

PRODUCT SPECIFICATION

SPEC. NO: C-2512-02

DATE: Dec.7,2025

CUSTOMER'S PRODUCT NAME:

EMTEK PRODUCT NAME:

BCMC474520-SERIES

THIS SPECIFICATION IS:

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



SIGNATURE: _____ DATE: _____

NAME(PRINT): _____

TITLE: _____

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EMTEK CO., LTD.

FACTORY:

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TEL: 03-5894-433

FAX: 03-5894-523

PRODUCT SPECIFICATION

SPEC. NO.

C-2025-02

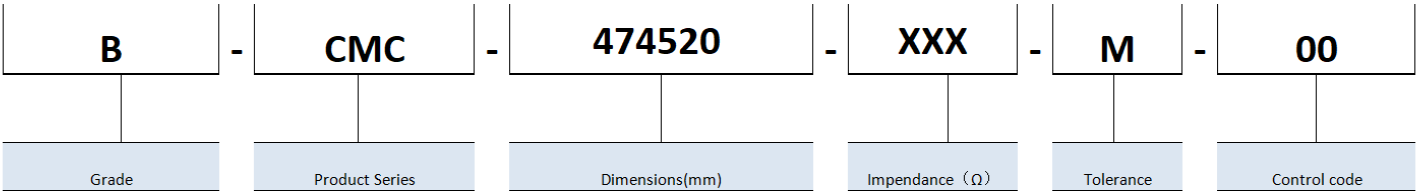
1. Features

- Common-mode Interference Suppression: At 100MHz test frequency, provides multiple typical impedance options (90Ω ~1400Ω), efficiently filters common-mode electromagnetic interference (EMI) in circuits, and meets electromagnetic compatibility requirements.
- Essential 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 1.9A to 3.2A ($\Delta T \leq 40^{\circ}\text{C}$), adapts to circuits with different power requirements, and stably carries operating current within the rated range.

2. Application

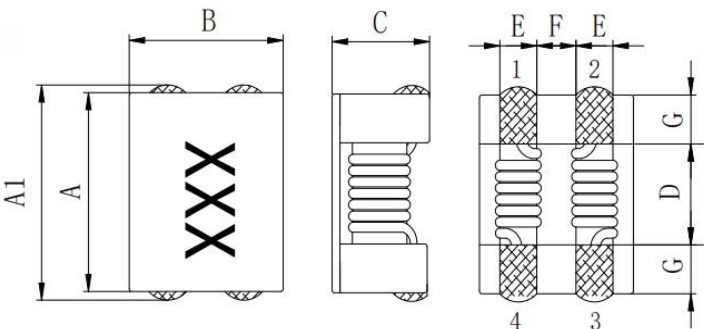
- Suitable for consumer electronics such as small routers and data cables.
- Portable digital devices such as Bluetooth speakers and smart watches.
- Signal transmission links of small industrial equipment.
- General electronic devices such as printers and scanners.

3. Part numbering



4. Appearance and Dimensions

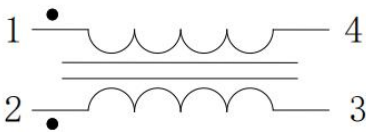
EXTERNAL DIMENSIONS UNIT: mm



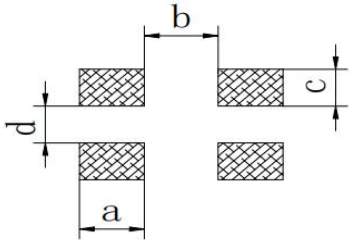
Marking: Black "XXX"

A	A1	B	C	D	E	F	G
4.7±0.5	5.2±0.6	4.5±0.5	2.2Max	2.7Ref	0.75Ref	1.258Ref	1.0Ref

ELECTRICAL SCHEMATIC



PAD LAYOUT UNIT: mm



a	b	c	d
1.75	2.0	1.75	0.9

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C-2025-02

5. Rating

NOTE:

- Operating temperature: -40℃~+125℃

ELECTRICAL CHARACTERISTICS(@ 25℃)

