PRODUCT SPECIFICATIONS

AIEMC

BMDP201610 — SERIE

CUSTOMER'S PRODUCT NAME:

DATE: 2026.08

SPEC. NO: B-2608-17

THIS SPECIFICATION IS:

○ FULLY ACCEPTED

○ DENIED

○ ACCEPTED UNDER THE FOLLOWING CONDITIONS :

SIGNATURE: DATE:

NAME(PRINT): TITLE:

REACH COMPLIANT

RoHS COMPLIANT

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① Features

- Closed magnetic circuit design reduces leakage flux.
- Using thermal spraying technology, the surface of the inductor is compact
- Low loss alloy powder die casting
- low DC resistance

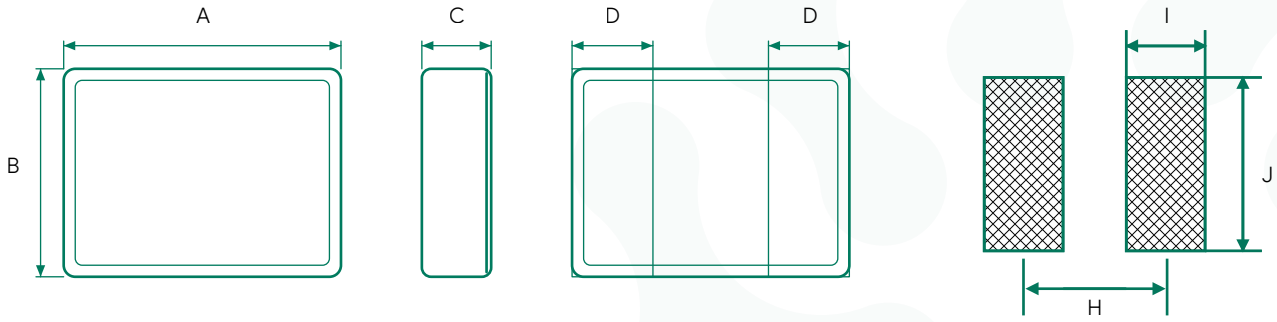
② Application

- LED displays
- Smart wearables
- Smartphones,Pad
- WiFi modules,Integrated modules

③ Part numbering

B	–	MDP	–	201610	–	□□□	–	□	–	00
Grade		Product Series		Dimensions(mm)		Inductance		Tolerance		Control code

④ Appearance and Dimensions



Dimensions in mm

A	2.0 ± 0.2	**B**	1.6 ± 0.2	**C**	1.0Max	**D**	0.5 ± 0.2	**H**	1.5	**I**	1.0	**J**	1.8

⑤ Rating

⚠ NOTE Operating Temperature Range : -55 to +150°C

ELECTRICAL CHARACTERISTICS

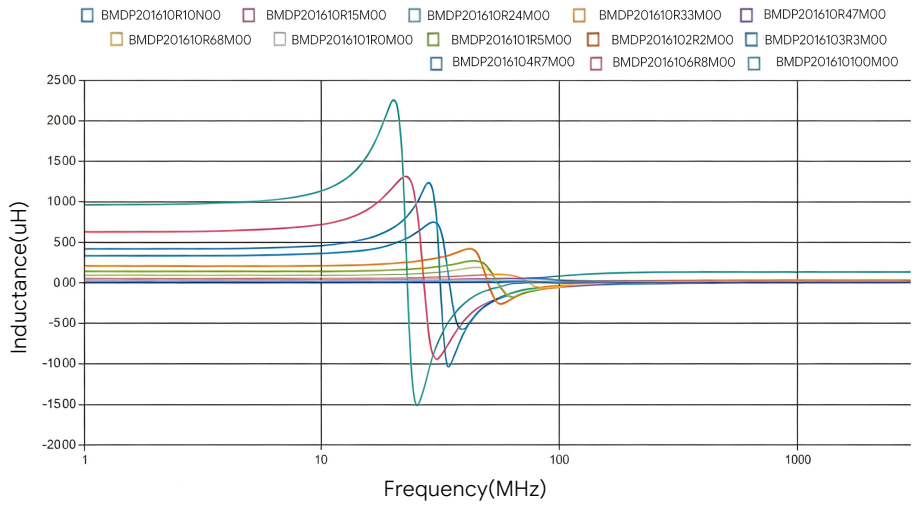
Part No.	Inductance (uH)	Test Freq (Hz/V)	DCR (mΩ)		Isat (A)		Irms (A)	
			Typ	Max	Typ	Max	Typ	Max
BMDP201610R10N00	0.10±30%	1MHz/1V	7	9	12.0	10.0	9.0	8.0
BMDP201610R15M00	0.15±20%	1MHz/1V	8.5	10	10.0	9.0	7.6	7.0
BMDP201610R24M00	0.24±20%	1MHz/1V	11	15	7.8	7.0	7.2	6.6
BMDP201610R33M00	0.33±20%	1MHz/1V	17	20	7.0	6.5	6.5	6.0
BMDP201610R47M00	0.47±20%	1MHz/1V	16	20	7.0	6.0	6.2	5.7
BMDP201610R68M00	0.68±20%	1MHz/1V	24	31	5.2	4.7	5.0	4.5
BMDP2016101R0M00	1.0±20%	1MHz/1V	27	36	4.8	4.2	4.8	4.3
BMDP2016101R5M00	1.5±20%	1MHz/1V	50	60	3.5	3.0	3.2	2.8
BMDP2016102R2M00	2.2±20%	1MHz/1V	73	87	3.0	2.6	2.8	2.5
BMDP2016103R3M00	3.3±20%	1MHz/1V	140	170	2.3	2.0	1.7	1.5
BMDP2016104R7M00	4.7±20%	1MHz/1V	190	220	2.0	1.8	1.6	1.4
BMDP2016106R8M00	6.8±20%	1MHz/1V	400	460	1.5	1.2	1.1	0.8
BMDP201610100M00	10±20%	1MHz/1V	510	580	1.4	1.1	1.0	0.7

