

SMD Wire Wound Ferrite Chip Inductors

BWNL Series



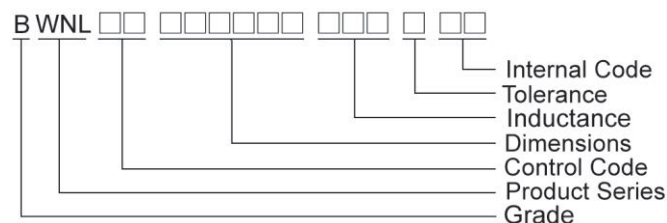
Features

- RoHS compliant
- Strong solderability by reflow soldering and soldering iron
- Highly accurate dimensions
- Can be mounted automatically
- Terminals are highly resistant to external forces
- Highly resistant to mechanical shocks and pressure
- Highly reliable in environments of sudden temperature change and humidity
- Superior Q characteristics and the broadest L selections among peers

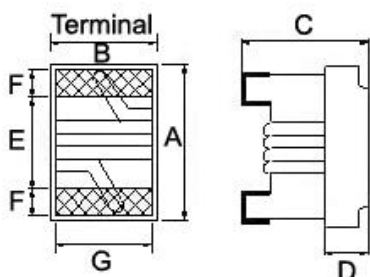
Applications

- Microtelevisions
- Liquid crystal televisions
- Video cameras
- Portable VCRs
- Car radios
- Car stereos
- Thin tape radios
- Television tuners
- Mobile telephones
- Radio and other electronic devices

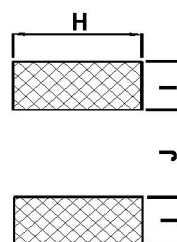
Product Identification



Shape and Dimensions



Recommended Pattern



Dimensions in mm

TYPE	A Max	B Max	C Max	D	E	F	G	H	I	J
BWNL00241715	2.40	1.72	1.52	0.70	1.02	0.50	1.27	1.78	1.02	0.76
BWNL00292822	2.92	2.79	2.20	0.70	1.50	0.50	2.00	2.54	1.02	1.27
BWNL00292522	2.92	2.50	2.20	0.70	1.50	0.50	2.00	2.54	1.02	1.27

BWNL00292822: at 5N0~R10,

BWNL00292522: at R12~101

Electrical Characteristics

Part Number	Inductance (μ H)	Tolerance ($\pm$ %)	Q Min	Test Frequency (MHz)	SRF (MHz) Min	RDC (Ω) Max	IDC (mA)	Color
BWNL00241715R12□00	0.12	10 / 5	25	25.2	500	0.20	600	White
BWNL00241715R15□00	0.15	10 / 5	25	25.2	450	0.25	600	Black
BWNL00241715R18□00	0.18	10 / 5	25	25.2	410	0.30	570	Brown
BWNL00241715R22□00	0.22	10 / 5	25	25.2	350	0.35	550	Red
BWNL00241715R27□00	0.27	10 / 5	25	25.2	280	0.40	530	Orange
BWNL00241715R33□00	0.33	10 / 5	25	25.2	235	0.45	510	Yellow
BWNL00241715R39□00	0.39	10 / 5	25	25.2	210	0.50	490	Green
BWNL00241715R47□00	0.47	10 / 5	25	25.2	170	0.55	470	Blue
BWNL00241715R56□00	0.56	10 / 5	25	25.2	150	0.60	450	Violet
BWNL00241715R68□00	0.68	10 / 5	25	25.2	140	0.70	420	Gray
BWNL00241715R82□00	0.82	10 / 5	25	25.2	130	0.75	400	White
BWNL002417151R0□00	1.00	10 / 5	15	7.96	115	0.80	350	Black
BWNL002417151R2□00	1.20	10 / 5	15	7.96	95	0.90	325	Brown
BWNL002417151R5□00	1.50	10 / 5	15	7.96	85	1.05	300	Red
BWNL002417151R8□00	1.80	10 / 5	15	7.96	80	1.20	270	Orange
BWNL002417152R2□00	2.20	10 / 5	15	7.96	75	1.40	250	Yellow
BWNL002417152R7□00	2.70	10 / 5	15	7.96	70	1.60	230	Green
BWNL002417153R3□00	3.30	10 / 5	15	7.96	60	1.80	210	Blue
BWNL002417153R9□00	3.90	10 / 5	15	7.96	55	2.00	190	Violet
BWNL002417154R7□00	4.70	10 / 5	15	7.96	45	2.40	170	Gray
BWNL002417155R6□00	5.60	10 / 5	15	7.96	40	2.70	150	White
BWNL002417156R8□00	6.80	10 / 5	15	7.96	36	3.20	140	Black
BWNL002417158R2□00	8.20	10 / 5	15	7.96	33	3.60	120	Brown
BWNL00241715100□00	10.0	10 / 5	15	2.52	30	4.50	110	Red
BWNL00241715120□00	12.0	10 / 5	15	2.52	25	5.70	105	Orange
BWNL00241715150□00	15.0	10 / 5	15	2.52	23	6.50	90	Yellow
BWNL00241715180□00	18.0	10 / 5	15	2.52	21	7.00	85	Green
BWNL00241715220□00	22.0	10 / 5	15	2.52	20	8.00	78	Blue
BWNL00241715270□00	27.0	10 / 5	15	2.52	18	9.00	75	Violet
BWNL00241715330□00	33.0	10 / 5	15	2.52	17	10.0	70	Gray