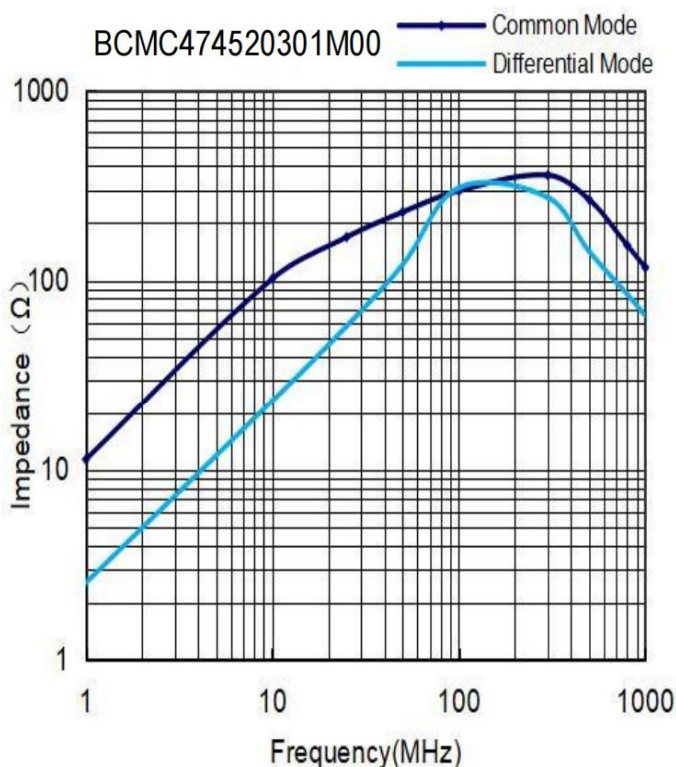
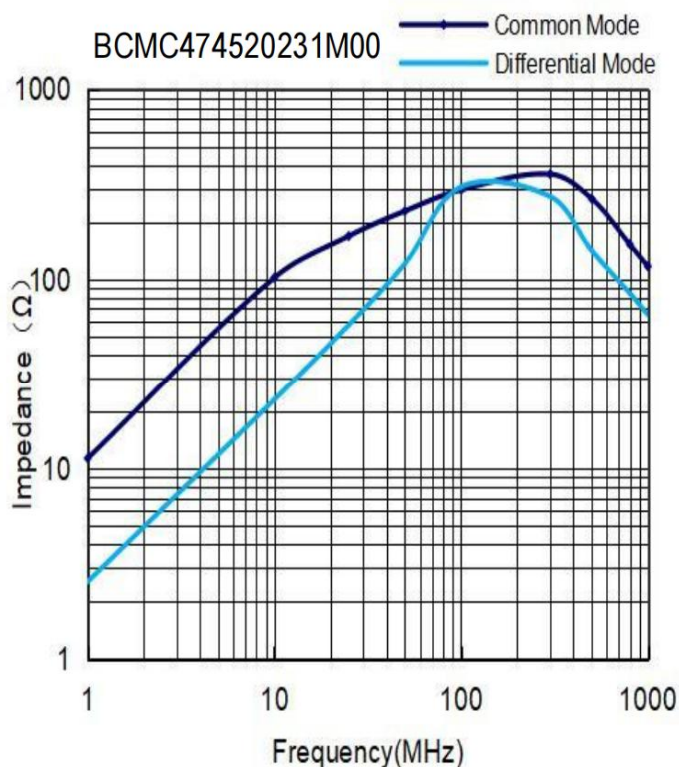
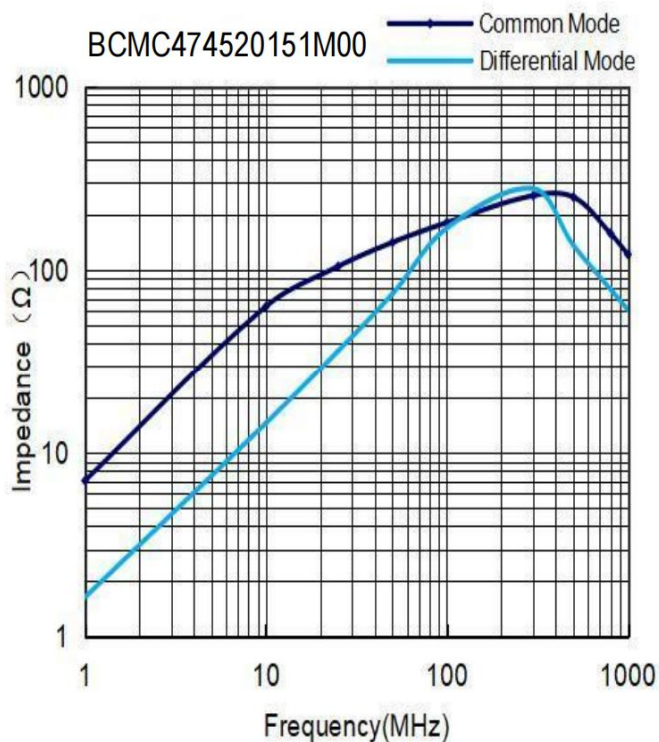
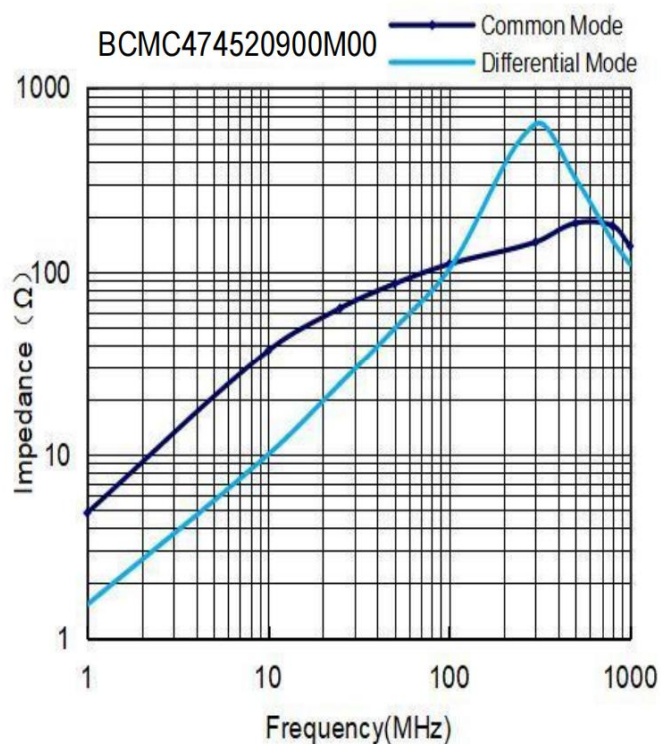
Part No.	Impedance (Ω)	Test Freq	DCR (mΩ)	Rated Current (A)	Rated Voltage (V)	Insulation Resistance (MΩ)	MARKING
BCMC474520900M00	30 Min (90Typ)	100MHz	35 Max	3.2 Max	50 Max	10 Min	900
BCMC474520151M00	80 Min (150Typ)	100MHz	38 Max	3.1 Max	50 Max	10 Min	151
BCMC474520231M00	180 Min (230Typ)	100MHz	39 Max	3.0 Max	50 Max	10 Min	231
BCMC474520301M00	180 Min (300Typ)	100MHz	39 Max	3.0 Max	50 Max	10 Min	301
BCMC474520401M00	200 Min (400Typ)	100MHz	50 Max	2.5 Max	50 Max	10 Min	401
BCMC474520501M00	300 Min (500Typ)	100MHz	55 Max	2.4 Max	50 Max	10 Min	501
BCMC474520701M00	500 Min (700Typ)	100MHz	59 Max	2.2 Max	50 Max	10 Min	701
BCMC474520901M00	700 Min (900Typ)	100MHz	68 Max	2.1 Max	50 Max	10 Min	901
BCMC474520102M00	800 Min (1000Typ)	100MHz	68 Max	2.1 Max	50 Max	10 Min	102
BCMC474520122M00	1000 Min (1200Typ)	100MHz	74 Max	2.0 Max	50 Max	10 Min	122
BCMC474520142M00	1200 Min (1400Typ)	100MHz	81 Max	1.9 Max	50 Max	10 Min	142

