BWVC Series



BWVC series, an automatic assembly constructed power inductor, is shielded with magnetic resin and suitable for portable DC-DC converter application.

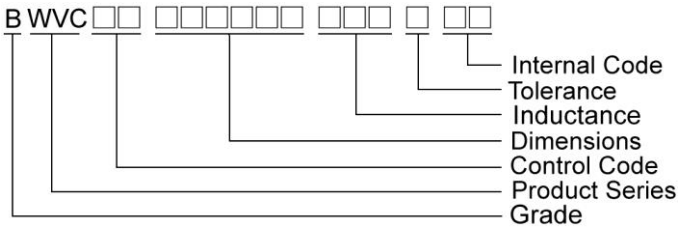
Features

- RoHS, Halogen Free and REACH Compliance
- Shielded with magnetic resin
- Various package size and wide inductance range
- Optimize electrical characteristics by using different ferrite core figures

Applications

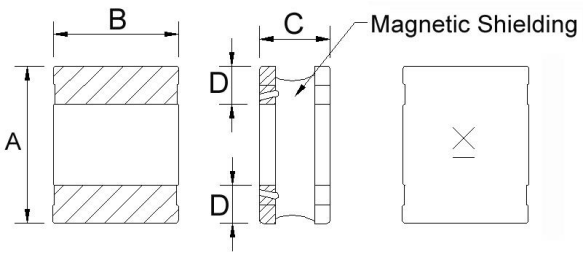
- Smartphones, tablets and wearable devices
- DSC, camcorders
- AP Routers
- STBs
- LCD TVs, monitors and panels
- Game consoles
- DC/DC converters

Product Identification

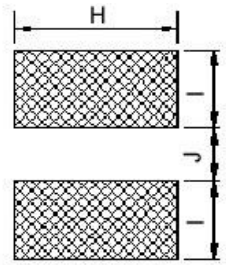


Shape and Dimensions

Figure 1



Recommended Pattern



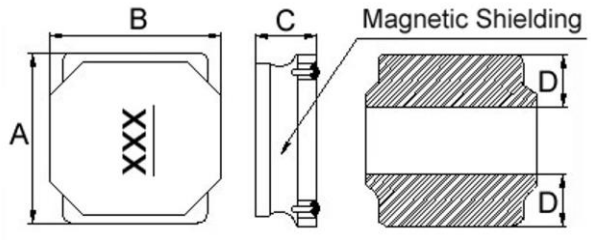
Dimensions in mm

TYPE	FIG	A	B	C	D	H	I	J
BWVC00201610	1	2.0±0.25	1.6±0.25	1.00 Max	0.6	1.8	0.80	0.8
BWVC00201612	1	2.0±0.25	1.6±0.25	1.2±0.05	0.6	1.8	0.80	0.8
BWVC00252012	1	2.5±0.25	2.0±0.25	1.2±0.05	0.8	2.2	0.85	0.8

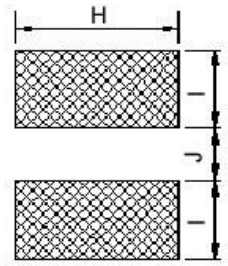
Downloaded from Arrow.com.

Shape and Dimensions

Figure 2



Recommended Pattern

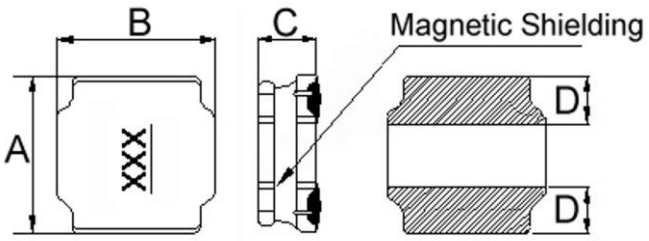


Dimensions in mm

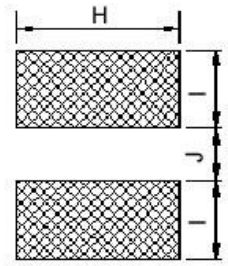
TYPE	FIG	A	B	C	D	H	I	J
BWVC00404018	2	4.0±0.20	4.0±0.20	1.9 Max	1.3	3.7	1.5	1.2

Shape and Dimensions

Figure 3



Recommended Pattern



Dimensions in mm

TYPE	FIG	A	B	C	D	H	I	J
BWVC00505040	3	5.0±0.20	5.0±0.20	4.0±0.2	1.5	4.2	1.6	2.0
BWVC00606028	3	6.0±0.20	6.0±0.20	2.8±0.2	1.9±0.3	5.7	1.8	2.6
BWVC00606045	3	6.0±0.20	6.0±0.20	$4.5^{+0.2}_{-0.30}$	1.8±0.3	5.7	2.0	2.4

Pulse a YAGEO company
CHILISIN ELECTRONICS CORP.
Downloaded from Arrow.com.

