



BMQx series is low profile molding power choke with low RDC and high Q factor, so the efficiency performance is also superior. 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.

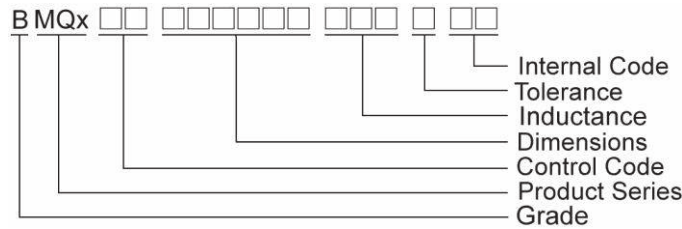
Features

- RoHS, Halogen Free and REACH Compliance
- Low RDC
- High Q
- High Efficiency
- Ultra-low buzz noise

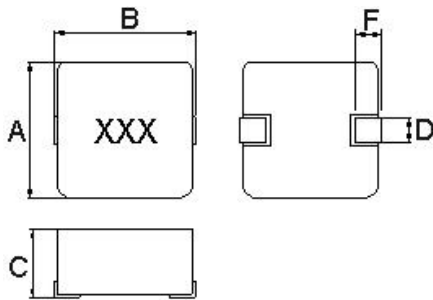
Applications

- Laptops and PCs
- Switches and servers
- Base stations
- DC/DC converters

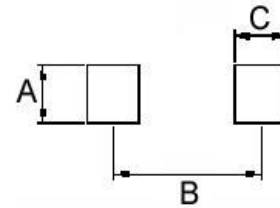
Product Identification



Shape and Dimensions



Recommended Pattern



Dimensions in mm

Dimensions in mm

| TYPE | A | B | C | D | F | TYPE | A | B | C |
|--------------|----------|-----------|---------|----------|----------|--------------|-----|------|------|
| BMQE00040410 | 4.1±0.2 | 4.6±0.2 | 1.0Max | 1.5±0.3 | 1.0±0.3 | BMQE00040410 | 2.5 | 3.7 | 1.5 |
| BMQE00040411 | 4.1±0.2 | 4.6±0.2 | 1.1Max | 1.5±0.3 | 1.0±0.3 | BMQE00040411 | 2.5 | 3.7 | 1.5 |
| BMQA00040420 | 4.2±0.2 | 4.8±0.2 | 1.8±0.2 | 1.5±0.3 | 1.1±0.3 | BMQA00040420 | 2.5 | 3.7 | 1.5 |
| BMQE00050511 | 5.5±0.2 | 5.7±0.2 | 1.1Max | 2.0±0.3 | 1.5±0.3 | BMQE00050511 | 2.5 | 4.1 | 1.9 |
| BMQA00050530 | 5.5±0.25 | 5.85±0.25 | 2.8±0.2 | 2.0±0.25 | 1.5±0.25 | BMQA00050530 | 2.5 | 4.6 | 1.9 |
| BMQE00060611 | 6.6±0.2 | 6.95±0.35 | 1.1Max | 3.0±0.3 | 1.6±0.3 | BMQE00060611 | 3.5 | 6.05 | 2.35 |
| BMQA00060620 | 6.8±0.2 | 6.95±0.35 | 1.8±0.2 | 3.0±0.3 | 1.6±0.3 | BMQA00060620 | 3.5 | 6.05 | 2.35 |
| BMQA00060630 | 6.8±0.2 | 7.3±0.2 | 2.8±0.2 | 3.0±0.3 | 1.6±0.3 | BMQA00060630 | 3.5 | 6.05 | 2.35 |
| BMQA00101040 | 10.2±0.3 | 11.3±0.3 | 3.8±0.2 | 3.0±0.5 | 2.5±0.5 | BMQA00101040 | 4.0 | 9.50 | 3.50 |

Electrical Characteristics

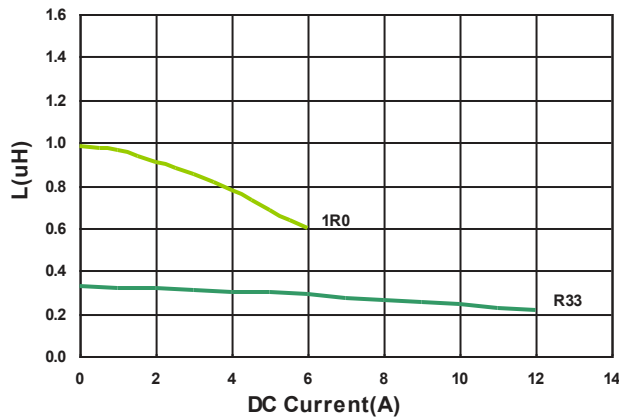
| Part Number | Inductance (uH) | Tolerance (±%) | Test Frequency (kHz) | RDC(mΩ) Max(Typ.) | Isat(A) Max(Typ.) | Irms(A) Max(Typ.) | Marking |
|-------------------|-----------------|----------------|----------------------|-------------------|-------------------|-------------------|---------|
| BMQE0004010R33MAA | 0.33 | 20 | 100 | 14(12) | 9.0(11) | 6.0(7.0) | R33 |
| BMQE00040101R0MAA | 1.0 | 20 | 100 | 43(39) | 4.0(5.0) | 4.0(4.5) | 1R0 |

