

PRODUCT SPECIFICATION

SPEC. NO: C-5025-01

DATE: Dec.7,2025

CUSTOMER'S PRODUCT NAME:

EMTEK PRODUCT NAME:

BCMC505025-SERIES

THIS SPECIFICATION IS:

- ☐ FULLY ACCEPTED
- ☐ DENIED
- ☐ ACCEPTED UNDER THE FOLLOWING CONDITIONS



SIGNATURE: _____ DATE: _____

NAME(PRINT): _____

TITLE: _____

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 **EMTEK CO., LTD.**

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Hsinchu Hsien,Taiwan,R.O.C
TEL: 03-5894-433
FAX: 03-5894-523

PRODUCT SPECIFICATION

SPEC. NO.

C-2025-02

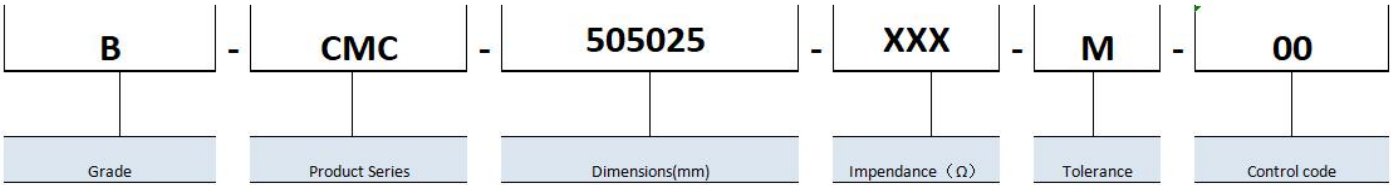
1. Features

- Common-mode Interference Suppression: At 100MHz test frequency, provides multiple typical impedance options (100Ω ~1400Ω), efficiently filters common-mode electromagnetic interference (EMI) in circuits, and meets electromagnetic compatibility requirements.
- Ential Signal Transmission Compatibility: Supports differential mode operation, ensures the stability and integrity of differential signal transmission, and does not affect the normal transmission of useful signals.
- Circuit Insulation Protection: Minimum insulation resistance $\geq 10\text{M}\Omega$, effectively isolates clutter signals, reduces leakage risk, and improves circuit operation reliability.
- Rated Current Carrying: Rated current ranges from 1.5A to 6.0A ($\Delta T \leq 40^{\circ}\text{C}$), adapts to circuits with different power requirements, and stably carries operating current within the rated range.

2. Application

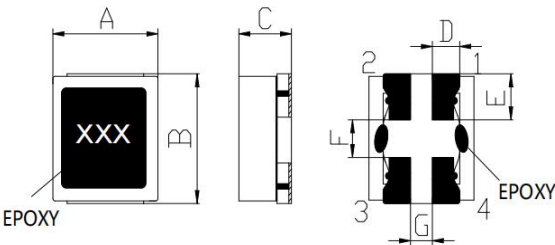
- Compatible with power circuits and signal interfaces of consumer electronics including mobile phones and laptops.
- Applicable to control circuits and communication modules of smart home appliances.
- Portable Instrumentation.
- Suitable for signal transmission links of industrial equipment.

3. Part numbering



4. Appearance and Dimensions

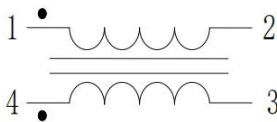
EXTERNAL DIMENSIONS UNIT: mm



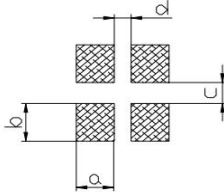
Marking : 白色印字XXX

A	B	C	D	E	F	G
4.80±0.3	5.00±0.3	2.50Max	1.25±0.3	1.70±0.3	1.60±0.3	1.00±0.3

ELECTRICAL SCHEMATIC



PAD LAYOUT UNIT: mm



a	b	c	d
1.6	2.4	1.2	0.8

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5. Rating

NOTE:

