

BMMN Series



BMMN 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.

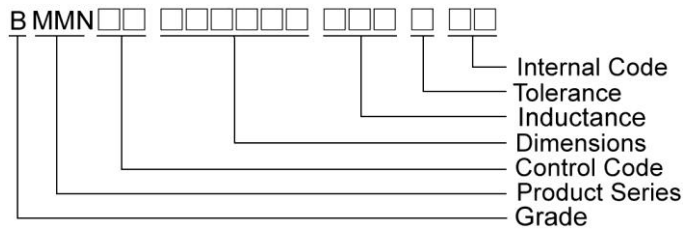
Features

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

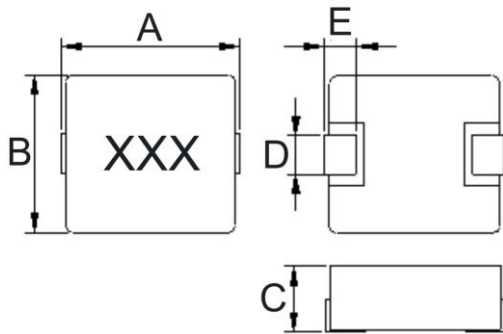
Applications

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

Product Identification



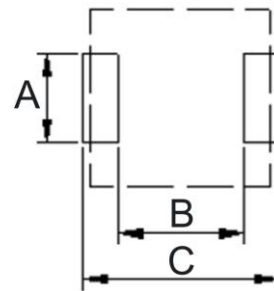
Shape and Dimensions



Dimensions in mm

TYPE	A	B	C	D	E
BMMN00040412	4.45±0.25	4.06±0.25	1.2Max	2.0±0.3	0.76±0.3
BMMN00040420	4.45±0.25	4.06±0.25	2.0Max	2.0±0.3	0.76±0.3
BMMN00050512	5.49±0.25	5.18±0.22	1.2Max	2.0±0.3	1.0±0.3
BMMN00050515	5.49±0.25	5.18±0.22	1.5Max	2.0±0.3	1.0±0.3
BMMN00050518	5.49±0.25	5.18±0.22	1.8Max	2.0±0.3	1.0±0.3
BMMN00050530	5.3Max	4.7±0.2	3.0Max	2.0±0.2	1.0±0.3

Recommended Pattern



Dimensions in mm

TYPE	A	B	C
BMME00040412	2.5	2.2	5.2
BMME00040420	2.5	2.2	5.2
BMMN00050512	2.5	2.2	5.99
BMMN00050515	2.5	2.2	5.99
BMMN00050518	2.5	2.2	5.99
BMMN00050530	2.5	3.0	7.0

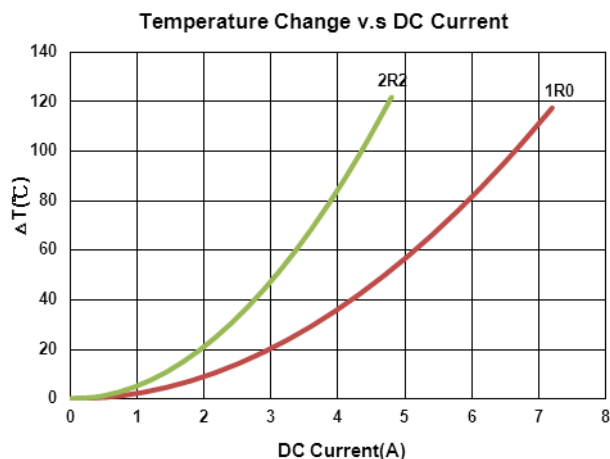
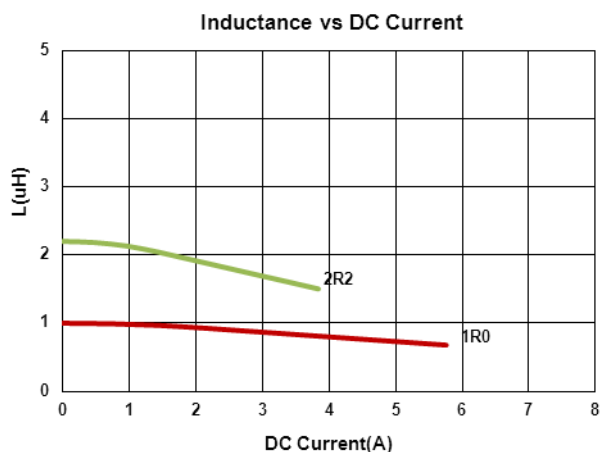
Electrical Characteristics