PRODUCT SPECIFICATION

SPEC. NO.

C-2025-02

Typical Electrical Characteristics

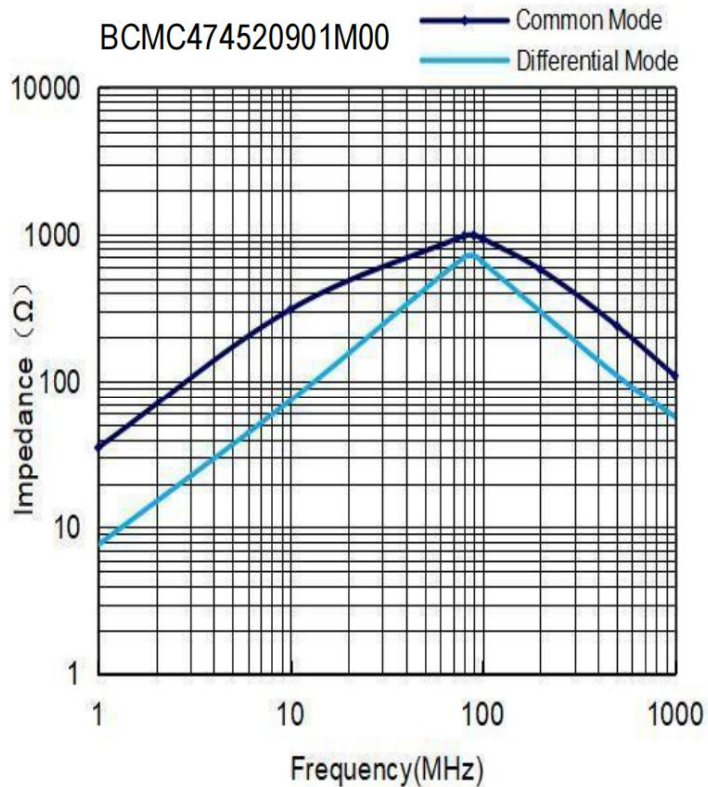
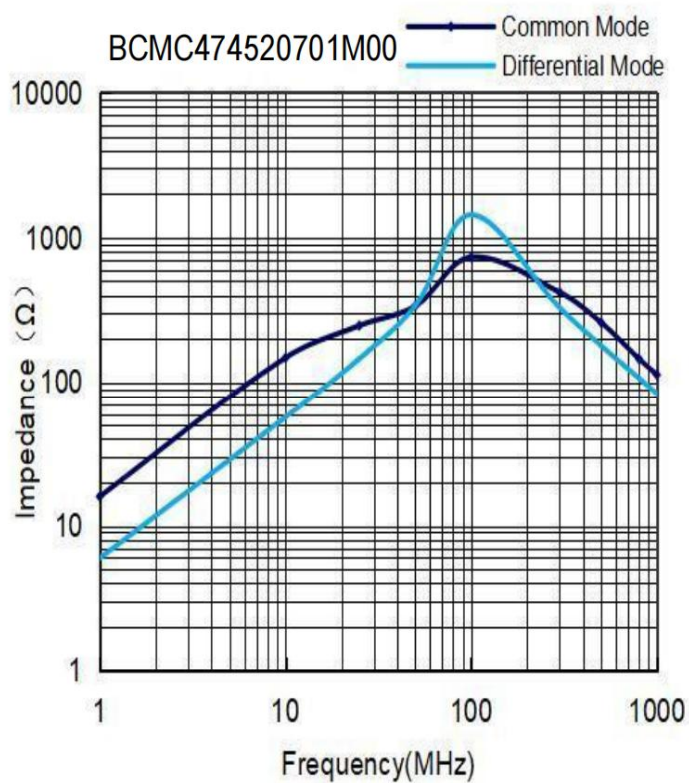
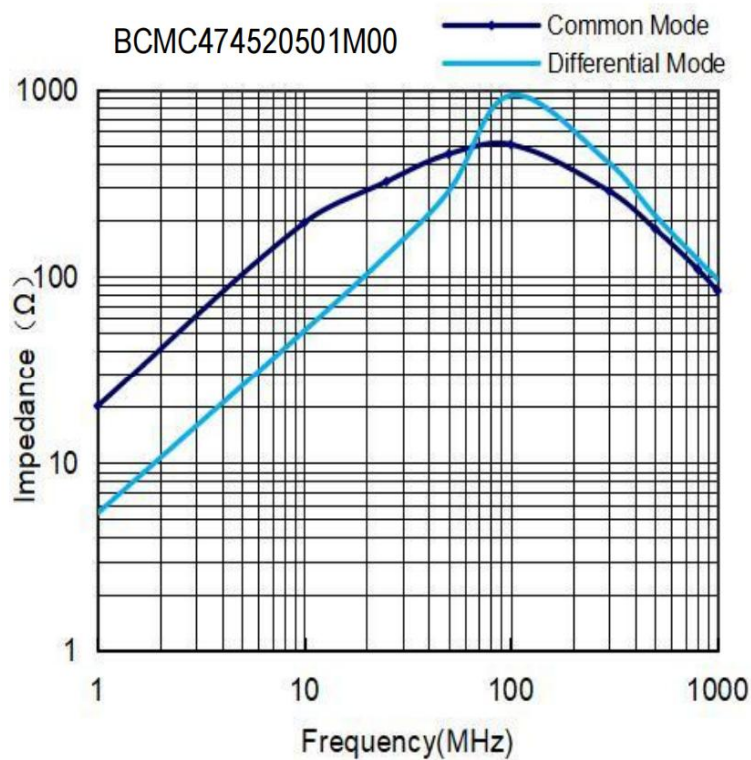
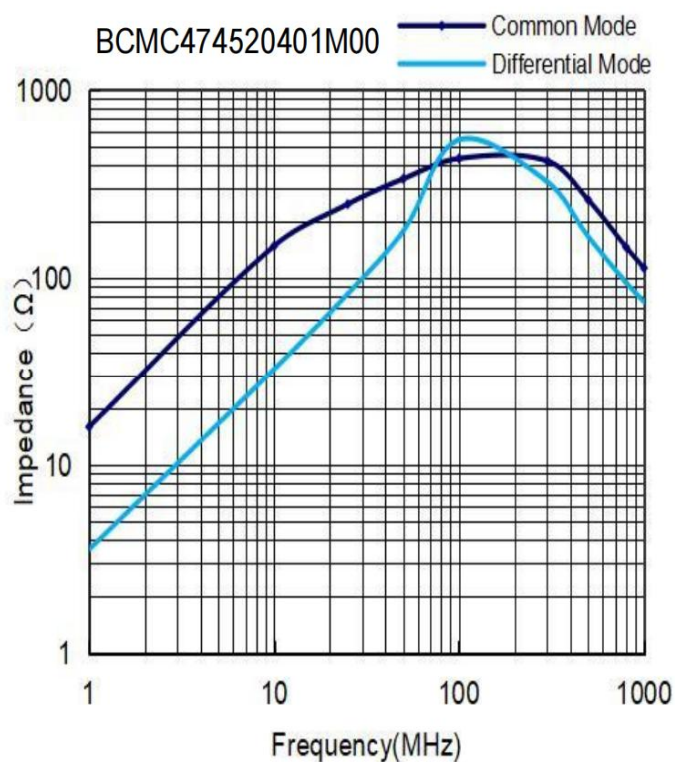