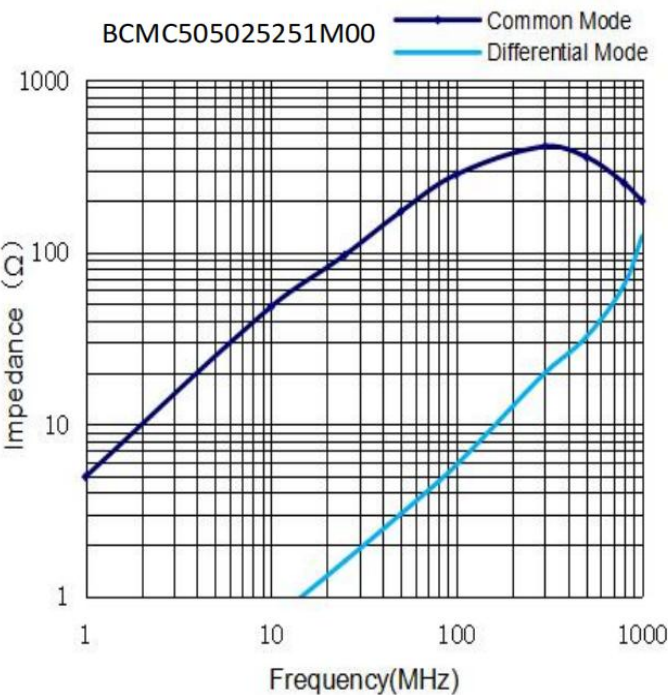
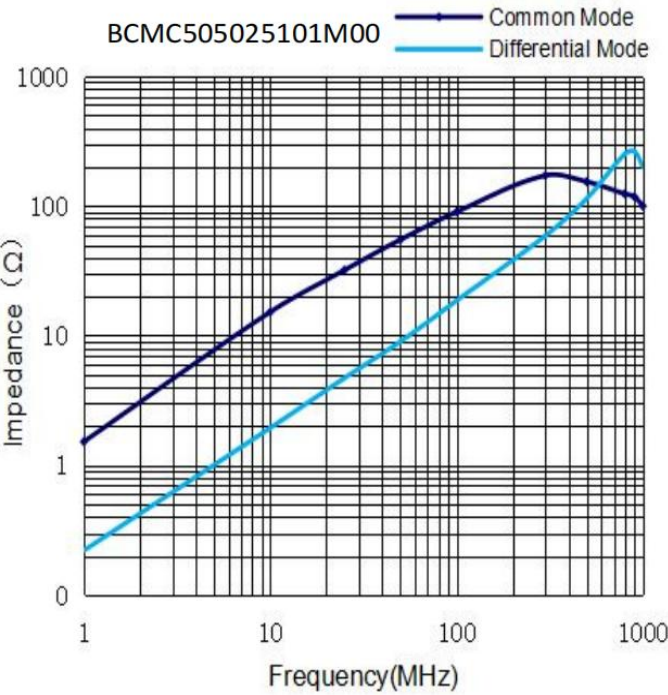
●Operating temperature: -40℃~+125℃

ELECTRICAL CHARACTERISTICS(@ 25℃)

Part No.	Impedance (Ω)Typ	Test Freq	DCR (mΩ) ±40%	Rated Current (A) Typ	Rated Voltage (V) Max	Insulation Resistance (MΩ)Min	Marking
BCMC505025101M00	100	100MHz	9	6.0	50	10	101
BCMC505025251M00	250	100MHz	14	4.00	50	10	251
BCMC505025351M00	350	100MHz	19	4.00	50	10	351
BCMC505025501M00	500	100MHz	19	4.00	50	10	501
BCMC505025102M00	1000	100MHz	24	2.00	50	10	102
BCMC505025142M00	1400	100MHz	40	1.50	50	10	142