⚠ Note

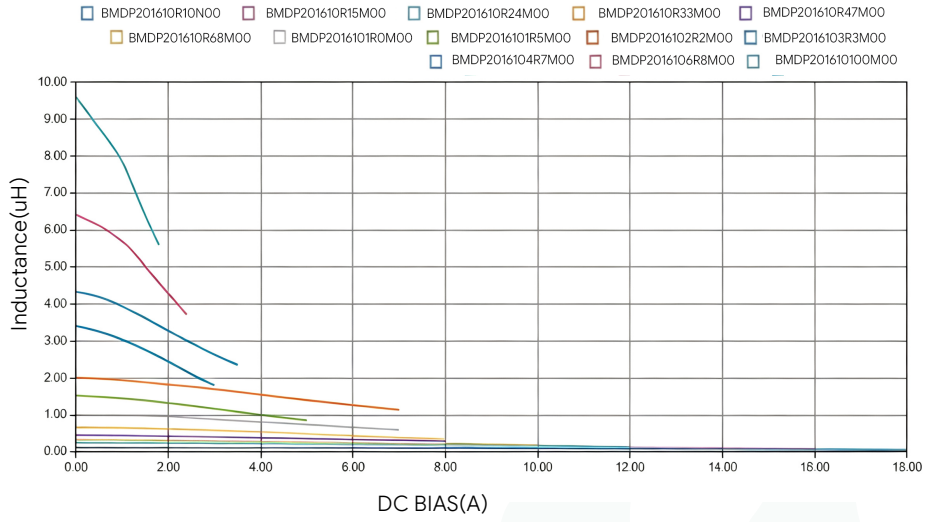
- All test data are referenced to an ambient temperature of 20 ± 5 ℃ and a relative humidity of 60%~80% RH.
- Isat: Max. Value, DC current at which the inductance drops less than 30% from its zero-current value;Typ. Value, DC current at which the inductance drops by approximately 30% from its zero-current value.
- Irms: Max. Value, DC current at which ΔT < 40°C;Typ. Value, DC current at which ΔT ≈ 40°C
- Absolute maximum voltage: DC 25 V.
- Special reminder: Circuit design, component layout, printed circuit board (PCB) size and thickness, and heat dissipation system can all affect product temperature.Please be sure to verify the product's heating condition during final application.