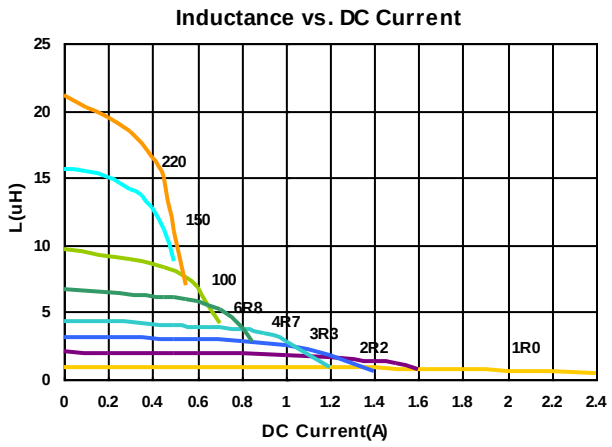
Electrical Characteristics

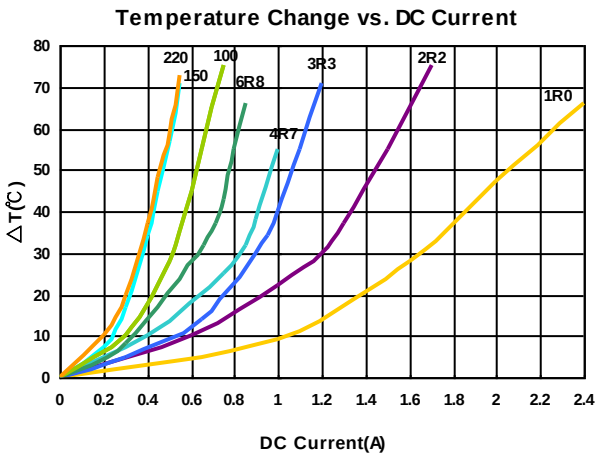
Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (MHz)	RDC (Ω) ±30%	Isat (A) Typ. (Max)	Irms (A) Typ. (Max)	Marking
BWVC00201610R24□00	0.24	20, 30	1	0.026	3.20(2.80)	3.00(2.70)	M
BWVC002016101R0□00	1.0	20, 30	1	0.095	1.86(1.67)	1.86(1.67)	B
BWVC002016101R5□00	1.5	20, 30	1	0.140	1.64(1.47)	1.65(1.48)	C
BWVC002016102R2□00	2.2	20, 30	1	0.190	1.30(1.17)	1.30(1.17)	D
BWVC002016103R3□00	3.3	20, 30	1	0.295	0.96(0.86)	0.98(0.88)	E
BWVC002016104R7□00	4.7	20, 30	1	0.360	0.84(0.75)	0.90(0.81)	F
BWVC002016106R8□00	6.8	20, 30	1	0.640	0.66(0.59)	0.70(0.63)	G
BWVC00201610100□00	10	20, 30	1	1.000	0.54(0.48)	0.56(0.50)	H
BWVC00201610150□00	15	20, 30	1	1.500	0.39(0.35)	0.42(0.37)	K
BWVC00201610180□00	18	20, 30	1	1.600	0.39(0.35)	0.41(0.36)	J
BWVC00201610220□00	22	20, 30	1	1.700	0.38(0.34)	0.40(0.36)	I

Note: When ordering, please specify tolerance code. Tolerance: M=±20% , T =±30%

- Operating temperature range－55℃～125℃(Including self - temperature rise)
- Isat for Inductance drop 30% from its value without current
- Irms for a 40℃ temperature rise from 25℃ ambient with current
- Measure Equipment：
- L：HP4285A+HP42841A, 1MHz 200mV
  RDC：DIGITAL MILLINHM METER CHROMA 16502, or equivalent
  Isat & Irms：Agilent HP4284A

Test Instruments：HP4284A Material/Impedance Analyzer





Please be sure to request approval specifications that provide further details of the products. Kindly note that the content of these specifications are subject to change or may be discontinued without prior notice. This product may not be designed/used in medical or high risk applications without Chilisin approval. Please contact our sales department before ordering.