Rated Current: ΔT≦40℃ Typ

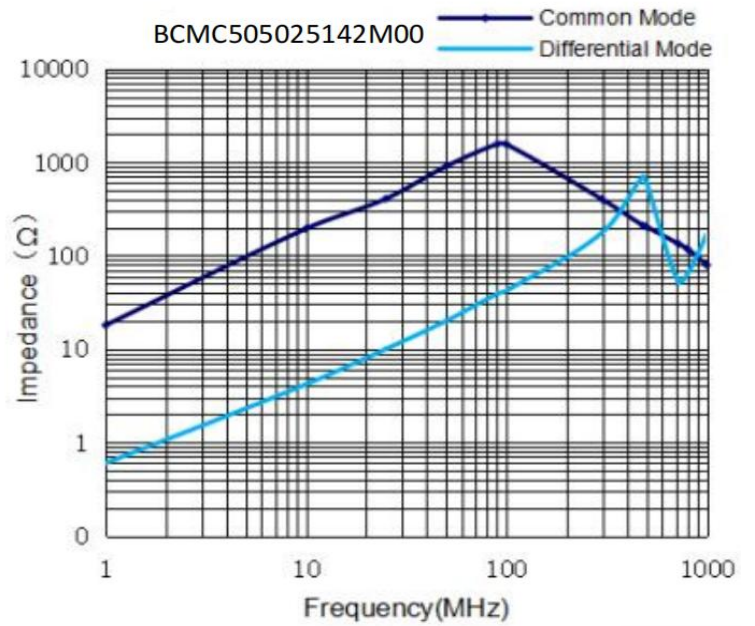
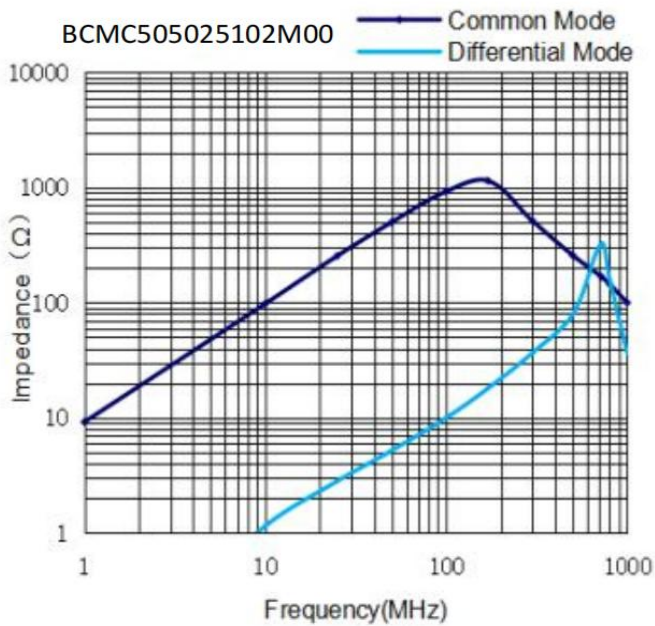
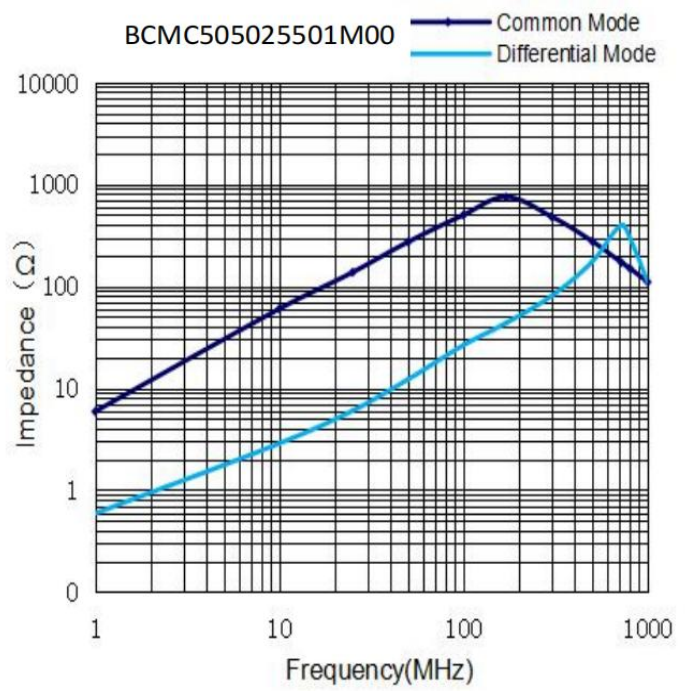
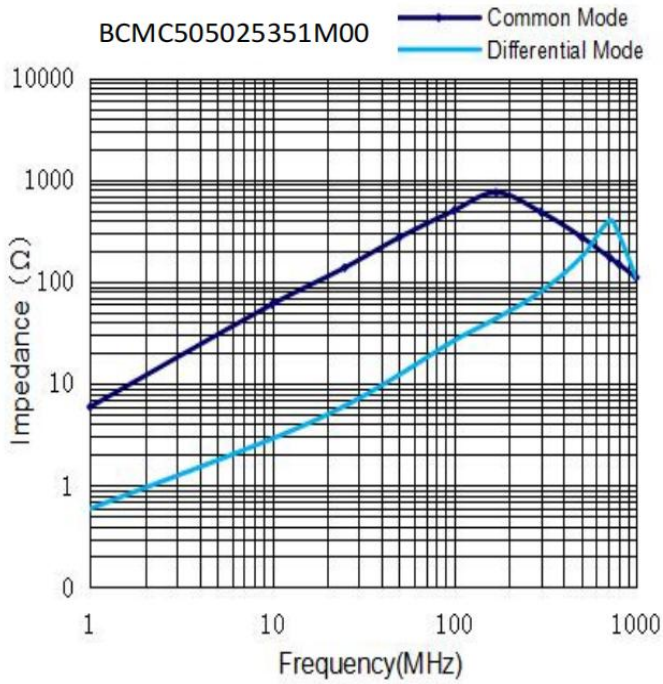
Typical Eleectrical Characteristics