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (kHz)	RDC(mΩ) Max(Typ.)	Isat (A)Typ.	Irms (A)Typ..	Marking
BMMN000404121R0MX2	1.0	20	100	47(43)	5.2	4.2	1R0
BMMN000404122R2MX2	2.2	20	100	83.5(79.4)	3.5	2.75	2R2

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
- 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



Molding Power Inductors – BMMN Series

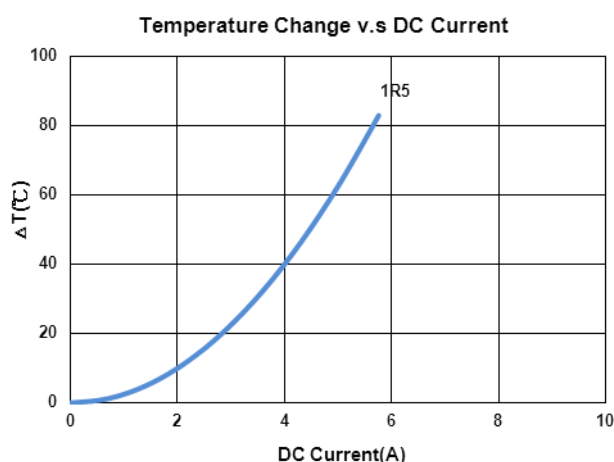
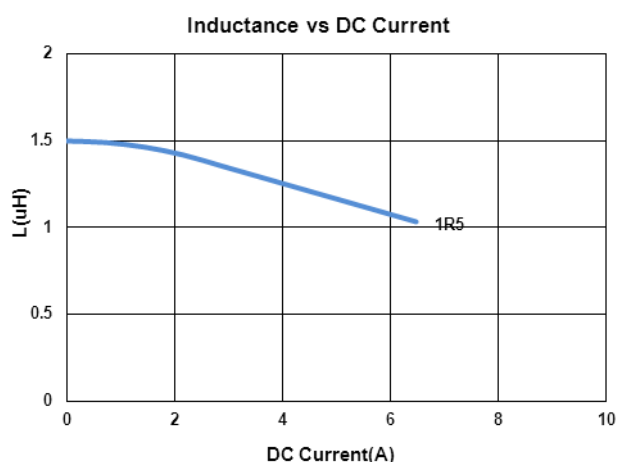
Electrical Characteristics

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (kHz)	RDC(mΩ) Max(Typ.)	Isat (A)Typ.	Irms (A)Typ.	Marking
BMMN000404201R5MX2	1.5	20	100	43(35)	6	4	1R5