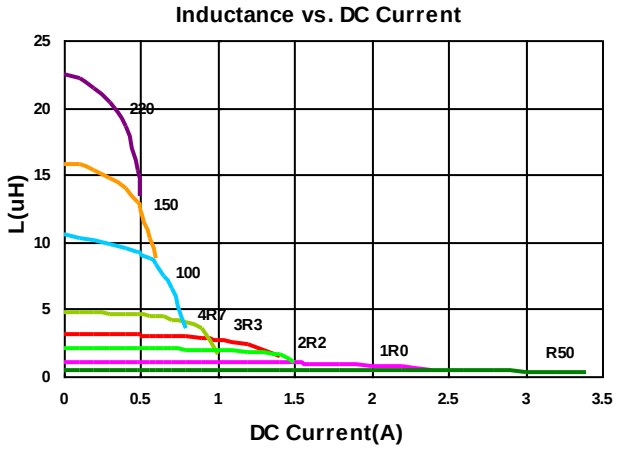
Electrical Characteristics

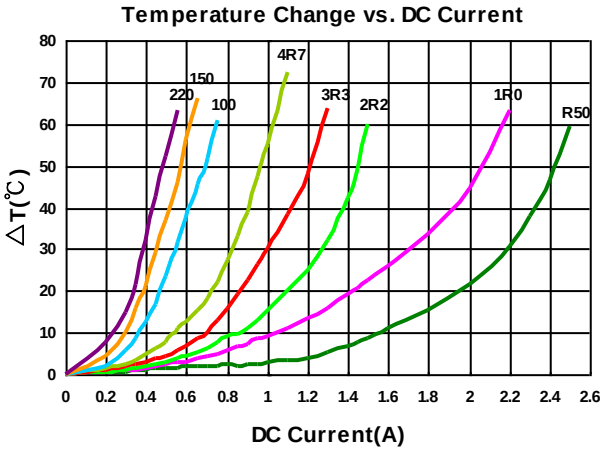
Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (MHz)	RDC (Ω) ±30%	Isat (A) Typ. (Max)	Irms (A) Typ. (Max)	Marking
BWVC00201612R50□00	0.5	20, 30	1	0.051	2.60(2.34)	2.30(2.07)	B
BWVC002016121R0□00	1.0	20, 30	1	0.083	1.90(1.71)	1.80(1.62)	C
BWVC002016122R2□00	2.2	20, 30	1	0.159	1.36(1.22)	1.34(1.20)	E
BWVC002016123R3□00	3.3	20, 30	1	0.220	1.10(0.99)	1.06(0.95)	F
BWVC002016124R7□00	4.7	20, 30	1	0.330	0.92(0.82)	0.90(0.81)	G
BWVC00201612100□00	10	20, 30	1	0.580	0.62(0.55)	0.58(0.52)	I
BWVC00201612150□00	15	20, 30	1	0.900	0.48(0.43)	0.45(0.40)	J
BWVC00201612220□00	22	20, 30	1	1.400	0.40(0.36)	0.40(0.36)	K

Note: When ordering, please specify tolerance code. Tolerance: M=±20% , T =±30%

- Operating temperature range－55℃～125℃(Including self - temperature rise)
- Isat for Inductance drop 30% from its value without current
- Irms for a 40℃ temperature rise from 25℃ ambient with current
- Measure Equipment：
- L：HP4285A+HP42841A, 1MHz 200mV
  RDC：DIGITAL MILLINHM METER CHROMA 16502, or equivalent
  Isat & Irms：Agilent HP4284A

Test Instruments：HP4284A Material/Impedance Analyzer





Please be sure to request approval specifications that provide further details of the products. Kindly note that the content of these specifications are subject to change or may be discontinued without prior notice. This product may not be designed/used in medical or high risk applications without Chilisin approval. Please contact our sales department before ordering.