Typical Eleectrical Characteristics

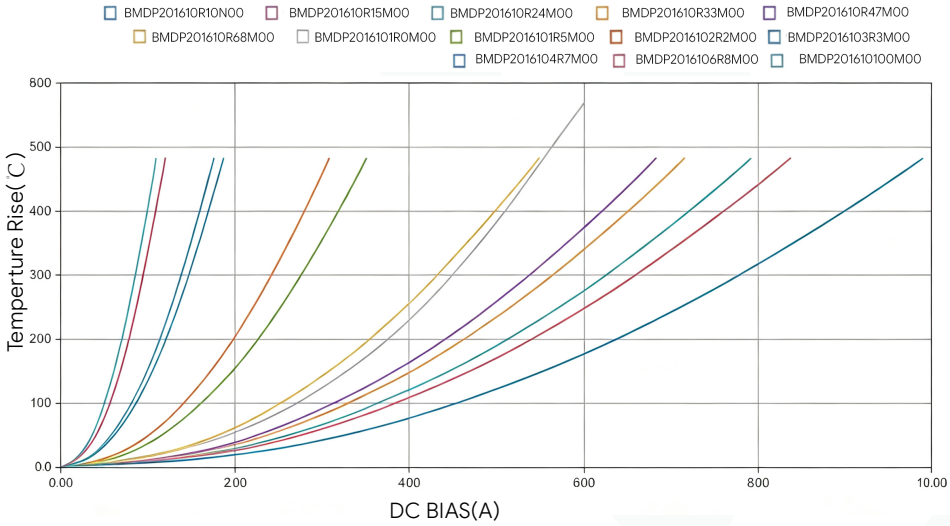
L FREQUENCY CHARACTERISTICS



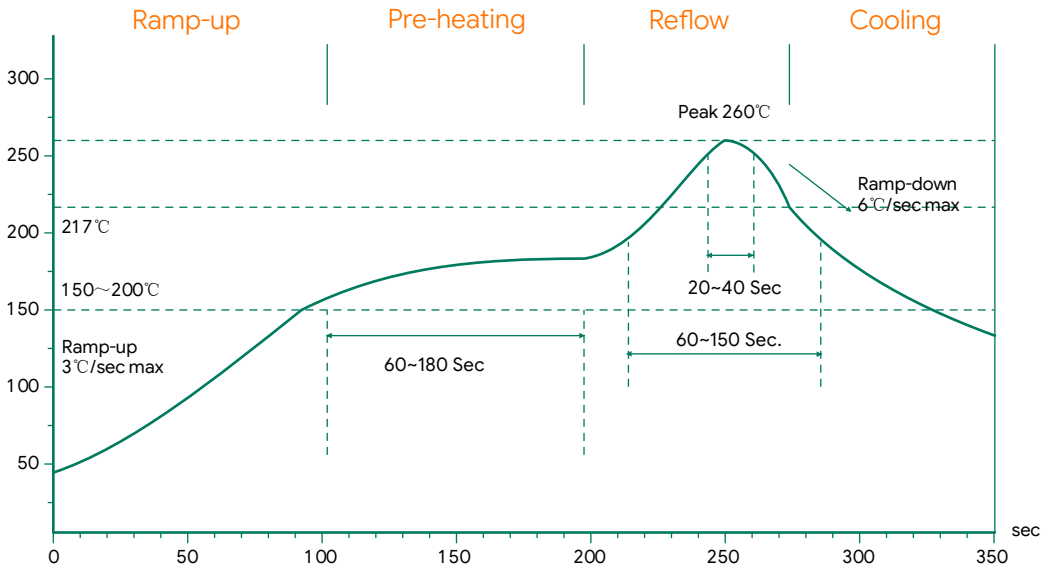
INDUCTANCE VS.DC BIAS CHARACTERISTICS



TEMPERATURE VS. DC BIAS CHARACTERISTICS



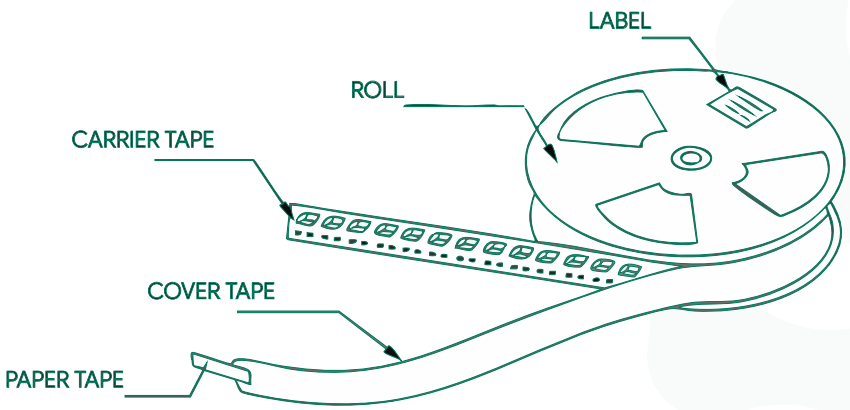
⑥ Recommended Soldering Conditions

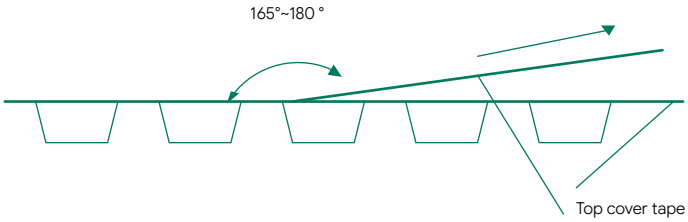


Reflow profi e

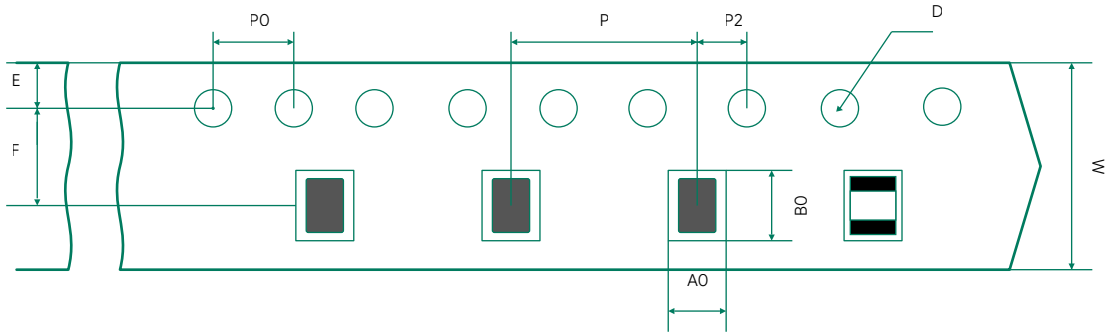
⑦ Packaging

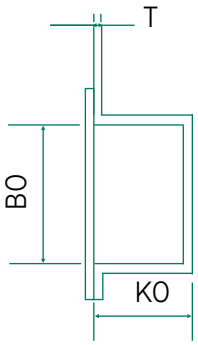
7.1 Taping Figure





7.2 Carrier Tape Dimensions





Tape Dimensions in mm