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

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- 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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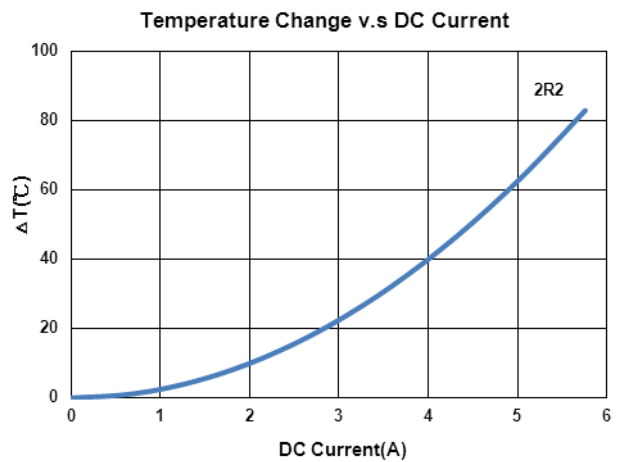
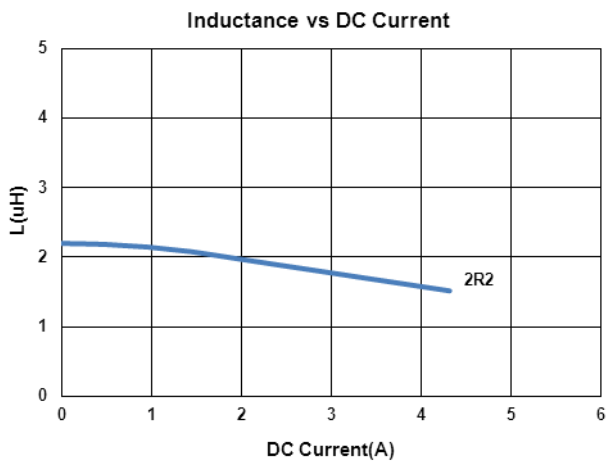
Electrical Characteristics

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (kHz)	RDC(mΩ) Max(Typ.)	Isat (A)Typ.	Irms (A)Typ..	Marking
BMMN000505122R2MX1	2.2	20	100	76(67)	4	3.5	2R2

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- Irms for a 40°C temperature rise from 25°C ambient with current
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 Irms : CHROMA 1810

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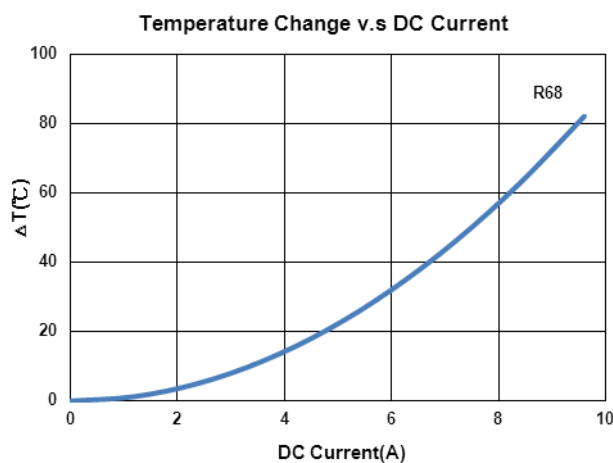
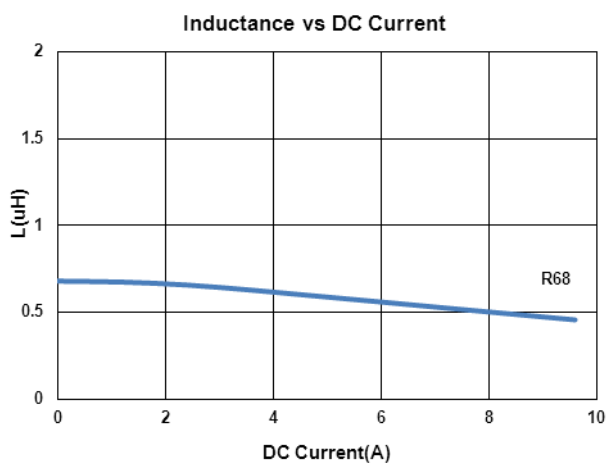
Electrical Characteristics

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (kHz)	RDC(mΩ) Max(Typ.)	Isat(A) Max(Typ.)	Irms(A) Max(Typ.)	Marking
BMMN00050512R68MX2	0.68	20	100	22(19)	7.4(8.5)	6.0(6.7)	R68