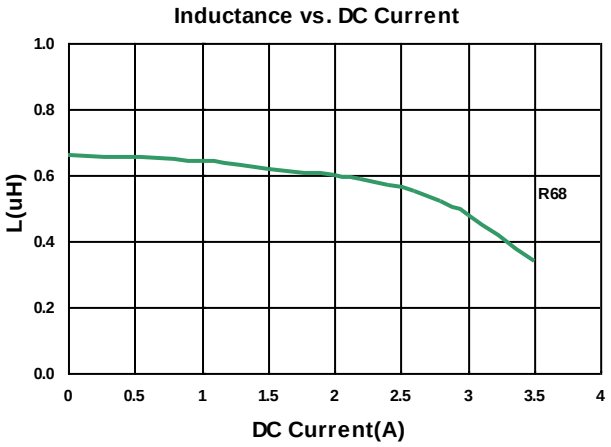
Electrical Characteristics

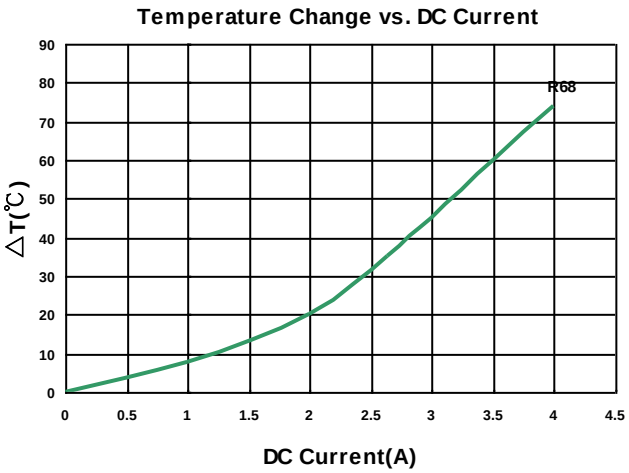
Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (MHz)	RDC (Ω) ±30%	Isat (A) Typ. (Max)	Irms (A) Typ. (Max)	Marking
BWVC00252012-R68□00	0.68	20, 30	1	0.035	2.80(2.52)	2.60(2.34)	N

Note: When ordering, please specify tolerance code. Tolerance: M=±20% , T =±30%

- Operating temperature range－55℃～125℃(Including self - temperature rise)
- Isat for Inductance drop 30% from its value without current
- Irms for a 40℃ temperature rise from 25℃ ambient with current
- Measure Equipment：
- L：HP4285A+HP42841A, 1MHz 200mV
  RDC：DIGITAL MILLINHM METER CHROMA 16502, or equivalent
  Isat & Irms：Agilent HP4284A

Test Instruments：HP4284A Material/Impedance Analyzer





Please be sure to request approval specifications that provide further details of the products. Kindly note that the content of these specifications are subject to change or may be discontinued without prior notice. This product may not be designed/used in medical or high risk applications without Chilisin approval. Please contact our sales department before ordering.

