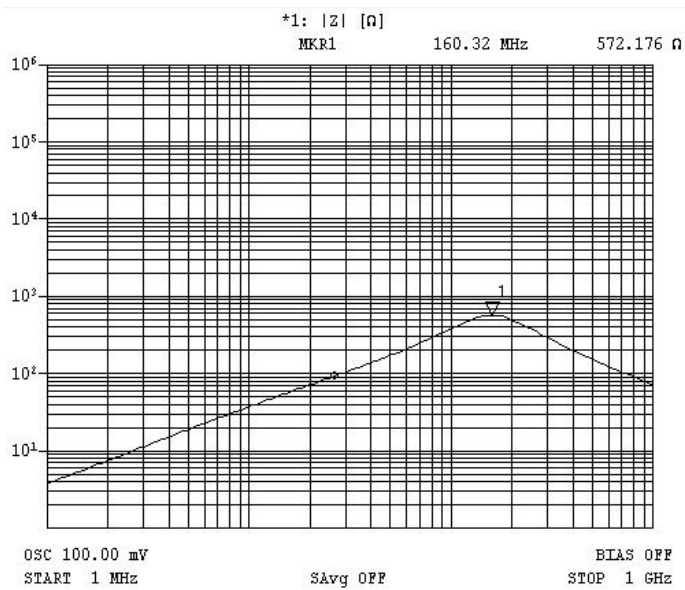
CCM5025-101T



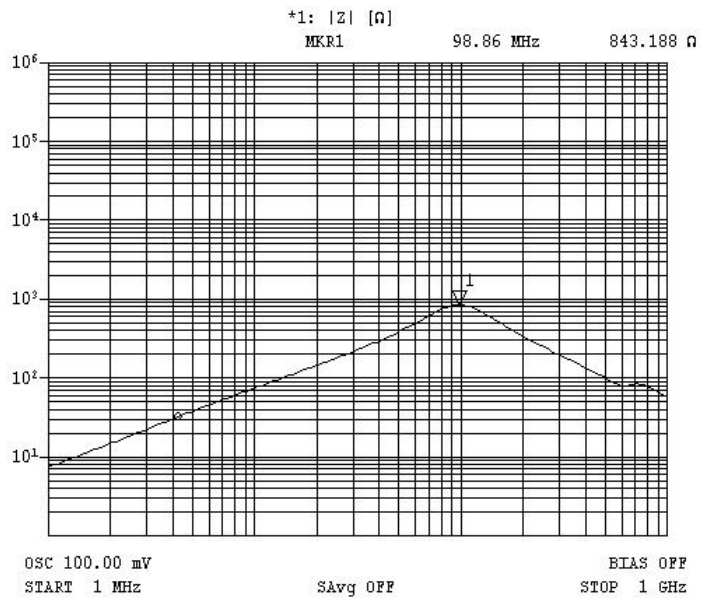
Specification Sheet for SMD Power Inductor