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C-2025-02

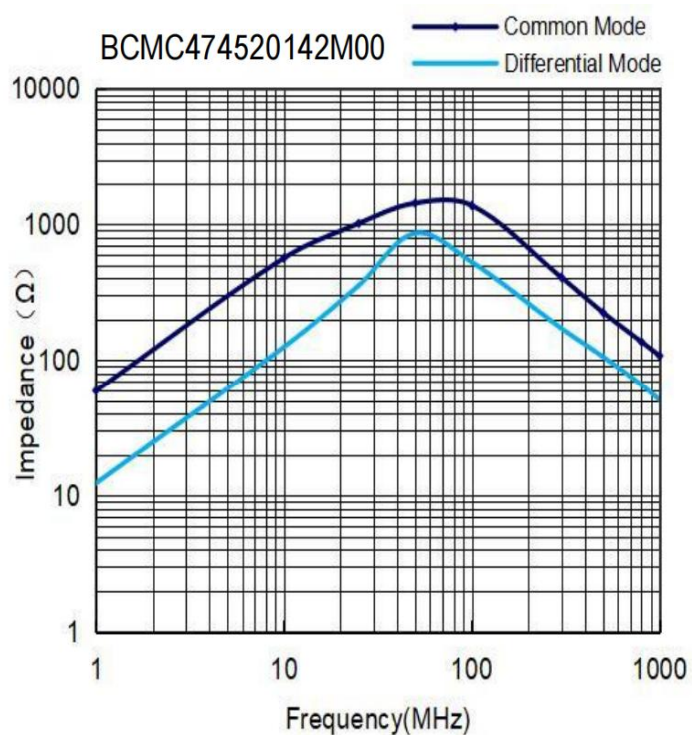
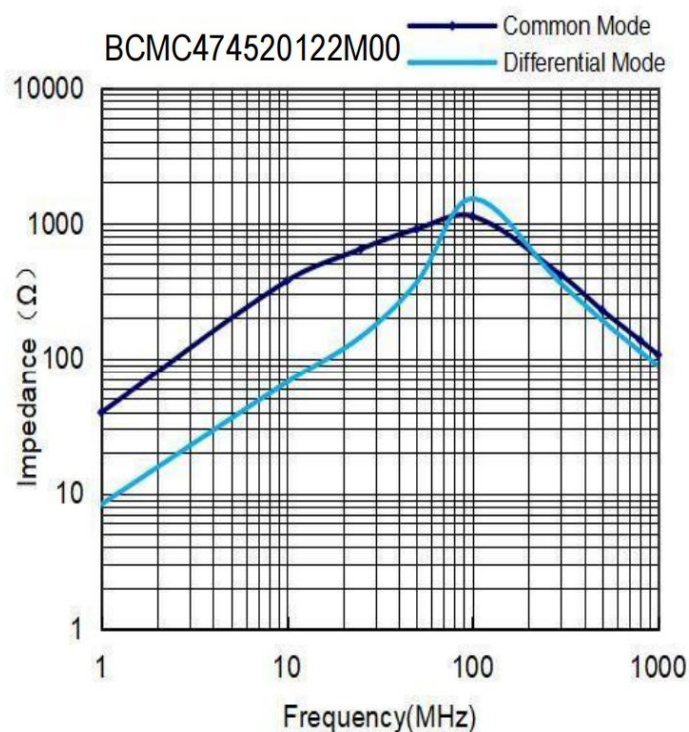
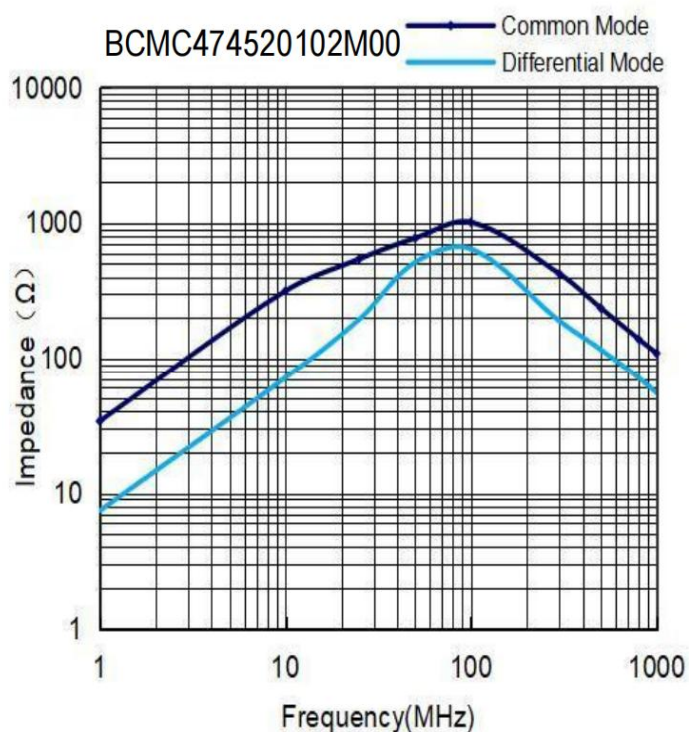


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PRODUCT SPECIFICATION

SPEC. NO.

C-2025-02



PRODUCT SPECIFICATION

SPEC. NO.

C-2025-02

6. Reliable Performance

TEST DATA FOR PREPRODUCTION SAMPLES (BCMC474520900M00)

MEAS. Item	Impedance (Ω)	DCR (mΩ)				A (mm)	B (mm)	C (mm)
Spec	30 Min (90Typ)	35 Max				4.7±0.5	4.5±0.5	2.2Max
Test Freq.	100MHz							
1	101	18.2				4.69	4.45	1.92
2	100	18.2				4.6	4.47	1.98
3	100	18.1				4.68	4.46	1.96
4	101	18.6				4.91	4.47	1.95
5	102	18.7				4.70	4.47	1.94
6	101	18.2				4.70	4.46	1.92
7	102	18.1				4.71	4.45	1.93
8	101	18.1				4.68	4.71	1.96
9	100	18.3				4.39	4.7	1.93
10	101	18.5				4.69	4.72	1.96
X	101	18.3				4.68	4.54	1.94
R	2.00	0.60				0.52	0.27	0.06

TEST INSTRUMENT:

Impedance 4287A

DCR GKT-502BC

PRODUCT SPECIFICATION

SPEC. NO.