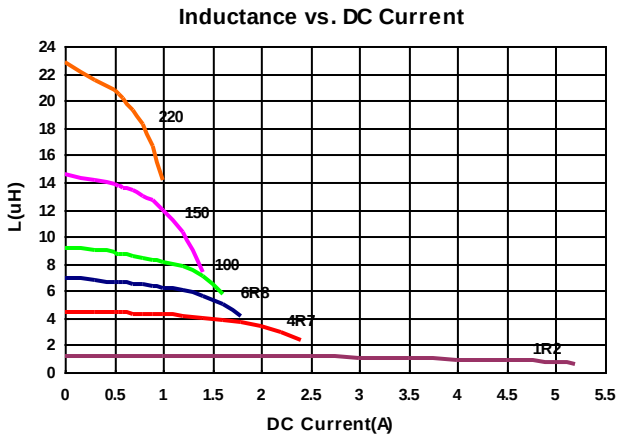
Electrical Characteristics

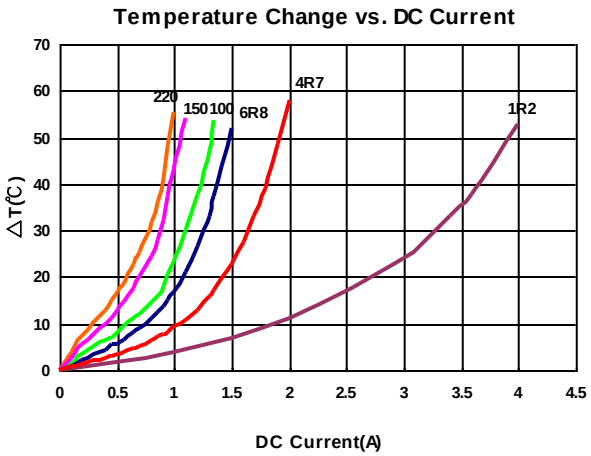
Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (kHz)	RDC (Ω) ±30%	Isat (A) Typ. (Max)	Irms (A) Typ. (Max)	Marking
BWVC004040181R2□00	1.2	20, 30	100	0.027	3.70(3.30)	3.60(3.20)	1R2
BWVC004040184R7□00	4.7	20, 30	100	0.077	2.00(1.80)	1.80(1.62)	4R7
BWVC004040186R8□00	6.8	20, 30	100	0.105	1.50(1.35)	1.35(1.21)	6R8
BWVC00404018100□00	10	20, 30	100	0.160	1.40(1.26)	1.20(1.08)	100
BWVC00404018150□00	15	20, 30	100	0.245	1.05(0.94)	0.95(0.85)	150
BWVC00404018220□00	22	20, 30	100	0.335	0.90(0.81)	0.88(0.79)	220

Note: When ordering, please specify tolerance code. Tolerance: M=±20% , T =±30%

- Operating temperature range－55℃～125℃(Including self - temperature rise)
- Isat for Inductance drop 30% from its value without current
- Irms for a 40℃ temperature rise from 25℃ ambient with current
- Measure Equipment：
- L：HP4285A+ HP42841A, 100kHz 1V
  RDC：DIGITAL MILLINHM METER CHROMA 16502, or equivalent
  Isat & Irms：Agilent HP4284A

Test Instruments：HP4284A Material/Impedance Analyzer





Please be sure to request approval specifications that provide further details of the products. Kindly note that the content of these specifications are subject to change or may be discontinued without prior notice. This product may not be designed/used in medical or high risk applications without Chilisin approval. Please contact our sales department before ordering.

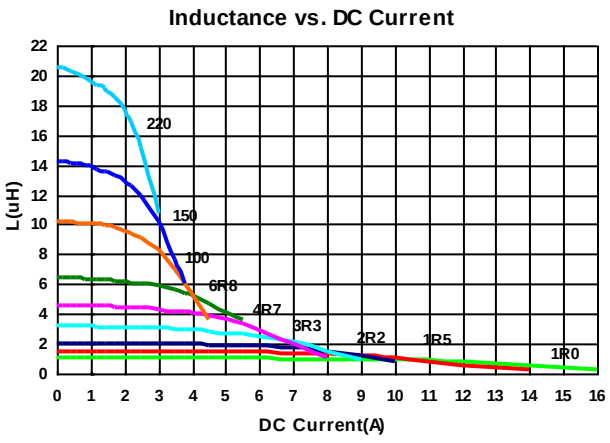
Electrical Characteristics

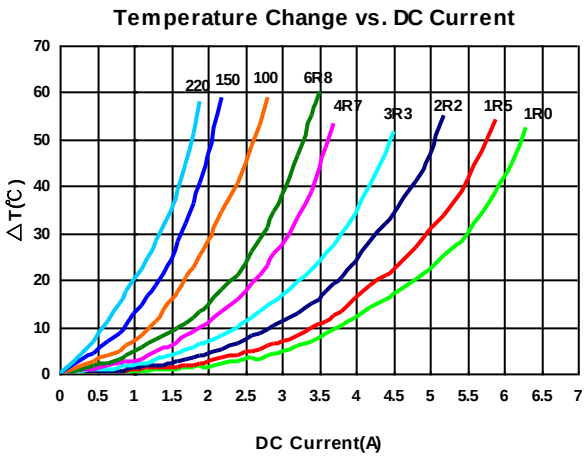
Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (kHz)	RDC (Ω) ±30%	Isat (A) Typ. (Max)	Irms (A) Typ. (Max)	Marking
BWVC005050401R0□00	1.0	20, 30	100	0.012	8.8(7.92)	5.9(5.31)	1R0
BWVC005050401R5□00	1.5	20,30	100	0.014	7.9(7.11)	5.4(4.86)	1R5
BWVC005050402R2□00	2.2	20, 30	100	0.020	6.8(6.12)	4.5(4.05)	2R2
BWVC005050402R7□00	2.7	20, 30	100	0.026	6.0(5.40)	4.2(3.70)	2R7
BWVC005050403R3□00	3.3	20, 30	100	0.026	5.3(4.77)	4.2(3.78)	3R3
BWVC005050404R7□00	4.7	20, 30	100	0.032	4.4(3.96)	3.2(2.88)	4R7
BWVC005050406R8□00	6.8	20, 30	100	0.050	3.8(3.42)	3.0(2.70)	6R8
BWVC005050408R2□00	8.2	20, 30	100	0.065	3.3(2.90)	2.4(2.10)	8R2
BWVC00505040100□00	10	20, 30	100	0.070	3.0(2.70)	2.3(2.07)	100
BWVC00505040150□00	15	20, 30	100	0.115	2.4(2.16)	1.8(1.62)	150
BWVC00505040220□00	22	20, 30	100	0.160	2.0(1.80)	1.6(1.44)	220
BWVC00505040151□00	150	20, 30	100	1.180	0.74(0.66)	0.58(0.52)	151
BWVC00505040181□00	180	20, 30	100	1.250	0.67(0.60)	0.54(0.48)	181
BWVC00505040221□00	220	20, 30	100	1.450	0.65(0.58)	0.50(0.45)	221