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

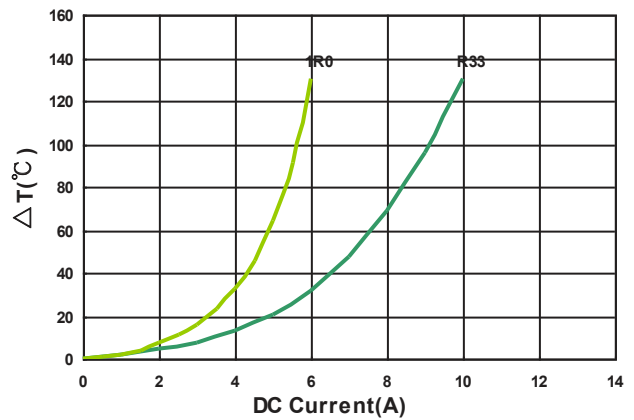
- Operating temperature range - 55°C ~ 125°C(Including self - temperature rise)
- Isat for Inductance drop 30% from its value without current
- Irms for a 40°C temperature rise from 25°C ambient with current
- Absolute maximum voltage 30VDC
- Measure Equipment :
 L : WK 3260B or WK 6500P, 100kHz 0.5V
 RDC : CHEN HWA 502 or CHEN HWA 46502B
 Irms : CHROMA 1810

Test Instruments : WK3260B Impedance / Material Analyzer

Inductance v.s DC Current



Temperature Change v.s DC Current



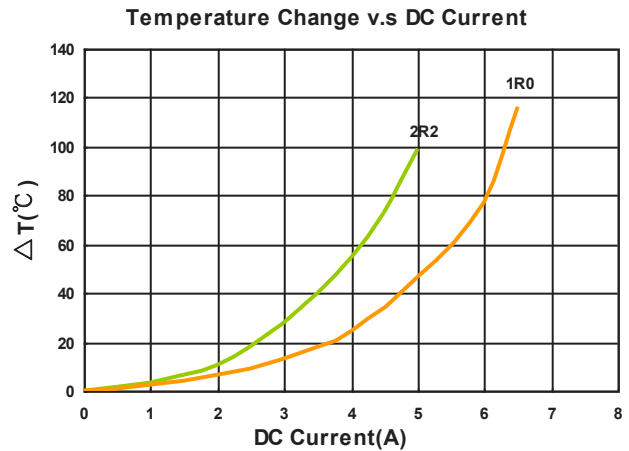
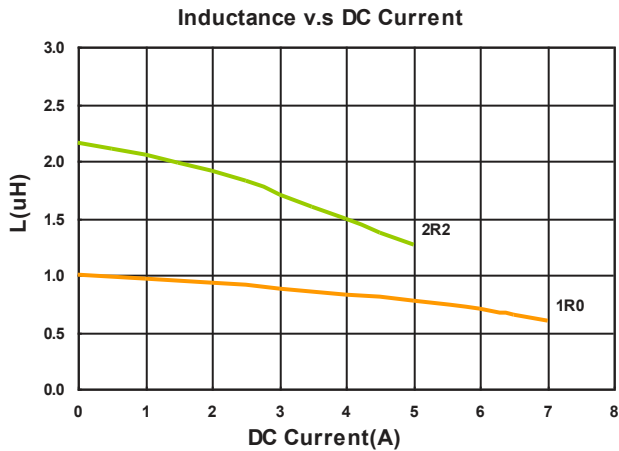
Electrical Characteristics

| Part Number | Inductance (uH) | Tolerance (±%) | Test Frequency (kHz) | RDC(mΩ) Max(Typ.) | Isat(A) Max(Typ.) | Irms(A) Max(Typ.) | Marking |
|--------------------|-----------------|----------------|----------------------|-------------------|-------------------|-------------------|---------|
| BMQE000404111R0MAA | 1.0 | 20 | 100 | 38.5(35) | 5.4(6.0) | 4.3(4.8) | 1R0 |
| BMQE000404112R2MAA | 2.2 | 20 | 100 | 82(75) | 3.5(4.0) | 3.0(3.3) | 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
- Iirms for a 40°C temperature rise from 25°C ambient with current
- Absolute maximum voltage 30VDC
- Measure Equipment :
 L : WK 3260B or WK 6500P, 100kHz 0.5V
 RDC : CHEN HWA 502 or CHEN HWA 46502B
 Iirms : CHROMA 1810