Note: When ordering, please specify tolerance code. Tolerance : J=±5% , K=±10%

- Operating temperature range - 25°C ~ 105°C(Including self - temperature rise)
- IDC for Inductance drop 10% from its value with current
- Measure Equipment :
L & Q : Agilent E4991A+Agilent HP16197A
SRF : Agilent E4991A
RDC : HP4338B or Chroma 16502

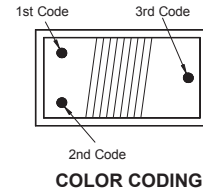
Electrical Characteristics

Part Number	Inductance (μ H)	Tolerance ($\pm$ %)	Q Min	Test Frequency (MHz)	SRF (MHz) Min	RDC (Ω) Max	IDC (mA)	Color Coding		
								1 ST	2 ND	3 RD
BWNL002928225N0□00	0.005	10	10	100	3000	0.25	2000	Black	Green	Black
BWNL0029282210N□00	0.010	10	10	100	2500	0.25	1800	Brown	Black	Black
BWNL0029282212N□00	0.012	10	15	100	2400	0.26	1700	Brown	Red	Black
BWNL0029282215N□00	0.015	10	15	100	2300	0.28	1600	Brown	Green	Black
BWNL0029282218N□00	0.018	10	15	100	2200	0.30	1550	Brown	Gray	Black
BWNL0029282222N□00	0.022	10 / 5	20	100	2100	0.35	1500	Red	Red	Black
BWNL0029282227N□00	0.027	10 / 5	20	100	2000	0.40	1450	Red	Violet	Black
BWNL0029282233N□00	0.033	10 / 5	30	100	1600	0.42	1400	Orange	Orange	Black
BWNL0029282239N□00	0.039	10 / 5	35	100	1500	0.45	1350	Orange	White	Black
BWNL0029282247N□00	0.047	10 / 5	35	100	1400	0.50	1300	Yellow	Violet	Black
BWNL0029282256N□00	0.056	10 / 5	35	100	1300	0.60	1250	Green	Blue	Black
BWNL0029282268N□00	0.068	10 / 5	35	100	1200	0.65	1240	Blue	Gray	Black
BWNL0029282282N□00	0.082	10 / 5	35	100	1100	0.75	1230	Gray	Red	Black
BWNL00292822R10□00	0.10	10 / 5	35	100	800	0.80	1220	Brown	Black	Brown
BWNL00292522R12□00	0.12	10 / 5	30	25.2	700	0.30	900	Brown	Red	Brown
BWNL00292522R15□00	0.15	10 / 5	30	25.2	550	0.35	900	Brown	Green	Brown
BWNL00292522R18□00	0.18	10 / 5	30	25.2	500	0.40	850	Brown	Gray	Brown
BWNL00292522R22□00	0.22	10 / 5	30	25.2	450	0.50	840	Red	Red	Brown
BWNL00292522R27□00	0.27	10 / 5	30	25.2	425	0.55	830	Red	Violet	Brown
BWNL00292522R33□00	0.33	10 / 5	30	25.2	400	0.60	820	Orange	Orange	Brown
BWNL00292522R39□00	0.39	10 / 5	30	25.2	375	0.65	810	Orange	White	Brown
BWNL00292522R47□00	0.47	10 / 5	30	25.2	350	0.68	800	Yellow	Violet	Brown
BWNL00292522R56□00	0.56	10 / 5	30	25.2	325	0.75	800	Green	Blue	Brown
BWNL00292522R68□00	0.68	10 / 5	30	25.2	300	0.85	800	Blue	Gray	Brown
BWNL00292522R82□00	0.82	10 / 5	30	25.2	260	1.0	800	Gray	Red	Brown
BWNL002925221R0□00	1.0	10 / 5	25	7.96	245	1.1	800	Brown	Black	Red
BWNL002925221R2□00	1.2	10 / 5	25	7.96	230	1.2	790	Brown	Red	Red
BWNL002925221R5□00	1.5	10 / 5	25	7.96	182	1.3	750	Brown	Green	Red
BWNL002925221R8□00	1.8	10 / 5	25	7.96	135	1.45	750	Brown	Gray	Red
BWNL002925222R2□00	2.2	10 / 5	25	7.96	105	1.55	750	Red	Red	Red
BWNL002925222R7□00	2.7	10 / 5	25	7.96	70	1.7	740	Red	Violet	Red
BWNL002925223R3□00	3.3	10 / 5	25	7.96	55	1.9	730	Orange	Orange	Red