7. TYPICAL ELECTRICAL CHARACTERISTICS

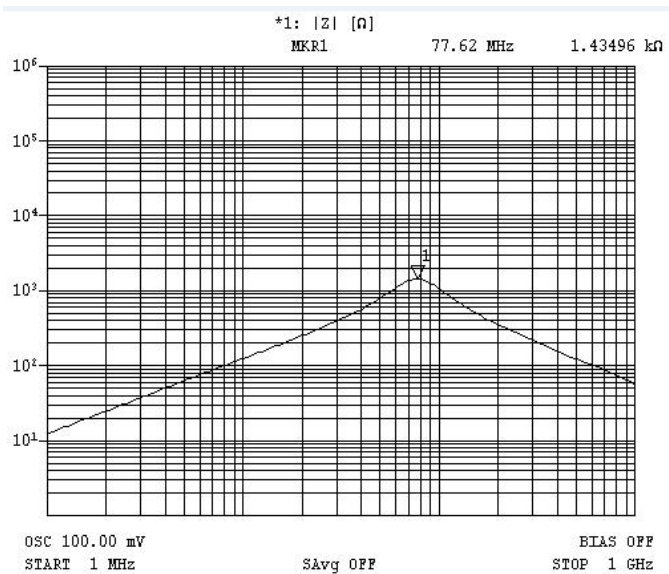
CCM5025-251T



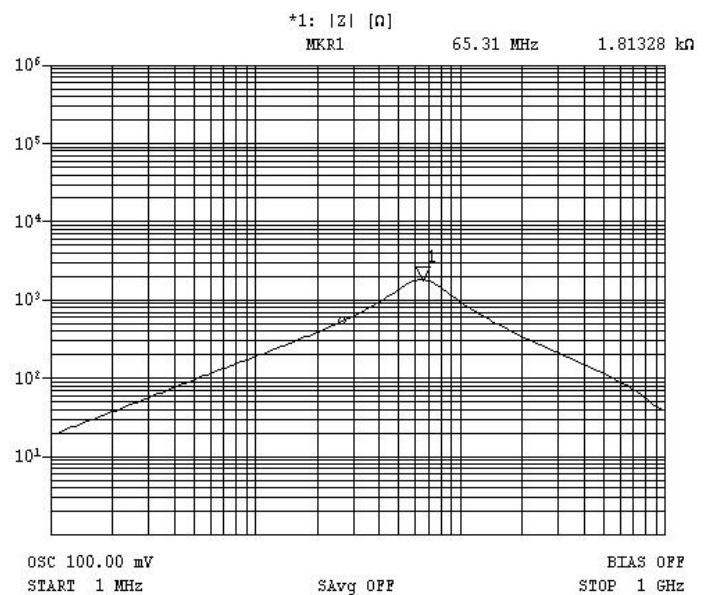
CCM5025-501T



CCM5025-102T

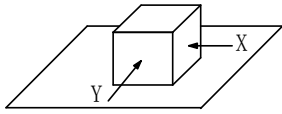
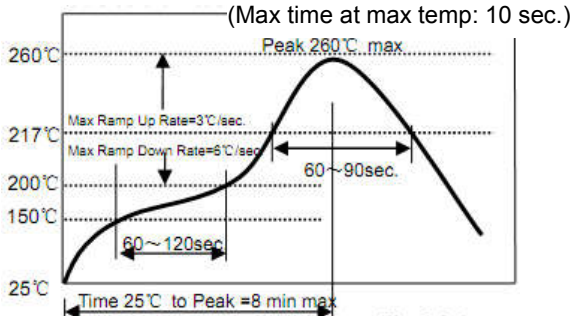
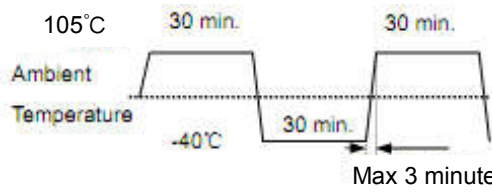


CCM5025-142T&152T



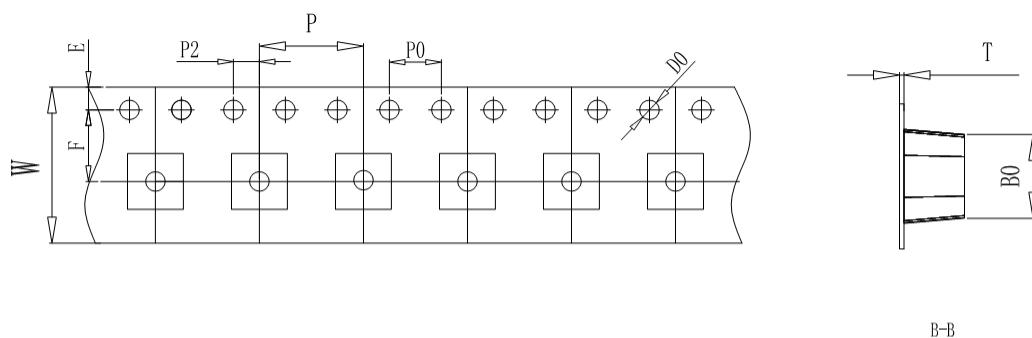
Specification Sheet for SMD Power Inductor