Test Instruments : WK3260B Impedance / Material Analyzer



Electrical Characteristics

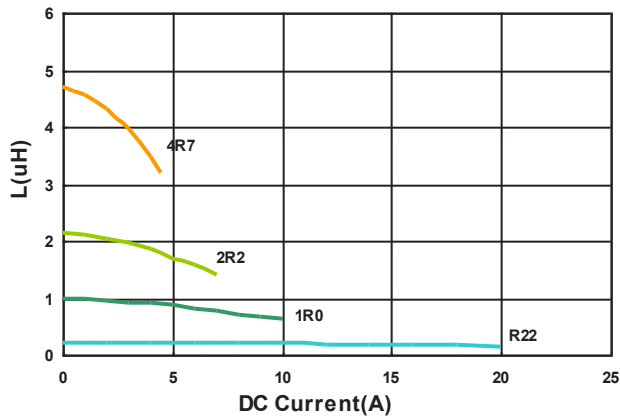
| Part Number | Inductance (uH) | Tolerance (±%) | Test Frequency (kHz) | RDC(mΩ) Max(Typ.) | Isat(A) Max(Typ.) | Irms(A) Max(Typ.) | Marking |
|--------------------|-----------------|----------------|----------------------|-------------------|-------------------|-------------------|---------|
| BMQA00040420R22MA1 | 0.22 | 20 | 100 | 5.5(5.0) | 18(20) | 10(11) | R22 |
| BMQA000404201R0MA1 | 1.0 | 20 | 100 | 17(16) | 8.0(8.5) | 5.5(6.0) | 1R0 |
| BMQA000404202R2MA1 | 2.2 | 20 | 100 | 38.5(35) | 6.0(6.5) | 4.0(4.5) | 2R2 |
| BMQA000404204R7MA1 | 4.7 | 20 | 100 | 85(77) | 4.0(4.5) | 2.5(2.8) | 4R7 |

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

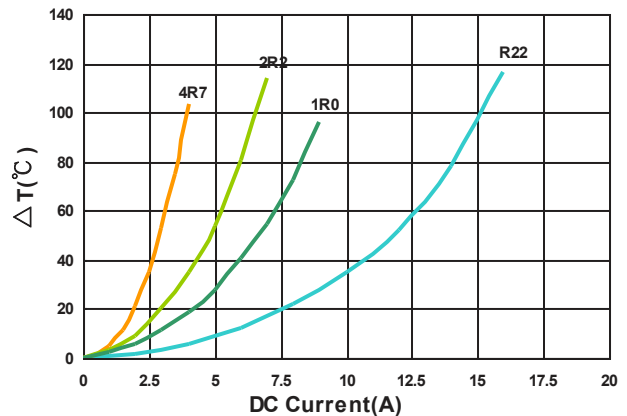
- Operating temperature range - 55°C ~ 125°C(Including self - temperature rise)
- Isat for Inductance drop 30% from its value without current
- I rms for a 40°C temperature rise from 25°C ambient with current
- Absolute maximum voltage 30VDC
- Measure Equipment :
 L : WK 3260B or WK 6500P, 100kHz 0.5V
 RDC : CHEN HWA 502 or CHEN HWA 46502B
 I rms : CHROMA 1810

Test Instruments : WK3260B Impedance / Material Analyzer

Inductance v.s DC Current



Temperature Change v.s DC Current



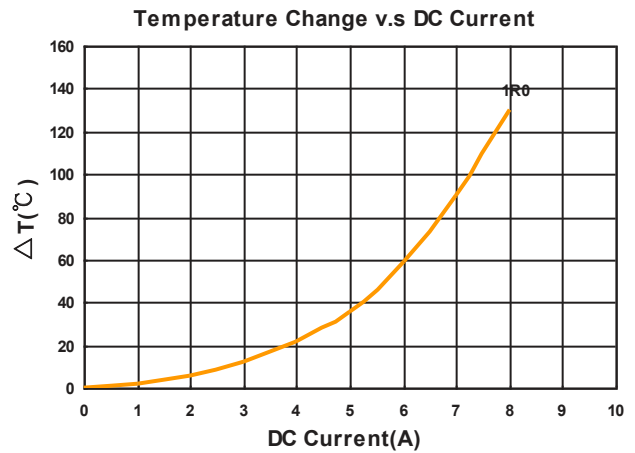
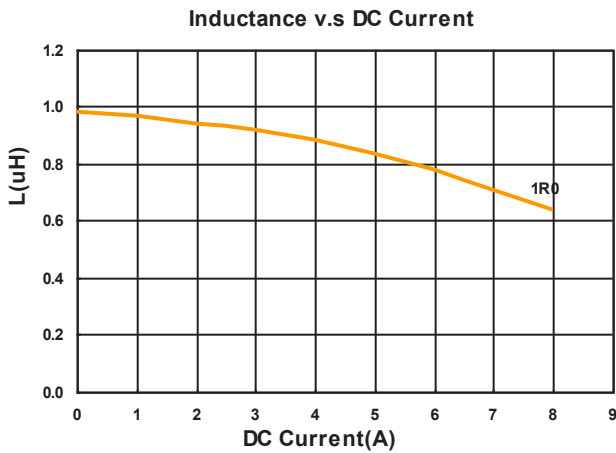
Electrical Characteristics

