

BMNI Series



BMNI Series is designed for low profile type with low RDC and ultra large current. Its molded magnetic shielded type is suitable for high-density mounting and ultra low buzz noise. Soldering conditions can be easily confirmed when mounting onto the board. This series also provides customers with embossed carrier type packaging for automatic mounting machine.

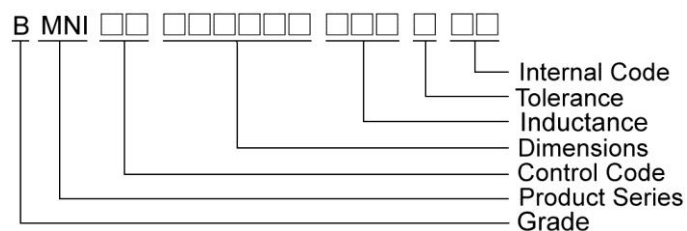
Features

- RoHS, Halogen Free and REACH Compliance
- Low resistance and high current rating
- Magnetic core made by high performance magnetic powder

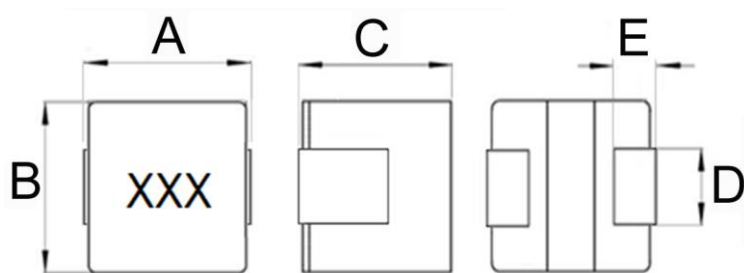
Applications

- Laptop and desktop applications
- High current power supplies
- PMIC
- DC/DC converters

Product Identification



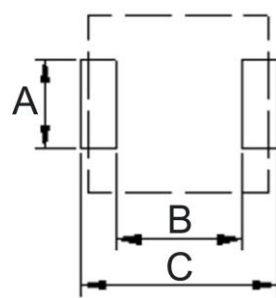
Shape and Dimensions



Dimensions in mm

TYPE	A	B	C	D	E
BMNI00040412	4.1±0.2	4.1±0.2	1.0±0.2	1.8±0.2	0.8±0.2

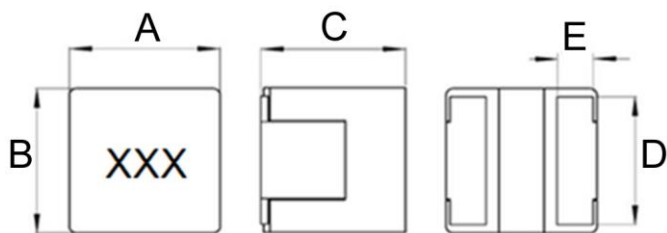
Recommended Pattern



Dimensions in mm

TYPE	A	B	C
BMNI00040412	2.0	2.2	4.4

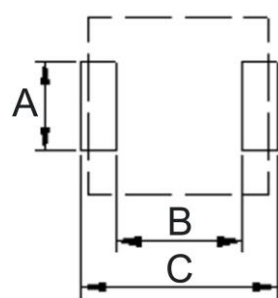
Shape and Dimensions



Dimensions in mm

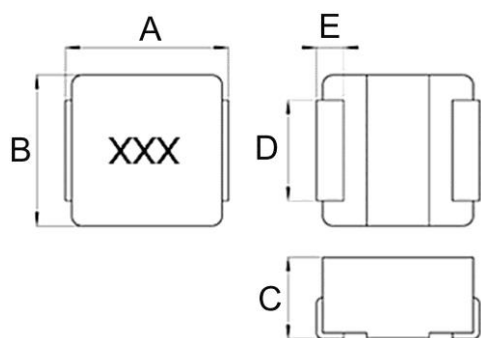
TYPE	A	B	C	D	E
BMNI00040421	4.0±0.3	4.0±0.3	2.1Max	3.4±0.2	1.0±0.4
BMNI00040431	4.0±0.3	4.0±0.3	3.1Max	3.4±0.2	1.0±0.4