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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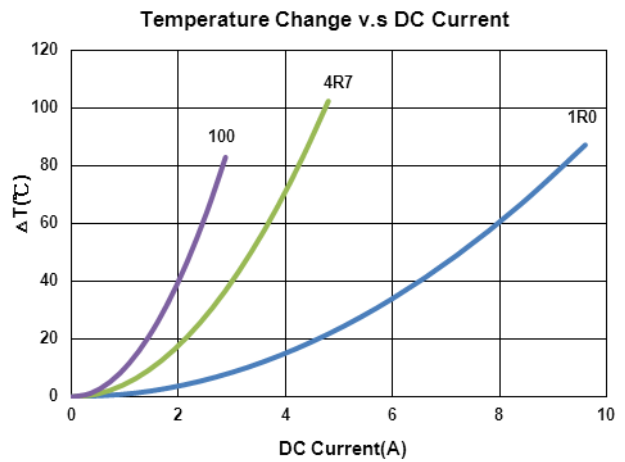
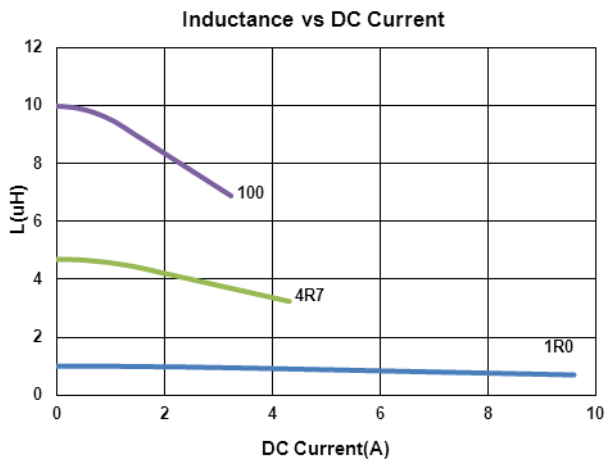
Electrical Characteristics

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (kHz)	RDC(mΩ) Max(Typ.)	Isat (A)Typ.	Irms (A)Typ..	Marking
BMMN000505151R0MX2	1.0	20	100	23(20)	9	6.5	1R0
BMMN000505154R7MX2	4.7	20	100	106(95)	4	3	4R7
BMMN00050515100MX2	10	20	100	170(153)	3	2	100

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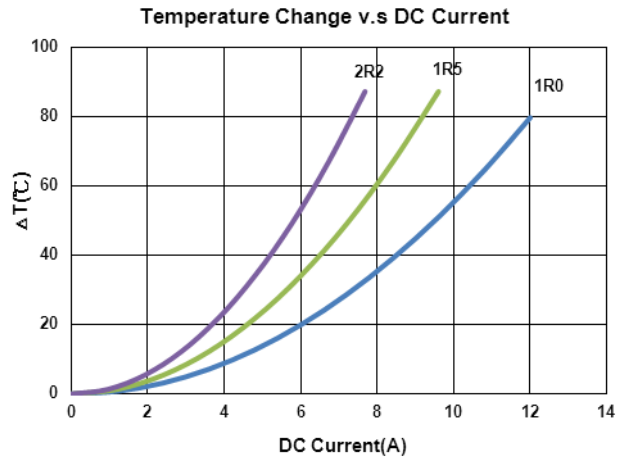
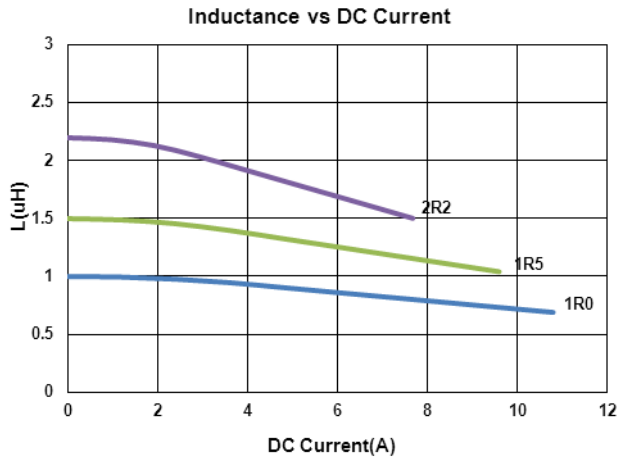
Electrical Characteristics