| Part Number | Inductance (uH) | Tolerance (±%) | Test Frequency (kHz) | RDC(mΩ) Max(Typ.) | Isat(A) Max(Typ.) | Irms(A) Max(Typ.) | Marking |
|--------------------|-----------------|----------------|----------------------|-------------------|-------------------|-------------------|---------|
| BMQE000505111R0MAA | 1.0 | 20 | 100 | 33(30) | 7.0(7.5) | 4.8(5.3) | 1R0 |

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
- Absolute maximum voltage 30VDC
- Measure Equipment :
 L : WK 3260B or WK 6500P, 100kHz 0.5V
 RDC : CHEN HWA 502 or CHEN HWA 46502B
 Irms : CHROMA 1810

Test Instruments : WK3260B Impedance / Material Analyzer



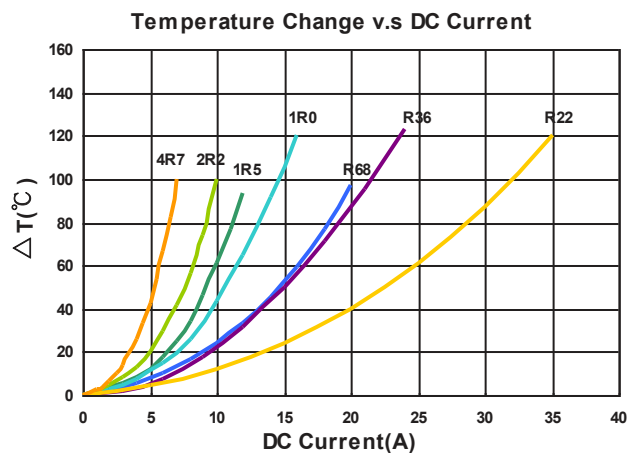
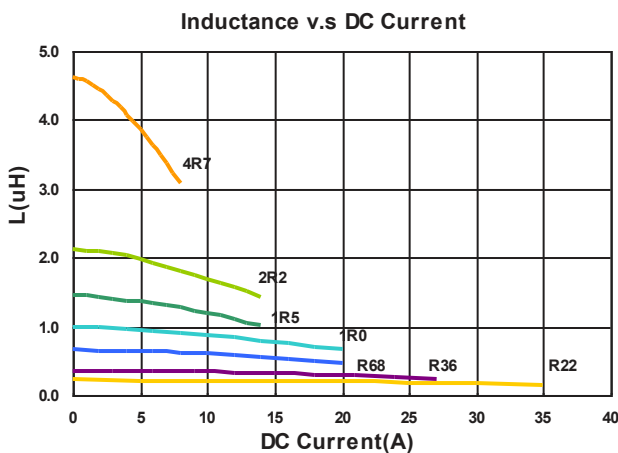
Electrical Characteristics

| Part Number | Inductance (uH) | Tolerance (±%) | Test Frequency (kHz) | RDC(mΩ) Max(Typ.) | Isat(A) Max(Typ.) | Irms(A) Max(Typ.) | Marking |
|--------------------|-----------------|----------------|----------------------|-------------------|-------------------|-------------------|---------|
| BMQA00050530R22MA1 | 0.22 | 20 | 100 | 3.90(3.5) | 28(32) | 18.0(20.0) | R22 |
| BMQA00050530R36MA1 | 0.36 | 20 | 100 | 4.95(4.5) | 23(25) | 12.5(13.5) | R36 |
| BMQA00050530R68MA1 | 0.68 | 20 | 100 | 6.30(5.7) | 17(18) | 11.0(12.0) | R68 |
| BMQA000505301R0MA1 | 1.0 | 20 | 100 | 9.8(8.9) | 16(18) | 9.00(9.50) | 1R0 |
| BMQA000505301R5MA1 | 1.5 | 20 | 100 | 15(13.5) | 12.5(13.5) | 7.50(8.0) | 1R5 |
| BMQA000505302R2MA1 | 2.2 | 20 | 100 | 20(18) | 11.5(12.5) | 6.00(6.5) | 2R2 |
| BMQA000505304R7MA1 | 4.7 | 20 | 100 | 40(37) | 6.5(7.50) | 4.50(5.0) | 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
- Irms for a 40°C temperature rise from 25°C ambient with current
- Absolute maximum voltage 30VDC
- Measure Equipment :
 L : WK 3260B or WK 6500P, 100kHz 0.5V
 RDC : CHEN HWA 502 or CHEN HWA 46502B
 Irms : CHROMA 1810