8. Reliability Test

Items	Requirements	Test Methods and Remarks
8.1 Terminal Strength	No removal or split of the termination or other defects shall occur.  Fig.8.1-1	1) Solder the inductor to the testing jig (glass epoxy board shown in Fig.8.1-1) using eutectic solder. Then apply a force in the direction of the arrow. 2) 10N force. 3) Keep time: 5±2s
8.2 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.
8.3 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.
8.4 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
8.5 High Temperature Storage Tested	1. No visible mechanical damage. 2. Inductance change: Within ±10%	1)Storage Temperature :60±2℃ 2) Relative Humidity :90-95% RH 3) Duration : 96 ±4 Hours 4)Recovery : then measured at room ambient temperature after placing 24 hours.
8.6 Resistance to Soldering Heat	1. No visible mechanical damage. 2. Inductance change: Within ±10%  Fig.8.6-1	1) Re-flowing Profile: Please refer to Fig.8.6-1 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
8.7 Thermal Shock	1. No visible mechanical damage. 2. Inductance change: Within ±10%  Fig.8.7-1	1) Temperature and time: -40±3℃ for 30±3 min→105℃ for 30±3min, please refer to Fig.8.7-1. 2) Transforming interval: Max,3 minute 3) Tested cycle: 100 cycles 4) The chip shall be stabilized at normal condition for 1~2 hours before measuring

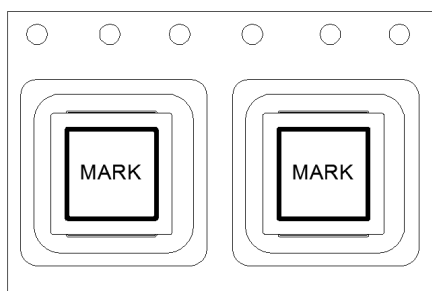
9. Packaging and Marking:

9.1 Appearance and Dimensions

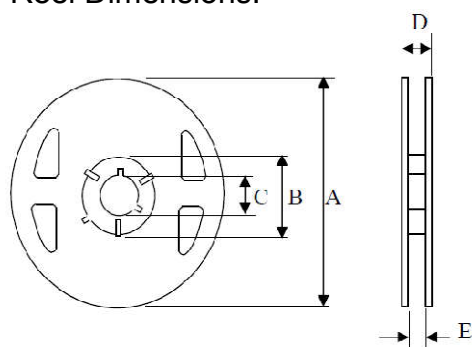


ITEM	W	A0	B1	K0	P	F	E	D0	P0	P2	T
DIM	12.00	5.35	5.35	2.8	8.00	5.50	1.75	1.50	4.00	2.00	0.35
TOLE	±0.3	±0.1	±0.1	±0.1	±0.1	±0.15	±0.1	+0.1	±0.1	±0.1	±0.05

9.2 .Taping Dimensions:

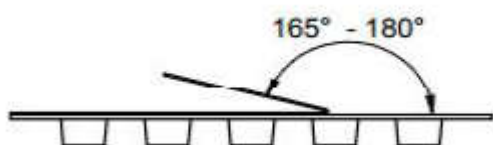


9.3 Reel Dimensions:



Type	12mm
A	330
B	60±0.8
C	13±0.4
D	16
E	12.5

9.4 Pull Strength of Plastic Tape



Tape width	Distance	Pull-of force
12 mm	8 mm	10~120g

9.5 Packaging Quantity:

2.5KPCS/ Reel (13 寸盘)

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