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (kHz)	RDC(mΩ) Max(Typ.)	Isat(A) Max(Typ.)	Irms(A) Max(Typ.)	Marking
BMMN000505181R0MX1	1.0	20	100	18(15)	8.6(10)	7.5(8.5)	1R0
BMMN000505181R5MX1	1.5	20	100	28(23)	7.2(9)	5.5(6.5)	1R5
BMMN000505182R2MX1	2.2	20	100	35(30)	6(7)	4.7(5.2)	2R2

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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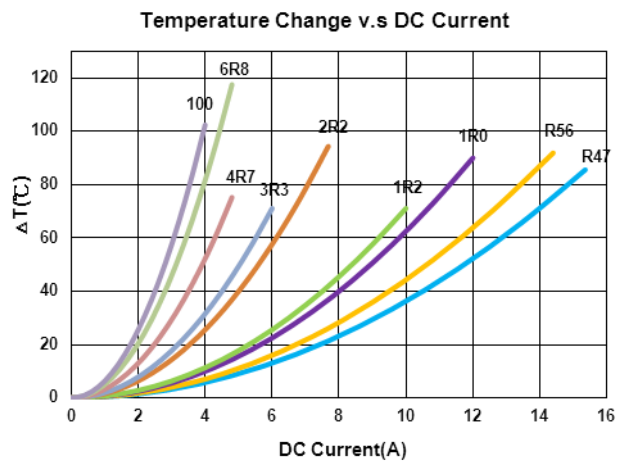
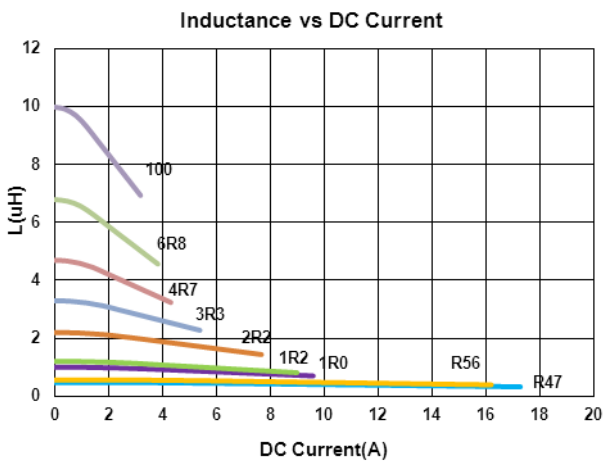
Electrical Characteristics

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (kHz)	RDC(mΩ) Max(Typ.)	Isat (A)Typ.	Irms (A)Typ.	Marking
BMMN00050518R47MX2	0.47	20	100	9(7.7)	15.5	10.5	R47
BMMN00050518R56MX2	0.56	20	100	10(8)	15	9.5	R56
BMMN000505181R0MX2	1.0	20	100	17(15)	9	8	1R0
BMMN000505181R2MX2	1.2	20	100	20(17)	8	7.5	1R2
BMMN000505182R2MX2	2.2	20	100	35(30)	6.5	5	2R2
BMMN000505183R3MX2	3.3	20	100	58(52)	5	4.5	3R3
BMMN000505184R7MX2	4.7	20	100	85(78)	4	3.5	4R7
BMMN000505186R8MX2	6.8	20	100	120(107)	3.4	2.8	6R8
BMMN00050518100MX2	10	20	100	155(140)	3	2.5	100