Test Instruments : WK3260B Impedance / Material Analyzer



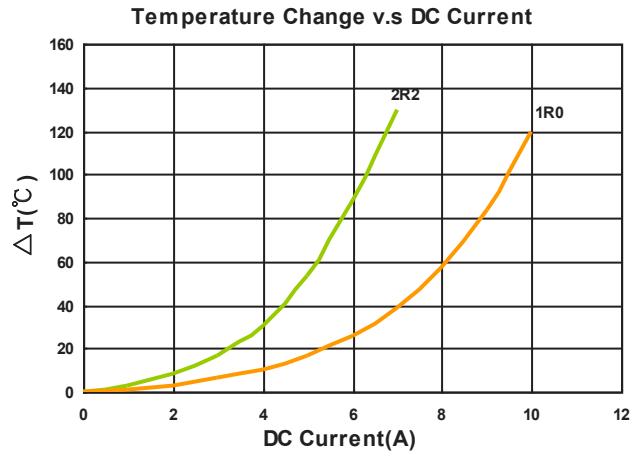
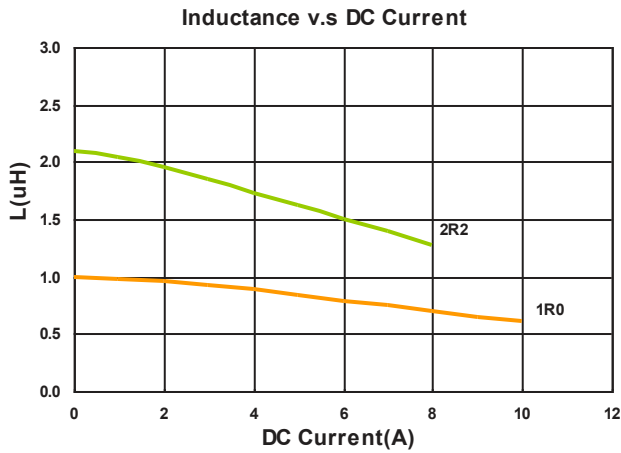
Electrical Characteristics

| Part Number | Inductance (uH) | Tolerance (±%) | Test Frequency (kHz) | RDC(mΩ) Max(Typ.) | Isat(A) Max(Typ.) | Irms(A) Max(Typ.) | Marking |
|--------------------|-----------------|----------------|----------------------|-------------------|-------------------|-------------------|---------|
| BMQE000606111R0MAA | 1.0 | 20 | 100 | 26(24.5) | 7.0(7.8) | 6.8(7.3) | 1R0 |
| BMQE000606112R2MAA | 2.2 | 20 | 100 | 57(52) | 5.0(6.0) | 4.2(4.6) | 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
- Absolute maximum voltage 30VDC
- Measure Equipment :
 L : WK 3260B or WK 6500P, 100kHz 0.5V
 RDC : CHEN HWA 502 or CHEN HWA 46502B
 Irms : CHROMA 1810

Test Instruments : WK3260B Impedance / Material Analyzer



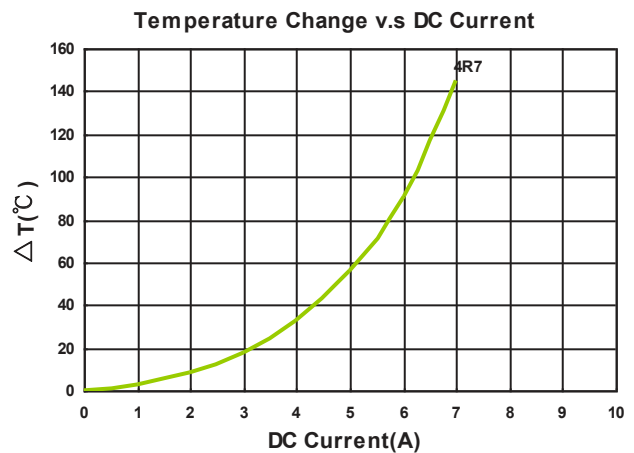
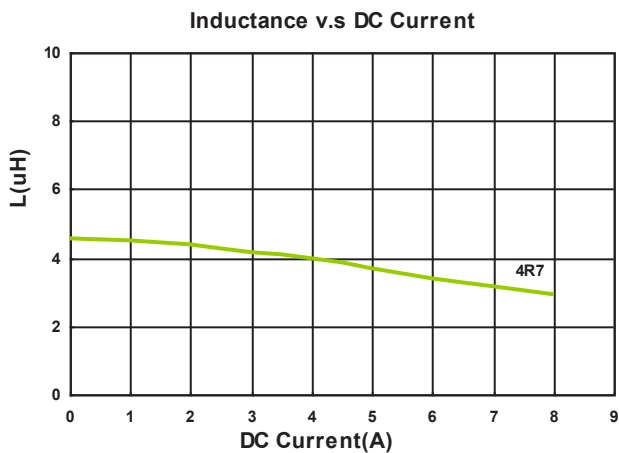
Electrical Characteristics