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6. Reliable Performance

TEST DATA FOR PREPRODUCTION SAMPLES(BCMC505025101M00)

MEAS. Item	Impedance (Ω) Typ	DCR (mΩ)				A (mm)	B (mm)	C (mm)
Spec	100	9±40%				4.8±0.3	5.0±0.3	2.50Max
Test Freq	100MHz							
1	138	10.5				4.85	5.03	2.36
2	103	10.3				4.88	5.04	2.35
3	128	10.4				4.91	5.01	2.41
4	135	10.8				4.84	5.02	2.38
5	128	10.6				4.82	5.04	2.40
6	115	10.6				4.78	5.03	2.40
7	125	10.2				4.83	5.02	2.42
8	121	10.2				4.82	5.01	2.44
9	128	10.4				4.8	5.02	2.43
10	123	10.5				4.79	5.01	2.40
X	124	10.5				4.83	5.02	2.40
R	35.0	0.60				0.13	0.03	0.09

TEST INSTRUMENT:

Impedance 4287A

DCR GKT-502BC

PRODUCT SPECIFICATION

SPEC. NO.

C-2025-02

TEST DATA FOR PREPRODUCTION SAMPLES(BCMC505025251M00)

MEAS. Item	Impedance (Ω) Typ	DCR (m Ω)				A (mm)	B (mm)	C (mm)
Spec	250	14±40%				4.8±0.3	5.0±0.3	2.50Max
Test Freq	100MHz							
1	338	12.9				4.79	5.03	2.41
2	342	13.8				4.8	5.02	2.42
3	308	13.4				4.8	5.02	2.41
4	311	13.5				4.81	5.04	2.43
5	354	13.7				4.79	5.01	2.42
6	322	13.6				4.78	5.03	2.40
7	318	12.9				4.83	5.02	2.42
8	332	13.1				4.82	5.01	2.44
9	305	13.6				4.8	5.02	2.43
10	303	13.2				4.79	5.01	2.40
X	323	13.4				4.8	5.02	2.42
R	51.0	0.90				0.05	0.03	0.04

TEST INSTRUMENT:

Impedance 4287A

DCR GKT-502BC

PRODUCT SPECIFICATION

SPEC. NO.