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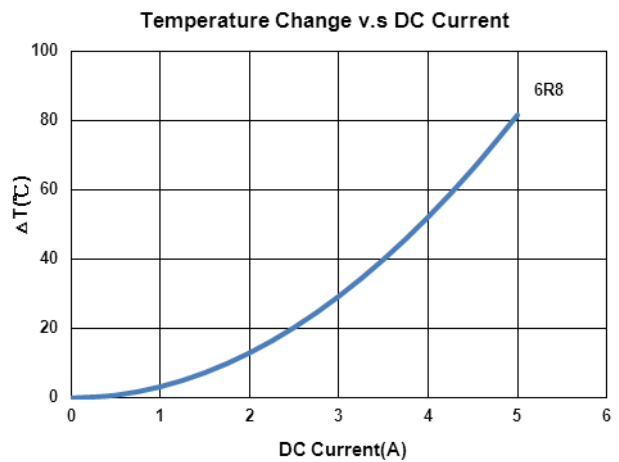
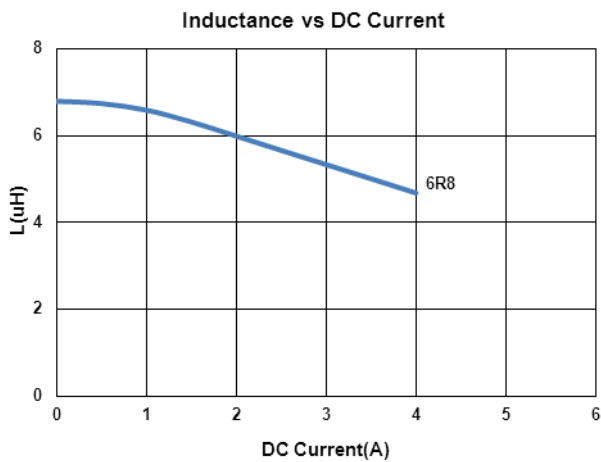
Electrical Characteristics

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (kHz)	RDC(mΩ) Max(Typ.)	Isat(A) Max(Typ.)	Irms(A) Max(Typ.)	Marking
BMMN000505306R8MX1	6.8	20	100	115(100)	3.2(3.7)	3(3.5)	6R8

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

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- I rms for a 40°C temperature rise from 25°C ambient with current
- Measure Equipment :
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 RDC : CHEN HWA 502 or CHEN HWA 46502B
 I rms : CHROMA 1810

Test Instruments : WK3260B Impedance / Material Analyzer



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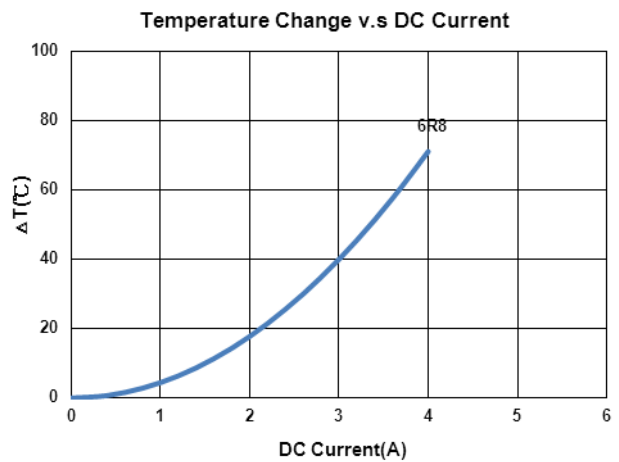
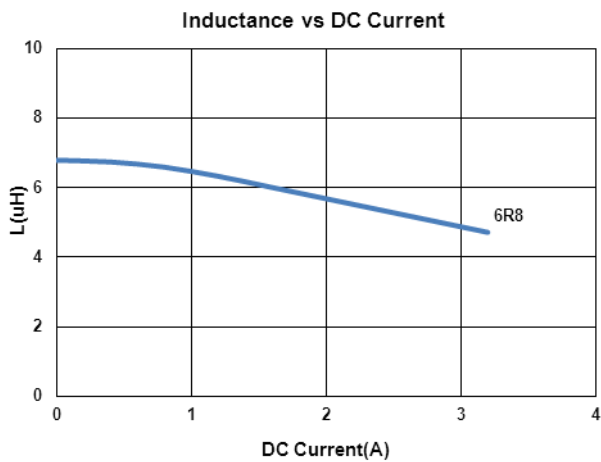
Electrical Characteristics