| Part Number | Inductance (uH) | Tolerance (±%) | Test Frequency (kHz) | RDC(mΩ) Max(Typ.) | Isat(A) Max(Typ.) | Irms(A) Max(Typ.) | Marking |
|--------------------|-----------------|----------------|----------------------|-------------------|-------------------|-------------------|---------|
| BMQA000606204R7MA1 | 4.7 | 20 | 100 | 48(43.7) | 6.0(6.8) | 4.2(4.7) | 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
- Absolute maximum voltage 30VDC
- Measure Equipment :
 L : WK 3260B or WK 6500P, 100kHz 0.5V
 RDC : CHEN HWA 502 or CHEN HWA 46502B
 I rms : CHROMA 1810

Test Instruments : WK3260B Impedance / Material Analyzer



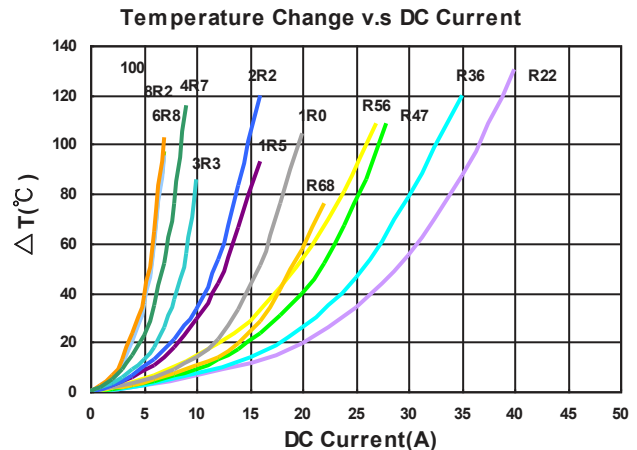
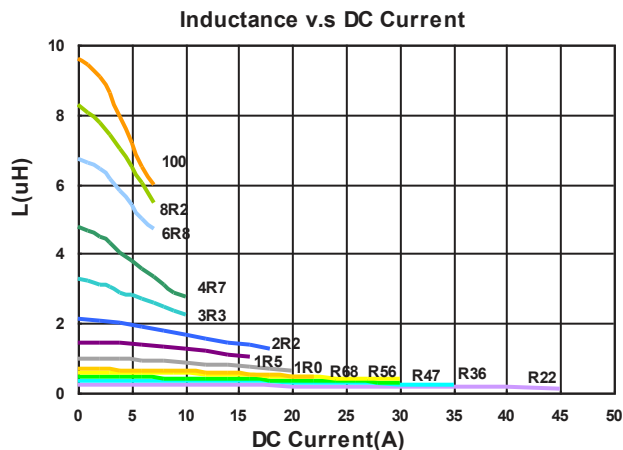
Electrical Characteristics

| Part Number | Inductance (uH) | Tolerance (±%) | Test Frequency (kHz) | RDC(mΩ) Max(Typ.) | Isat(A) Max(Typ.) | Irms(A) Max(Typ.) | Marking |
|--------------------|-----------------|----------------|----------------------|-------------------|-------------------|-------------------|---------|
| BMQA00060630R22MA1 | 0.22 | 20 | 100 | 2.0(1.8) | 35(40) | 25(27) | R22 |
| BMQA00060630R36MA1 | 0.36 | 20 | 100 | 2.6(2.3) | 27(32) | 23(25) | R36 |
| BMQA00060630R47MA1 | 0.47 | 20 | 100 | 3.3(2.9) | 25(27) | 19(20) | R47 |
| BMQA00060630R56MA1 | 0.56 | 20 | 100 | 3.9(3.5) | 23(25) | 17(18) | R56 |
| BMQA00060630R68MA1 | 0.68 | 20 | 100 | 4.2(3.8) | 18(20) | 16(17) | R68 |
| BMQA000606301R0MA1 | 1.0 | 20 | 100 | 5.3(4.8) | 17(19) | 14(15) | 1R0 |
| BMQA000606301R5MA1 | 1.5 | 20 | 100 | 7.7(7.0) | 15(17) | 11(11.5) | 1R5 |
| BMQA000606302R2MA1 | 2.2 | 20 | 100 | 9.4(8.5) | 12(12.5) | 10.5(11) | 2R2 |
| BMQA000606303R3MA1 | 3.3 | 20 | 100 | 15(13.5) | 9.0(9.5) | 8.0(8.5) | 3R3 |
| BMQA000606304R7MA1 | 4.7 | 20 | 100 | 22.0(20) | 6.5(7.0) | 6.0(6.5) | 4R7 |
| BMQA000606306R8MA1 | 6.8 | 20 | 100 | 38.5(35) | 6.0(6.5) | 5.3(5.8) | 6R8 |
| BMQA000606308R2MA1 | 8.2 | 20 | 100 | 47.0(43) | 5.5(6.0) | 5.0(5.4) | 8R2 |
| BMQA00060630100MA1 | 10 | 20 | 100 | 47.0(43) | 5.0(5.5) | 4.8(5.3) | 100 |