C-2025-02

TEST DATA FOR PREPRODUCTION SAMPLES (BCMC474520151M00)

MEAS. Item	Impedance (Ω)	DCR (mΩ)				A (mm)	B (mm)	C (mm)
Spec	80 Min(150Typ)	38 Max				4.7±0.5	4.5±0.5	2.2Max
Test Freq.	100MHz							
1	182	24.0				4.71	4.45	1.96
2	184	25.4				4.7	4.47	1.98
3	181	24.2				4.7	4.46	1.89
4	178	28				4.68	4.47	1.94
5	181	23				4.69	4.47	1.98
6	183	24.2				4.69	4.46	1.93
7	180	23.8				4.69	4.45	1.94
8	182	23.6				4.70	4.71	1.95
9	181	18.3				4.69	4.70	1.94
10	182	18.5				4.68	4.72	1.96
X	182	23.3				4.69	4.54	1.95
R	6.00	9.70				0.03	0.27	0.09

TEST INSTRUMENT:

Impedance 4287A

DCR GKT-502BC

PRODUCT SPECIFICATION

SPEC. NO.

C-2025-02

TEST DATA FOR PREPRODUCTION SAMPLES (BCMC474520231M00)

MEAS. Item	Impedance (Ω)	DCR (mΩ)				A (mm)	B (mm)	C (mm)
Spec	180 Min(230Typ)	39 Max				4.7±0.5	4.5±0.5	2.2Max
Test Freq.	100MHz							
1	289	30				4.63	4.44	1.93
2	285	29.1				4.65	4.40	1.95
3	291	30.2				4.64	4.42	1.99
4	280	29.8				4.65	4.41	1.94
5	282	29.3				4.63	4.4	1.98
6	285	29.8				4.64	4.44	1.98
7	283	30.3				4.63	4.43	1.98
8	285	29.7				4.70	4.45	1.96
9	285	29.5				4.69	4.44	1.94
10	286	30.2				4.68	4.45	1.96
X	285	29.8				4.65	4.43	1.96
R	11.0	1.20				0.07	0.05	0.06

TEST INSTRUMENT:

Impedance 4287A

DCR GKT-502BC

PRODUCT SPECIFICATION

SPEC. NO.

C-2025-02

TEST DATA FOR PREPRODUCTION SAMPLES (BCMC4744520301M00)

MEAS. Item	Impedance (Ω)	DCR (mΩ)				A (mm)	B (mm)	C (mm)
Spec	180 Min(300Typ)	39 Max				4.7±0.5	4.5±0.5	2.2Max
Test Freq.	100MHz							
1	278	32.0				4.67	4.42	1.94
2	289	31.9				4.63	4.46	1.92
3	298	28.8				4.66	4.46	1.94
4	286	31.5				4.63	4.45	1.95
5	282	30.7				4.65	4.47	1.93
6	287	29.8				4.62	4.43	1.95
7	285	29.1				4.65	4.42	1.98
8	286	30.0				4.64	4.46	1.96
9	281	29.7				4.67	4.45	1.95
10	279	28.9				4.61	4.44	1.93
X	285	30.2				4.64	4.45	1.95
R	20.0	3.20				0.06	0.05	0.06

TEST INSTRUMENT:

Impedance 4287A

DCR GKT-502BC



PRODUCT SPECIFICATION

SPEC. NO.

C-2025-02

TEST DATA FOR PREPRODUCTION SAMPLES (BCMC474520401M00)

MEAS. Item	Impedance (Ω)	DCR (m Ω)				A (mm)	B (mm)	C (mm)
Spec	200 Min(400Typ)	50 Max				4. 7±0. 5	4. 5±0. 5	2. 2Max
Test Freq.	100MHz							
1	382	37. 0				4. 64	4. 42	1. 95
2	384	35. 8				4. 65	4. 43	1. 97
3	395	36. 8				4. 67	4. 46	1. 95
4	395	37. 6				4. 63	4. 43	1. 98
5	396	36. 6				4. 62	4. 42	1. 96
6	393	36. 2				4. 65	4. 45	1. 93
7	381	36. 4				4. 67	4. 45	1. 92
8	383	36. 8				4. 65	4. 43	1. 93
9	381	36. 7				4. 64	4. 44	1. 95
10	394	37. 2				4. 63	4. 40	1. 96
X	388	36. 7				4. 65	4. 43	1. 95
R	15. 0	1. 80				0. 05	0. 06	0. 06

TEST INSTRUMENT:

Impedance 4287A

DCR GKT-502BC

PRODUCT SPECIFICATION

SPEC. NO.