Recommended Pattern



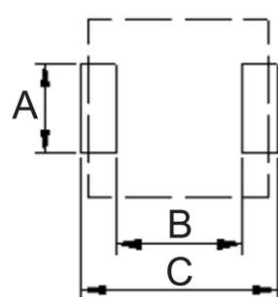
Dimensions in mm

TYPE	A	B	C
BMNI00040421	3.7	1.39	3.35
BMNI00040431	3.7	1.39	3.35



Dimensions in mm

TYPE	A	B	C	D	E
BMNI00060631	6.36±0.2	6.56±0.2	3.1Max	4.7±0.2	1.55±0.2
BMNI00060632	6.36±0.2	6.56±0.2	3.2Max	4.7±0.2	1.55±0.2



Dimensions in mm

TYPE	A	B	C
BMNI00060631	5	2.61	6.7
BMNI00060632	5	2.61	6.7

Molding Power Inductors – BMNI Series

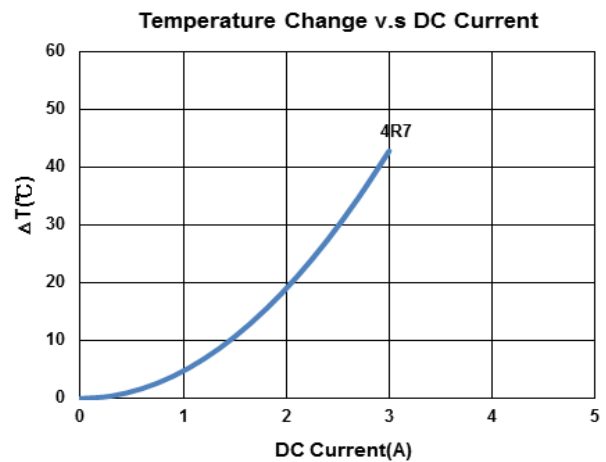
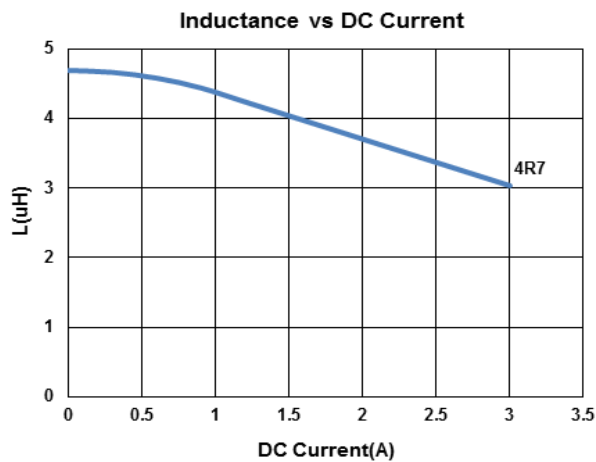
Electrical Characteristics

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (kHz)	RDC(mΩ) Max(Typ.)	Isat(A) Max(Typ.)	Irms(A) Max(Typ.)	Marking
BMNI000404124R7MEX	4.7	20	100	113(94)	2.2(2.5)	2.6(2.9)	4R7

Note: When ordering, please specify tolerance code. Tolerance: M=±20%

- Operating temperature range - 55°C ~ 125°C(Including self - temperature rise)
- Isat for Inductance drop 30% from its value without current
- I rms for a 40°C temperature rise from 25°C ambient with current
- Measure Equipment :
 L : WK 3260B or WK 6500P, 100kHz 0.25V
 RDC : CHEN HWA 502 or CHEN HWA 46502B
 I rms : CHROMA 1810

Test Instruments : WK3260B Impedance / Material Analyzer



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Electrical Characteristics

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (kHz)	RDC(mΩ) Max(Typ.)	Isat (A)Typ.	Irms (A)Typ.	Marking
BMNI000404211R0MXB	1.0	20	100	14.6(13.30)	8.7	9.6	1R0
BMNI000404211R5MXB	1.5	20	100	23.6(21.45)	7.1	7.5	1R5
BMNI000404212R2MXB	2.2	20	100	38.7(35.20)	5.6	5.5	2R2