C-2025-02

TEST DATA FOR PREPRODUCTION SAMPLES(BCMC505025351M00)

MEAS. Item	Impedance (Ω) Typ	DCR (mΩ)				A (mm)	B (mm)	C (mm)
Spec	350	19±40%				4.8±0.3	5.0±0.3	2.50Max
Test Freq	100MHz							
1	558	18.2				4.78	5.03	2.43
2	542	19.4				4.82	5.02	2.44
3	562	17.9				4.81	5.03	2.45
4	558	18.5				4.80	5.05	2.42
5	572	17.8				4.82	5.01	2.41
6	578	18.8				4.81	4.98	2.43
7	546	19.4				4.78	5.02	2.42
8	551	19.6				4.82	5.03	2.44
9	547	18.4				4.8	5.02	2.43
10	558	18.2				4.81	5.01	2.44
X	557	18.6				4.81	5.02	2.43
R	36.0	1.80				0.04	0.07	0.04

TEST INSTRUMENT:

Impedance 4287A

DCR GKT-502BC

PRODUCT SPECIFICATION

SPEC. NO.

C-2025-02

TEST DATA FOR PREPRODUCTION SAMPLES(BCMC505025501M00)

MEAS. Item	Impedance (Ω) Typ	DCR (m Ω)				A (mm)	B (mm)	C (mm)
Spec	500	19 ± 40%				4.8 ± 0.3	5.0 ± 0.3	2.50Max
Test Freq	100MHz							
1	611	18.2				4.78	5.03	2.43
2	605	19.4				4.82	5.02	2.44
3	589	17.9				4.81	5.03	2.45
4	617	18.5				4.80	5.05	2.42
5	617	17.8				4.82	5.01	2.41
6	622	18.8				4.81	4.98	2.43
7	634	19.4				4.78	5.02	2.42
8	628	19.6				4.82	5.03	2.44
9	599	18.4				4.8	5.02	2.43
10	605	18.2				4.81	5.01	2.44
X	613	18.6				4.81	5.02	2.43
R	45.0	1.80				0.04	0.07	0.04

TEST INSTRUMENT:

Impedance 4287A

DCR GKT-502BC

PRODUCT SPECIFICATION

SPEC. NO.

C-2025-02

TEST DATA FOR PREPRODUCTION SAMPLES(BCMC505025102M00)

MEAS. Item	Impedance (Ω) Typ	DCR (mΩ)				A (mm)	B (mm)	C (mm)
Spec	1000	24±40%				4.8±0.3	5.0±0.3	2.50Max
Test Freq	100MHz							
1	1011	23.7				4.81	5.04	2.42
2	1024	22.6				4.80	5.05	2.43
3	1038	24.4				4.79	5.02	2.45
4	1015	23.8				4.82	5.04	2.46
5	1024	25.5				4.83	5.03	2.44
6	1030	24.0				4.82	5.02	2.43
7	1029	24.3				4.85	5.05	2.45
8	1017	23.6				4.82	5.03	2.43
9	1020	24.5				4.8	5.02	2.42
10	1030	23.4				4.79	5.01	2.43
X	1024	24.0				4.81	5.03	2.44
R	27.0	2.90				0.06	0.04	0.04

TEST INSTRUMENT:

Impedance 4287A

DCR GKT-502BC

PRODUCT SPECIFICATION

SPEC. NO.