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
- Absolute maximum voltage 30VDC
- Measure Equipment :
 L : WK 3260B or WK 6500P, 100kHz 0.5V
 RDC : CHEN HWA 502 or CHEN HWA 46502B
 I rms : CHROMA 1810

Test Instruments : WK3260B Impedance / Material Analyzer



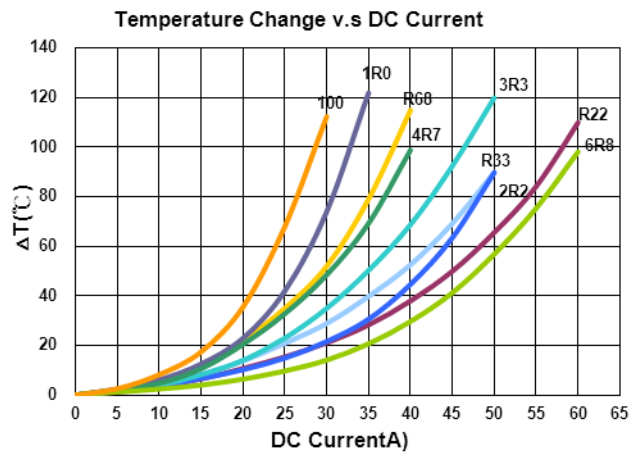
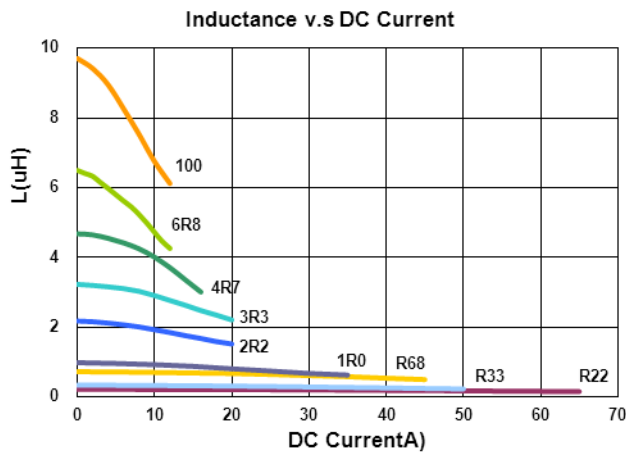
Electrical Characteristics

| Part Number | Inductance (uH) | Tolerance (±%) | Test Frequency (kHz) | RDC(mΩ) Max(Typ.) | Isat(A) Max(Typ.) | Irms(A) Max(Typ.) | Marking |
|--------------------|-----------------|----------------|----------------------|-------------------|-------------------|-------------------|---------|
| BMQA00101040R22MD1 | 0.22 | 20 | 100 | 0.54(0.45) | 55(60) | 40(42) | R22 |
| BMQA00101040R33MD1 | 0.33 | 20 | 100 | 0.68(0.62) | 45(50) | 32(35) | R33 |
| BMQA00101040R68MD1 | 0.68 | 20 | 100 | 1.5(1.3) | 32(37) | 25(27) | R68 |
| BMQA001010401R0MD1 | 1.0 | 20 | 100 | 2.4(2.2) | 26(30) | 23(25) | 1R0 |
| BMQA001010402R2MA1 | 2.2 | 20 | 100 | 4.7(4.3) | 17(20) | 15(15.6) | 2R2 |
| BMQA001010403R3MA1 | 3.3 | 20 | 100 | 7.9(7.2) | 16(18) | 12(12.5) | 3R3 |
| BMQA001010404R7MA1 | 4.7 | 20 | 100 | 10.5(9.5) | 13(14) | 10.5(11) | 4R7 |
| BMQA001010406R8MA1 | 6.8 | 20 | 100 | 16.5(15) | 9.0(10) | 8.5(9.0) | 6R8 |
| BMQA00101040100MA1 | 10 | 20 | 100 | 24(22) | 8.5(9.0) | 8.0(8.5) | 100 |