C-2025-02

TEST DATA FOR PREPRODUCTION SAMPLES (BCMC474520701M00)

MEAS. Item	Impedance (Ω)	DCR (m Ω)				A (mm)	B (mm)	C (mm)
Spec	500 Min(700Typ)	59 Max				4. 7±0. 5	4. 5±0. 5	2. 2Max
Test Freq.	100MHz							
1	734	44. 7				4. 69	4. 46	1. 98
2	744	45. 3				4. 68	4. 45	1. 95
3	743	48				4. 69	4. 45	1. 96
4	750	45. 1				4. 73	4. 47	1. 98
5	733	45. 5				4. 63	4. 46	1. 98
6	739	46. 2				4. 65	4. 46	1. 98
7	742	45. 3				4. 68	4. 45	1. 00
8	738	44. 5				4. 68	4. 44	1. 98
9	791	46. 3				4. 67	4. 46	1. 96
10	744	45. 3				4. 69	4. 47	1. 95
X	746	45. 6				4. 68	4. 46	1. 87
R	58. 0	3. 50				0. 10	0. 03	0. 98

TEST INSTRUMENT:

Impedance 4287A

DCR GKT-502BC

PRODUCT SPECIFICATION

SPEC. NO.

C-2025-02

TEST DATA FOR PREPRODUCTION SAMPLES (BCMC474520102M00)

EAS. Item	Impedance (Ω)	DCR (mΩ)				A (mm)	B (mm)	C (mm)
Spec	800 Min(1000Typ)	68 Max				4.7±0.5	4.5±0.5	2.2Max
Test Freq.	100MHz							
1	902	52.9				4.65	4.45	1.93
2	905	52.6				4.68	4.47	1.95
3	897	52.2				4.63	4.46	1.98
4	904	51.2				4.66	4.35	1.98
5	909	51.4				4.67	4.44	1.95
6	897	52.0				4.69	4.46	1.95
7	898	53.8				4.65	4.47	1.96
8	915	52.1				4.65	4.48	1.95
9	899	53.9				4.64	4.46	1.96
10	897	52.4				4.65	4.42	1.95
X	902	52.5				4.66	4.45	1.96
R	18.0	2.70				0.06	0.14	0.05

TEST INSTRUMENT:

Impedance 4287A

DCR GKT-502BC

PRODUCT SPECIFICATION

SPEC. NO.

C-2025-02

TEST DATA FOR PREPRODUCTION SAMPLES (BCMC474520122M00)

MEAS. Item	Impedance (Ω)	DCR (m Ω)				A (mm)	B (mm)	C (mm)
Spec	1000 Min(1200Typ)	74 Max				4. 7±0. 5	4. 5±0. 5	2. 2Max
Test Freq.	100MHz							
1	1101	56. 5				4. 68	4. 47	1. 93
2	1109	57. 4				4. 66	4. 45	1. 95
3	1095	56. 2				4. 63	4. 49	1. 98
4	1126	54. 8				4. 67	4. 47	1. 98
5	1096	55. 7				4. 65	4. 44	1. 95
6	1098	60. 3				4. 66	4. 46	1. 95
7	1108	58. 9				4. 65	4. 47	1. 96
8	1097	59. 3				4. 65	4. 48	1. 95
9	1195	54. 6				4. 64	4. 46	1. 95
10	1125	54. 6				4. 67	4. 42	1. 95
X	1115	56. 8				4. 66	4. 46	1. 96
R	100. 0	5. 70				0. 05	0. 07	0. 05

TEST INSTRUMENT:

Impedance 4287A

DCR GKT-502BC

PRODUCT SPECIFICATION

SPEC. NO.

C-2025-02

TEST DATA FOR PREPRODUCTION SAMPLES (BCMC474520142M00)

MEAS. Item	Impedance (Ω)	DCR (mΩ)				A (mm)	B (mm)	C (mm)
Spec	1200 Min(1400Typ)	81 Max				4.7±0.5	4.5±0.5	2.2Max
Test Freq.	100MHz							
1	1404	70.2				4.67	4.45	1.94
2	1452	68.7				4.65	4.71	1.95
3	1395	69.2				4.64	4.70	1.94
4	1362	67.2				4.66	4.72	1.96
5	1392	66.5				4.67	4.47	1.98
6	1391	67.3				4.65	4.46	1.93
7	1390	66.7				4.67	4.45	1.94
8	1421	66.8				4.65	4.71	1.95
9	1423	66.4				4.64	4.70	1.94
10	1422	66.8				4.68	4.72	1.96
X	1405	67.6				4.66	4.61	1.95
R	90.0	3.80				0.04	0.27	0.05

TEST INSTRUMENT:

Impedance 4287A

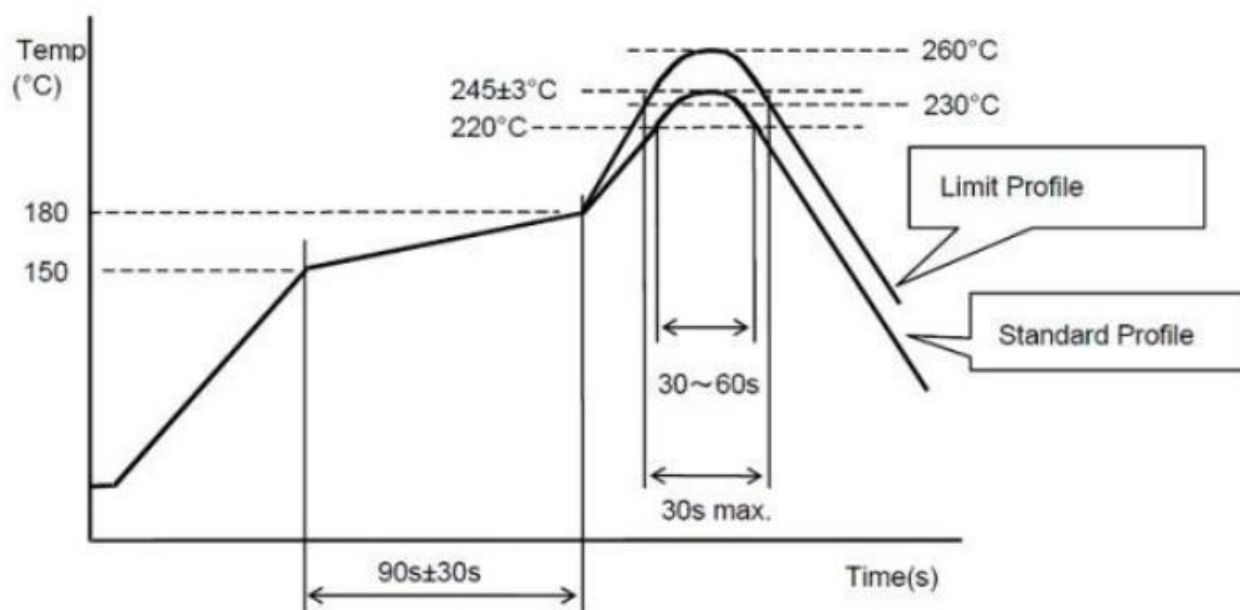
DCR GKT-502BC

PRODUCT SPECIFICATION

SPEC. NO.

C-2025-02

7.Recommended Soldering Conditions



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



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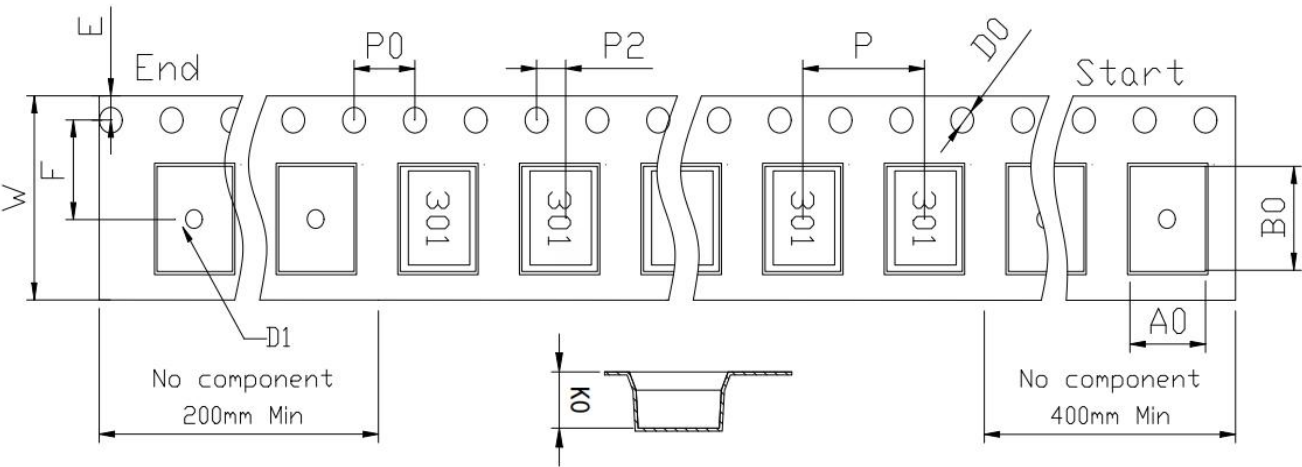
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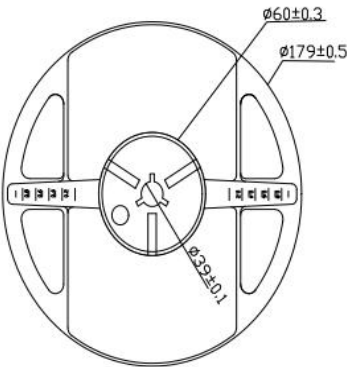
8.Packaging

Carrier Tape (Unit:mm)



透明載帶+透明上帶.

Reel (Unit:mm)



PRODUCT SPECIFICATION

SPEC. NO.

C-2025-02

(2) Packaging quantities

QTY

Reel(Pcs) 1,000

Middle Carton(Pcs) 4,000

Big Carton(Pcs) 40,000

N.W(Kg)

G.W(Kg)

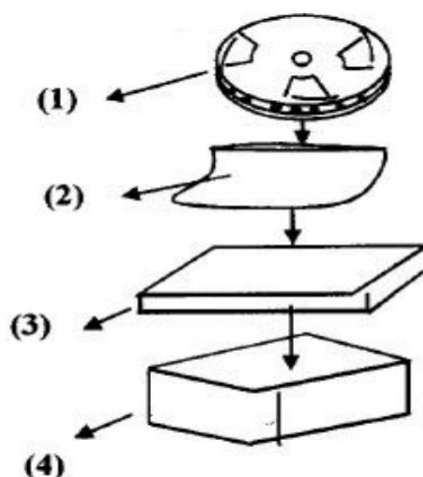
产品单重(g)

1000PCS/Reel

4Reel/Bag

1Bags/Small Box

10Small Boxes/Outer Box



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.



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