Note: When ordering, please specify tolerance code. Tolerance: M=±20% , T =±30%

- Operating temperature range－55℃～125℃(Including self - temperature rise)
- Isat for Inductance drop 30% from its value without current
- Irms for a 40℃ temperature rise from 25℃ ambient with current
- Measure Equipment：
- L：HP4285A+ HP42841A, 100kHz 1V
  RDC：DIGITAL MILLINHM METER CHROMA 16502, or equivalent
  Isat & Irms：Agilent HP4284A

Test Instruments：HP4284A Material/Impedance Analyzer





Please be sure to request approval specifications that provide further details of the products. Kindly note that the content of these specifications are subject to change or may be discontinued without prior notice. This product may not be designed/used in medical or high risk applications without Chilisin approval. Please contact our sales department before ordering.

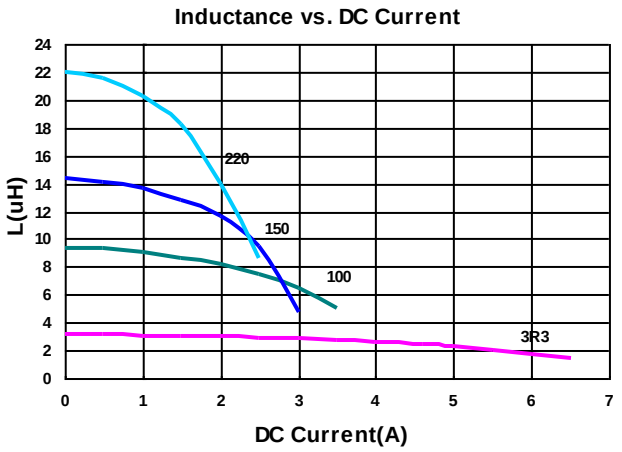
Electrical Characteristics

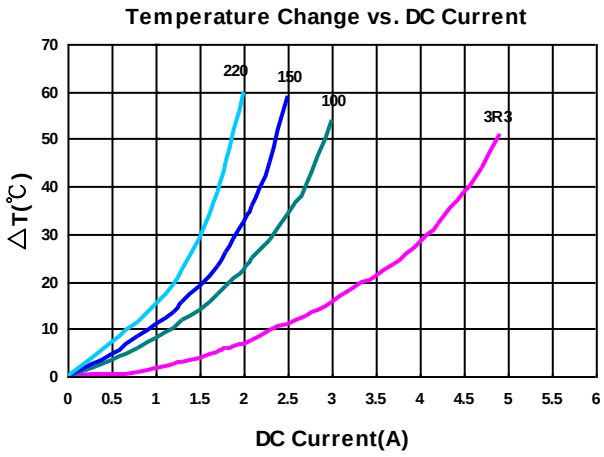
Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (kHz)	RDC (Ω) ±30%	Isat (A) Typ. (Max)	Irms (A) Typ. (Max)	Marking
BWVC006060283R3□00	3.3	20, 30	100	0.027	4.5(4.05)	4.0(3.60)	3R3
BWVC00606028100□00	10	20, 30	100	0.065	2.6(2.34)	2.5(2.25)	100
BWVC00606028150□00	15	20, 30	100	0.093	2.1(1.89)	2.0(1.80)	150
BWVC00606028220□00	22	20, 30	100	0.135	1.7(1.53)	1.65(1.48)	220