(Unit:mm)

W	A0	B0	K0	D	F	E	P	P0	P2	T
8.0±0.2	1.95±0.1	2.35±0.1	1.2±0.1	1.5±0.1	3.5±0.1	1.75±0.1	4.0±0.1	4.0±0.1	2.0±0.1	0.25±0.05

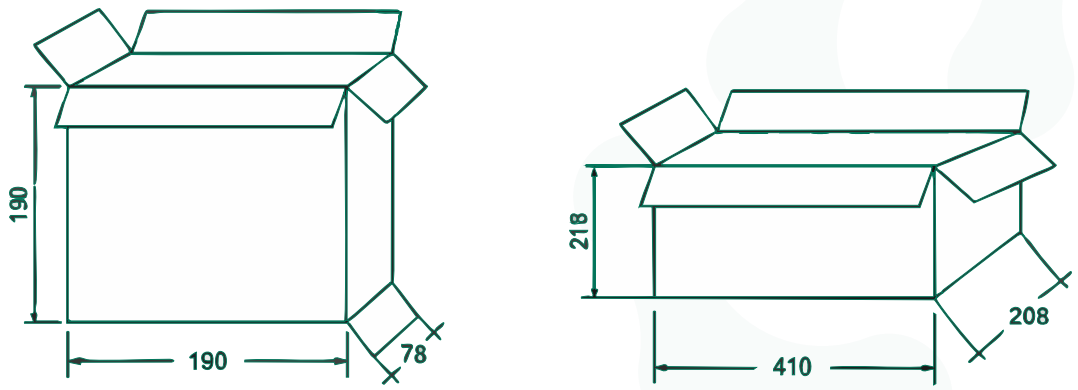
7.3 REEL DIMENSIONS



Tape Dimensions in mm

TYPE	A	B	C
201610	178±1	60±1	13±0.5

7.4 Packaging quantities



Reel	Box	Carton
3000	15000	75000
1Reel	5Reel/1Box	5Box/1Carton

⑧ Rating

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： -55 to +150℃
- Storage environment: –10℃ to +40℃； humidity 70%RH Max

3, Delivery

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