C-2025-02

TEST DATA FOR PREPRODUCTION SAMPLES(BCMC505025142M00)

MEAS. Item	Impedance (Ω) Typ	DCR (mΩ)				A (mm)	B (mm)	C (mm)
Spec	1400	40±40%				4.8±0.3	5.0±0.3	2.50Max
Test Freq	100MHz	—						
1	1520	30.8				4.82	5.02	2.42
2	1530	31.2				4.78	5.03	2.41
3	1540	31.2				4.81	5.03	2.43
4	1528	30.8				4.80	5.01	2.43
5	1556	30.4				4.79	5.05	2.41
6	1521	30.6				4.82	5.02	2.45
7	1520	31.6				4.83	5.04	2.42
8	1567	30.5				4.82	5.02	2.43
9	1520	30.3				4.8	5.03	2.44
10	1476	30.9				4.79	5.01	2.43
X	1528	30.8				4.81	5.03	2.43
R	91.0	1.30				0.05	0.04	0.04

TEST INSTRUMENT:

Impedance 4287A

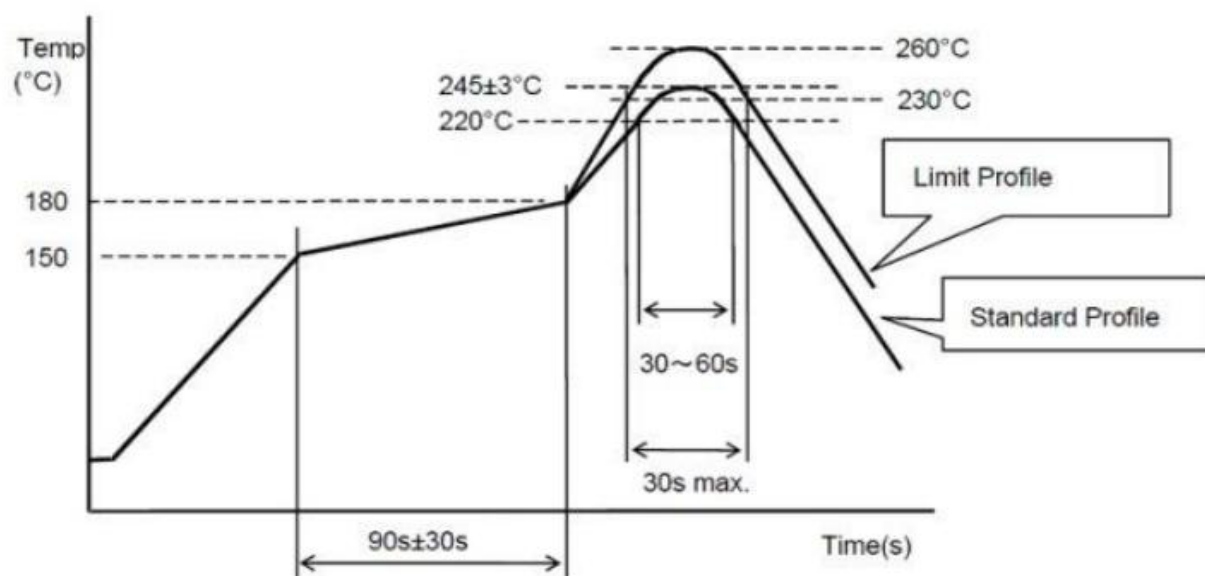
DCR GKT-502BC

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7.Recommended Soldering Conditions



	Standard Profile	Limit Profile
Pre-heating	150~180°C、90s±30s	
Heating	above 220°C、30s-60s	above 230°C、30s max
Peak temperature	245°C±3°C	260°C、10s
Cycle of reflow	2 times	2 times