Note: When ordering, please specify tolerance code. Tolerance: M=±20% , T=±30%

- Operating temperature range－55℃～125℃(Including self - temperature rise)
- Isat for Inductance drop 30% from its value without current
- Irms for a 40℃ temperature rise from 25℃ ambient with current
- Measure Equipment：
- L：HP4285A+ HP42841A, 100kHz 1V
  RDC：DIGITAL MILLINHM METER CHROMA 16502, or equivalent
  Isat & Irms：Agilent HP4284A

Test Instruments：HP4284A Material/Impedance Analyzer





Please be sure to request approval specifications that provide further details of the products. Kindly note that the content of these specifications are subject to change or may be discontinued without prior notice. This product may not be designed/used in medical or high risk applications without Chilisin approval. Please contact our sales department before ordering.

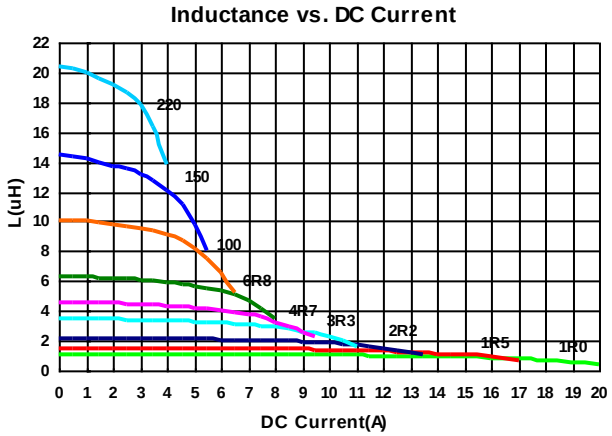
Electrical Characteristics

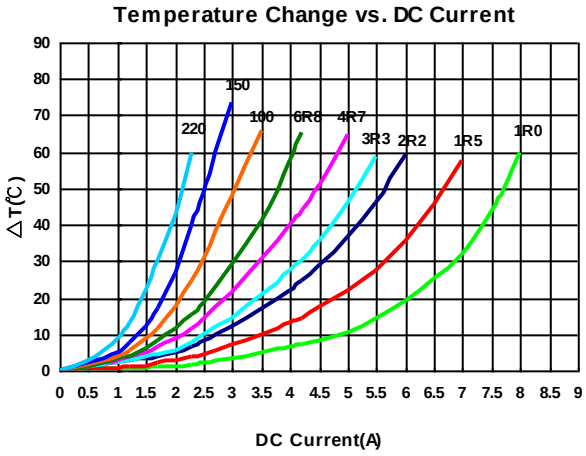
Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (kHz)	RDC (Ω) ±30%	Isat (A) Typ. (Max)	Irms (A) Typ. (Max)	Marking
BWVC006060451R0□00	1.0	20,30	100	0.010	13(11.7)	7.3(6.57)	1R0
BWVC006060451R5□00	1.5	20,30	100	0.012	12(10.8)	6.6(5.94)	1R5
BWVC006060452R2□00	2.2	20, 30	100	0.018	9.5(8.55)	5.2(4.68)	2R2
BWVC006060453R3□00	3.3	20, 30	100	0.022	7.8(7.02)	4.4(3.96)	3R3
BWVC006060454R7□00	4.7	20, 30	100	0.03	6.8(6.12)	4.0(3.60)	4R7
BWVC006060456R8□00	6.8	20, 30	100	0.042	5.7(5.13)	3.3(2.97)	6R8
BWVC00606045100□00	10	20, 30	100	0.06	4.6(4.14)	2.6(2.34)	100
BWVC00606045150□00	15	20, 30	100	0.09	3.8(3.42)	2.2(1.98)	150
BWVC00606045220□00	22	20, 30	100	0.13	3.3(2.97)	1.9(1.71)	220
BWVC00606045151□00	150	20, 30	100	0.97	0.95(0.85)	0.65(0.58)	151

Note: When ordering, please specify tolerance code. Tolerance: M=±20% , T =±30%

- Operating temperature range－55℃～125℃(Including self - temperature rise)
- Isat for Inductance drop 30% from its value without current
- Irms for a 40℃ temperature rise from 25℃ ambient with current
- Measure Equipment：
- L：HP4285A+ HP42841A, 100kHz 1V
  RDC：DIGITAL MILLINHM METER CHROMA 16502, or equivalent
  Isat & Irms：Agilent HP4284A

Test Instruments：HP4284A Material/Impedance Analyzer





Please be sure to request approval specifications that provide further details of the products. Kindly note that the content of these specifications are subject to change or may be discontinued without prior notice. This product may not be designed/used in medical or high risk applications without Chilisin approval. Please contact our sales department before ordering.