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

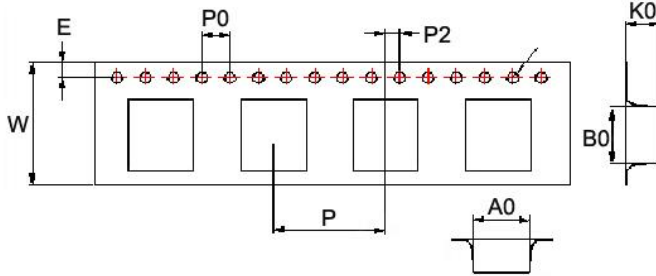
- Operating temperature range - 55°C ~ 125°C(Including self - temperature rise)
- Isat for Inductance drop 30% from its value without current
- I rms for a 40°C temperature rise from 25°C ambient with current
- Absolute maximum voltage 30VDC
- Measure Equipment :
 - L : WK 3260B or WK 6500P, 100kHz 0.5V
 - RDC : CHEN HWA 502 or CHEN HWA 46502B
 - I rms : CHROMA 1810

Test Instruments : WK3260B Impedance / Material Analyzer

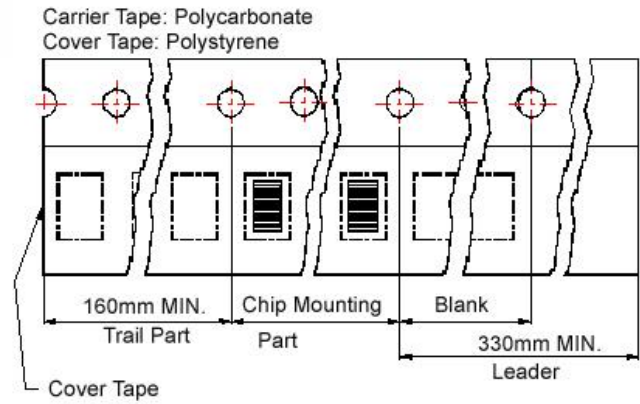


Packaging Specifications

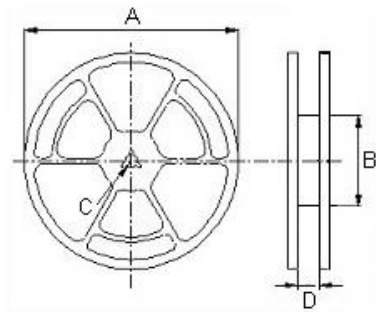
Tape Dimensions



Tape Material



Reel Dimensions



Dimensions in mm

| TYPE | Tape Dimensions | | | | | | | | | Reel Dimensions | | | | Quantity |
|--------------|-----------------|------|------|------|------|----|----|----|----|-----------------|-----|----|------|------------|
| | A0 | B0 | K0 | D | E | W | P | P0 | P2 | A | B | C | D | PCS / REEL |
| BMQE00040410 | 4.4 | 4.9 | 1.4 | 1.55 | 1.75 | 12 | 8 | 4 | 2 | 330 | 100 | 13 | 13.4 | 2000 |
| BMQE00040411 | 4.4 | 4.9 | 1.5 | 1.55 | 1.75 | 12 | 8 | 4 | 2 | 330 | 100 | 13 | 13.4 | 2000 |
| BMQA00040420 | 4.5 | 5.1 | 2.4 | 1.55 | 1.75 | 12 | 8 | 4 | 2 | 330 | 100 | 13 | 13.4 | 2000 |
| BMQE00050511 | 5.9 | 6.2 | 1.5 | 1.55 | 1.75 | 16 | 12 | 4 | 2 | 330 | 100 | 13 | 16 | 2000 |
| BMQA00050530 | 5.9 | 6.25 | 3.4 | 1.55 | 1.75 | 16 | 12 | 4 | 2 | 330 | 100 | 13 | 16 | 1000 |
| BMQE00060611 | 6.9 | 7.4 | 1.5 | 1.55 | 1.75 | 16 | 12 | 4 | 2 | 330 | 100 | 13 | 16 | 1000 |
| BMQA00060620 | 7.05 | 7.6 | 2.7 | 1.55 | 1.75 | 16 | 12 | 4 | 2 | 330 | 100 | 13 | 16 | 1000 |
| BMQA00060630 | 7.0 | 7.6 | 3.4 | 1.55 | 1.75 | 16 | 12 | 4 | 2 | 330 | 100 | 13 | 16 | 1000 |
| BMQA00101040 | 10.6 | 11.7 | 4.25 | 1.55 | 1.75 | 24 | 16 | 4 | 2 | 330 | 100 | 13 | 24.4 | 500 |

For More Information:

[Americas - prodinfo_power_americas@yageo.com](mailto:Americas-prodinfo_power_americas@yageo.com) | [Europe - prodinfo_power_emea@yageo.com](mailto:Europe-prodinfo_power_emea@yageo.com) | [Asia - prodinfo_power_asia@yageo.com](mailto:Asia-prodinfo_power_asia@yageo.com)

Performance warranty of products offered on this data sheet is limited to the parameters specified. Data is subject to change without notice. Other brand and product names mentioned herein may be trademarks or registered trademarks of their respective owners. © Copyright, 2022. Pulse Electronics, Inc. All rights reserved.