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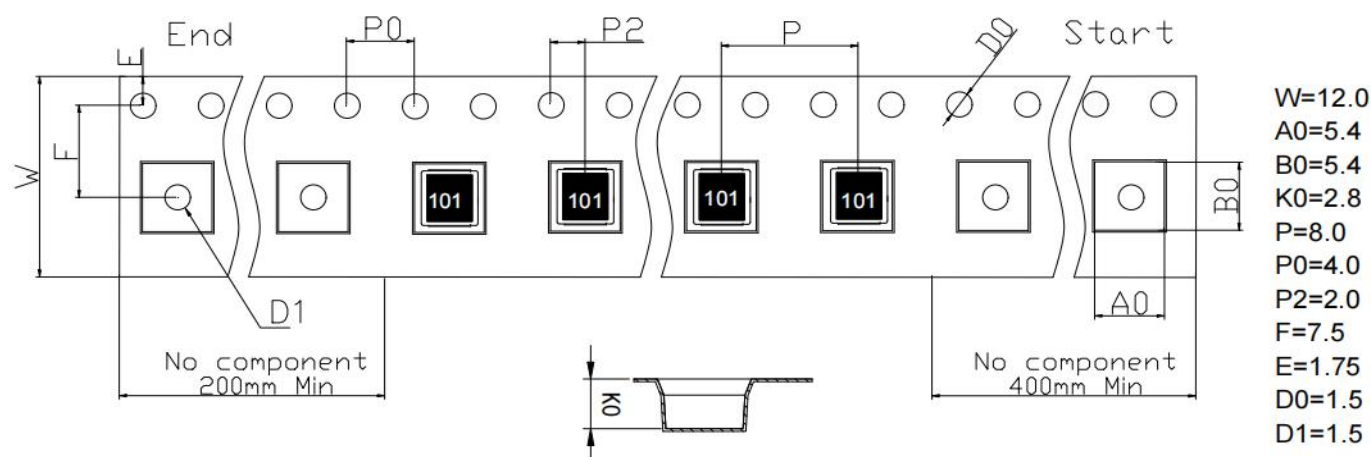
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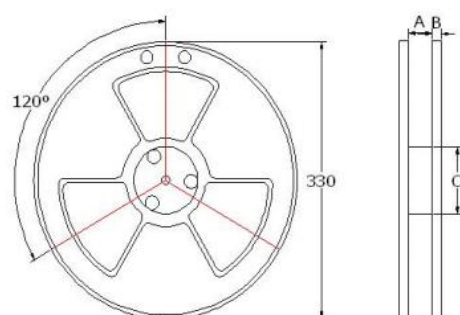
8.Packaging

Carrier Tape (Unit:mm)



透明載帶+透明上帶.

Reel (Unit:mm)



A=12.5
B=2.3
C=100

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Packaging quantities

QTY

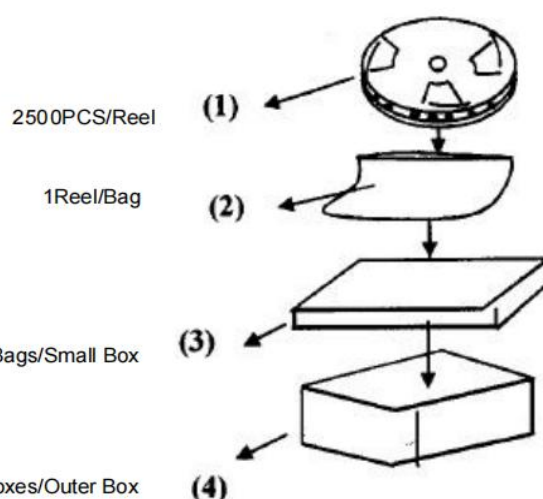
Reel(Pcs) 2,500

Middle Carton(Pcs) 7,500

Big Carton(Pcs) 37,500

N.W(Kg)

G.W(Kg)



9.Storage

(1) Storage period

Use the products within 12 months after delivered. Solderability should be checked if this period is exceeded.

(2) Storage conditions

- Storage temperature: $-40^{\circ}\text{C}\sim+125^{\circ}\text{C}$
- Storage environment: $0^{\circ}\text{C}\sim+40^{\circ}\text{C}$ humidity: RH10%~70%

(3) Delivery

Care should be taken when transporting or handling product to avoid excessive vibration or mechanical shock.