Pulse a YAGEO company

CHILISIN ELECTRONICS CORP.

Packaging Specifications

Tape Dimensions

Figure 1

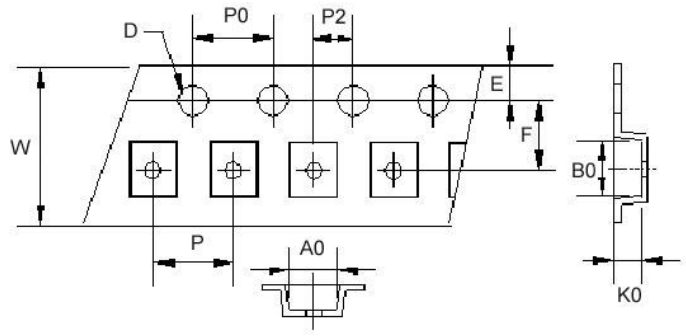
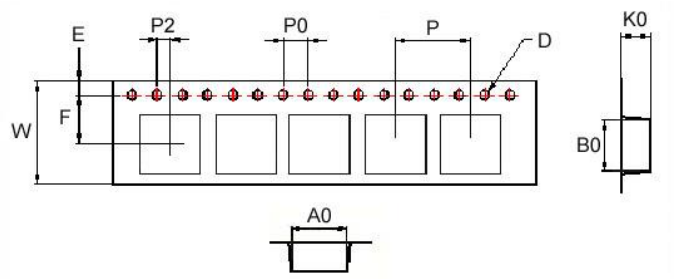


Figure 2



Reel Dimensions

Figure 1

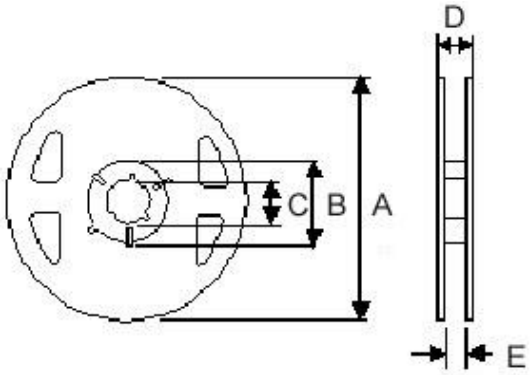
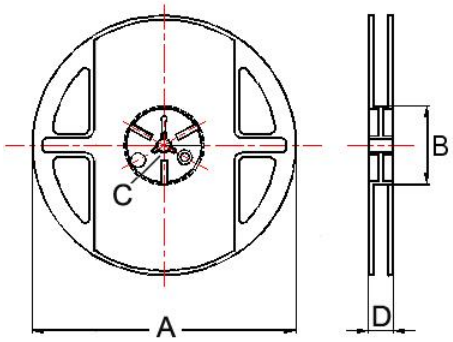


Figure 2



Dimensions in mm

TYPE	Fig	Tape Dimensions										Reel Dimensions					Quantity
		A0	B0	K0	D	E	F	W	P	P0	P2	A	B	C	D	E	PCS / Reel
BWVC00201610	1	1.90	2.20	1.15	1.55	1.75	3.5	8	4	4	2	180	60	13	14.4	8.4	2000
BWVC00201612	1	1.90	2.20	1.30	1.55	1.75	3.5	8	4	4	2	180	60	13	14.4	8.4	2000
BWVC00252012	1	2.40	2.70	1.35	1.55	1.75	3.5	8	4	4	2	180	60	13	14.4	8.4	2000
BWVC00404018	2	4.25	4.25	2.10	1.55	1.75	5.5	12	8	4	2	178	60	13	13.2	-	800
BWVC00505040	2	5.20	5.20	4.20	1.55	1.75	5.5	12	8	4	2	330	100	13	13.4	-	1500
BWVC00606028	2	6.25	6.25	3.00	1.55	1.75	7.5	16	12	4	2	330	100	13	16.0	-	1500
BWVC00606045	2	6.20	6.20	4.65	1.55	1.75	5.5	12	8	4	2	330	100	13	13.4	-	1000