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (kHz)	RDC(mΩ) Max(Typ.)	Isat (A)Typ.	Irms (A)Typ.	Marking
BMMN000505306R8MX2	6.8	20	100	100(96)	3	3	6R8

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

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- 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
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 I rms : CHROMA 1810

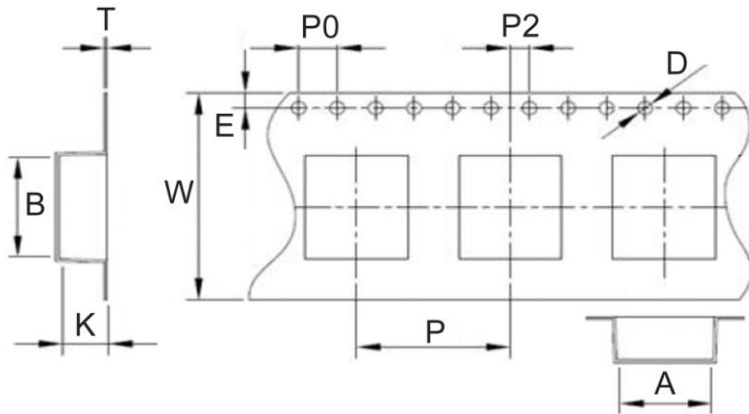
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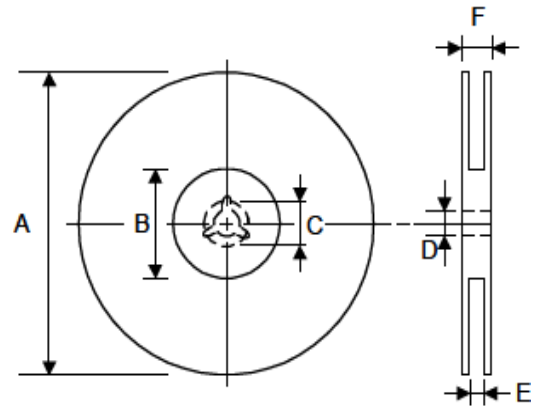
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Packaging Specifications

Tape Dimensions



Reel Dimensions



Dimensions in mm

TYPE	Tape Dimensions										Reel Dimensions						Quantity PCS / REEL
	A	B	K	T	D	E	W	P	P0	P2	A	B	C	D	E	F	
BMMN00040412	4.5	4.9	1.7	0.35	1.5	1.75	12	8	4	2	330	100	21.5	13	12.4	17.4	2000
BMMN00040420	4.5	4.9	2.4	0.35	1.5	1.75	12	8	4	2	330	100	21.5	13	12.4	17.4	2000
BMMN00050512	5.4	5.8	1.4	0.3	1.5	1.75	12	8	4	2	330	100	21.5	13	12.4	17.4	1000
BMMN00050515	5.4	5.8	1.95	0.3	1.5	1.75	12	8	4	2	330	100	21.5	13	12.4	17.4	1000
BMMN00050518	5.4	5.8	1.95	0.3	1.5	1.75	12	8	4	2	330	100	21.5	13	12.4	17.4	1000
BMMN00050530	5.0	5.4	3.2	0.35	1.5	1.75	12	8	4	2	330	100	21.5	13	12.4	17.4	1000