Note: When ordering, please specify tolerance code. Tolerance: M=±20%

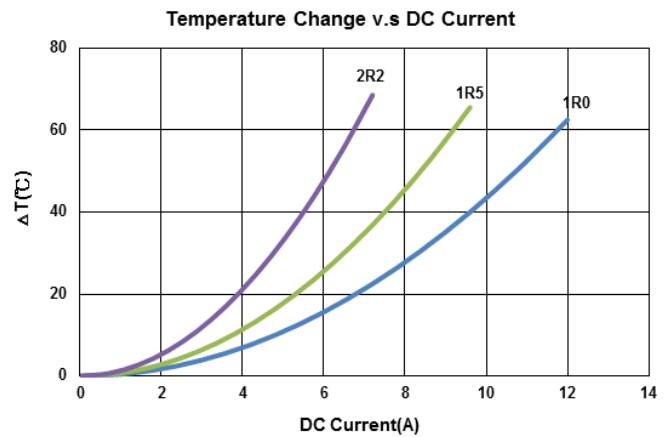
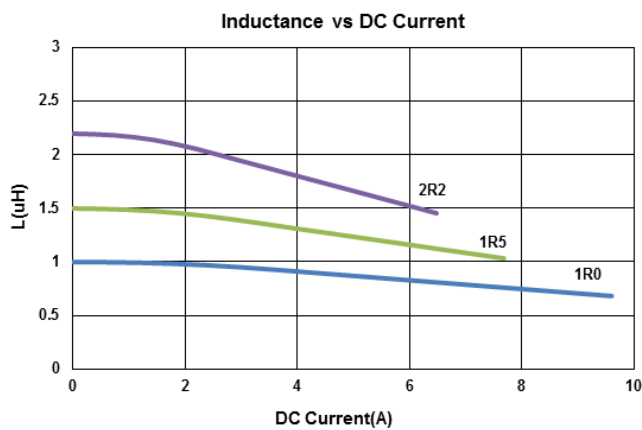
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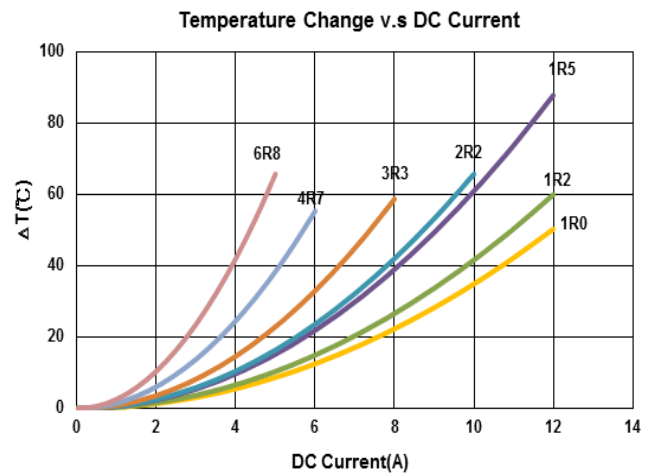
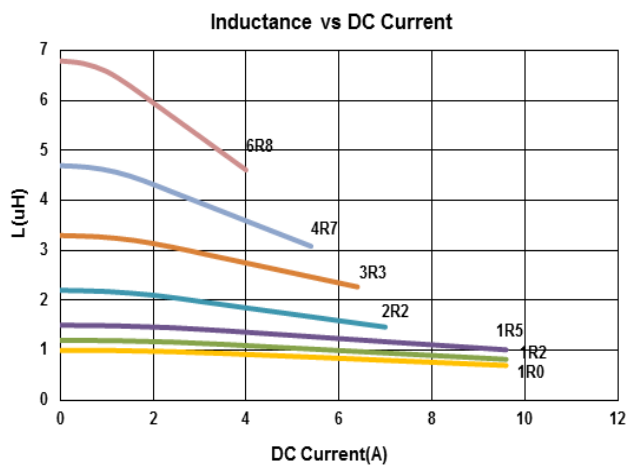
Electrical Characteristics

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (kHz)	RDC(mΩ) Max(Typ.)	Isat (A)Typ.	Irms (A)Typ.	Marking
BMNI000404311R0MXH	1.0	20	100	9.78(8.89)	9.0	10.7	1R0
BMNI000404311R2MXH	1.2	20	100	11.5(10.4)	8.7	9.8	1R2
BMNI000404311R5MXH	1.5	20	100	16.6(15.1)	8.5	8.1	1R5
BMNI000404312R2MXH	2.2	20	100	22.1(20.1)	6.1	7.8	2R2
BMNI000404313R3MXH	3.3	20	100	28.6(26.1)	5.9	6.6	3R3
BMNI000404314R7MXH	4.7	20	100	44.1(40.0)	4.6	5.1	4R7
BMNI000404316R8MXH	6.8	20	100	74.1(67.4)	3.6	3.9	6R8

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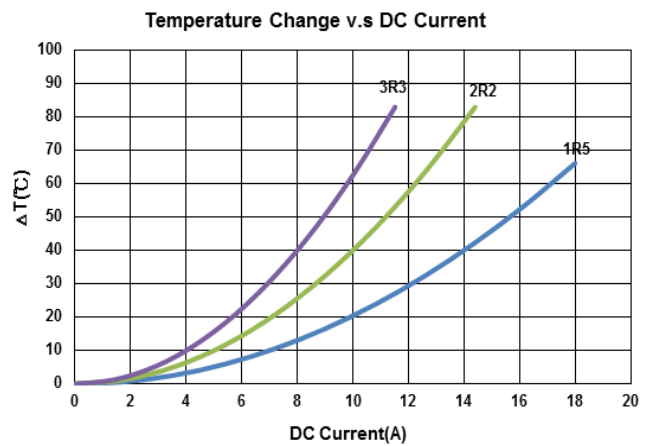
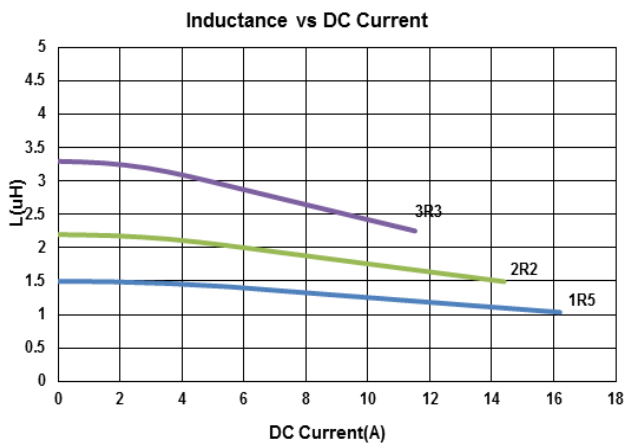
Electrical Characteristics

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (kHz)	RDC(mΩ) Max(Typ.)	Isat (A)Typ.	Irms (A)Typ.	Marking
BMNI000606311R5MXH	1.5	20	100	10.52(9.57)	15	14	1R5
BMNI000606312R2MXH	2.2	20	100	13.97(12.7)	13	10	2R2
BMNI000606313R3MXH	3.3	20	100	20.81(19.92)	10.5	8	3R3

Note: When ordering, please specify tolerance code. Tolerance: M=±20%

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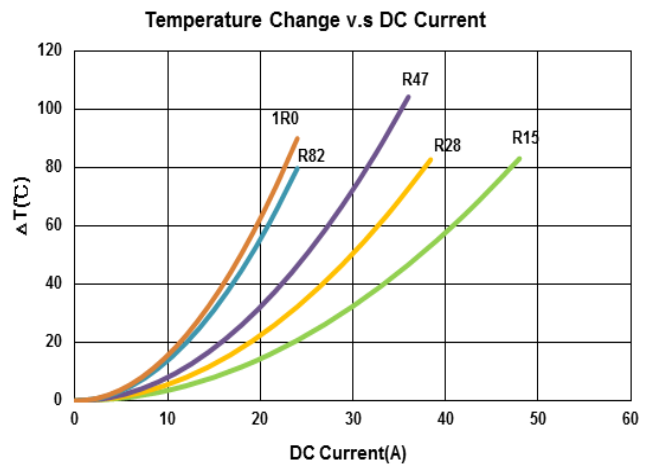
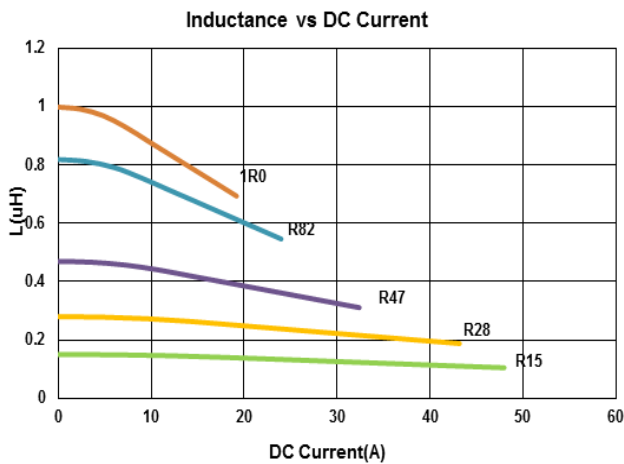
Electrical Characteristics

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (kHz)	RDC(mΩ) Max(Typ.)	Isat (A)Typ.	Irms (A)Typ.	Marking
BMNI00060632R15MXH	0.15	20	100	1.49(1.35)	45	33.3	R15
BMNI00060632R28MXH	0.28	20	100	2.35(2.1)	38	26.7	R28
BMNI00060632R47MXH	0.47	20	100	3.31(3.01)	28	22.3	R47
BMNI00060632R82MXH	0.82	20	100	5.60(5.09)	21	16	R82
BMNI000606321R0MXH	1.0	20	100	6.95(6.32)	18	16	1R0

Note: When ordering, please specify tolerance code. Tolerance: M=±20%

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- Irms for a 40°C temperature rise from 25°C ambient with current
- Measure Equipment :
 L : WK 3260B or WK 6500P, 100kHz 0.25V
 RDC : CHEN HWA 502 or CHEN HWA 46502B
 Irms : CHROMA 1810

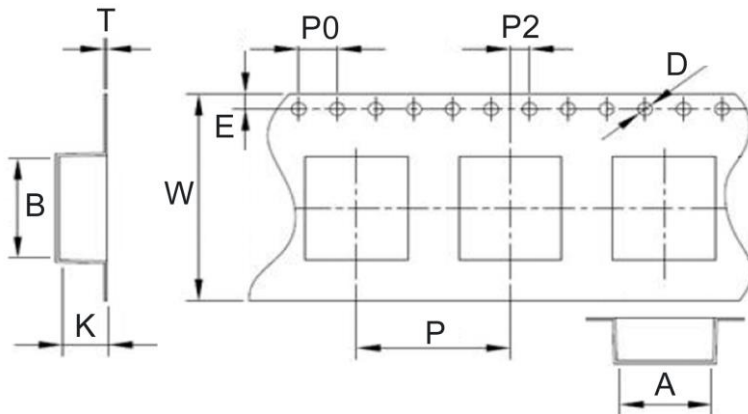
Test Instruments : WK3260B Impedance / Material Analyzer



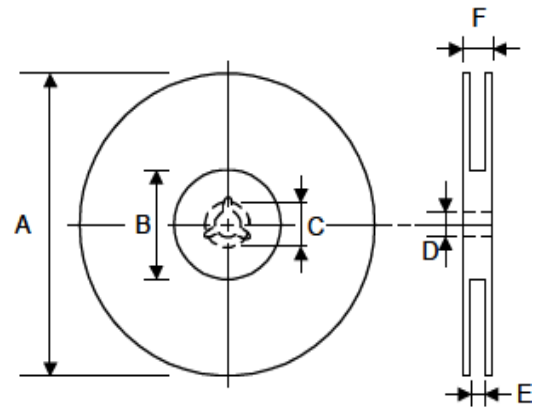
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Packaging Specifications

Tape Dimensions



Reel Dimensions



Dimensions in mm

TYPE	Tape Dimensions											Reel Dimensions						Quantity
	A	B	K	T	D	E	W	P	P0	P2	A	B	C	D	E	F	PCS / REEL	
BMNI00040412	4.3	4.4	1.6	0.35	1.5	1.75	12	8	4	2	330	100	21.5	13	12.4	17.4	2000	
BMNI00040421	4.3	4.4	2.4	0.35	1.5	1.75	12	8	4	2	330	100	21.5	13	12.4	17.4	2000	
BMNI00040431	4.3	4.4	3.5	0.35	1.5	1.75	12	8	4	2	330	100	21.5	13	12.4	17.4	2000	
BMNI00060631	6.8	6.56	3.4	0.35	1.5	1.75	16	12	4	2	330	100	21.5	13	16.4	21.4	1000	
BMNI00060632	6.8	6.56	3.4	0.35	1.5	1.75	16	12	4	2	330	100	21.5	13	16.4	21.4	1000	