BWNL002925223R9□00	3.9	10 / 5	25	7.96	48	2.1	700	Orange	White	Red
BWNL002925224R7□00	4.7	10 / 5	25	7.96	43	2.3	650	Yellow	Violet	Red

Note: When ordering, please specify tolerance code. Tolerance : J=±5% , K=±10%

- Operating temperature range - 25°C ~ 105°C(Including self - temperature rise)
- IDC for Inductance drop 10% from its value with current
- Measure Equipment :
L & Q : HP4291A/HP4285A
SRF : HP4291A/HP8753D
RDC : HP4338B or Chroma 16502

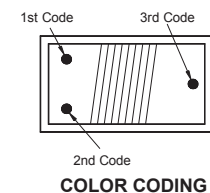


Electrical Characteristics

Part Number	Inductance (uH)	Tolerance (±%)	Q Min	Test Frequency (MHz)	SRF (MHz) Min	RDC (Ω) Max	IDC (mA)	Color Coding		
								1 ST	2 ND	3 RD
BWNL002925225R6□00	5.6	10 / 5	20	7.96	42	2.5	640	Green	Blue	Red
BWNL002925226R8□00	6.8	10 / 5	20	7.96	39	2.7	630	Blue	Gray	Red
BWNL002925228R2□00	8.2	10 / 5	20	7.96	36	3.05	600	Gray	Red	Red
BWNL00292522100□00	10	10 / 5	15	2.52	33	3.5	600	Brown	Black	Orange
BWNL00292522120□00	12	10 / 5	15	2.52	30	3.8	550	Brown	Red	Orange
BWNL00292522150□00	15	10 / 5	15	2.52	26	4.4	430	Brown	Green	Orange
BWNL00292522180□00	18	10 / 5	15	2.52	24	4.8	400	Brown	Gray	Orange
BWNL00292522220□00	22	10 / 5	15	2.52	22	5.5	400	Red	Red	Orange
BWNL00292522270□00	27	10 / 5	15	2.52	21	6.3	360	Red	Violet	Orange
BWNL00292522330□00	33	10 / 5	15	2.52	20	7.1	350	Orange	Orange	Orange
BWNL00292522390□00	39	10 / 5	10	2.52	18	9.5	330	Orange	White	Orange
BWNL00292522470□00	47	10 / 5	10	2.52	17	11.1	300	Yellow	Violet	Orange
BWNL00292522560□00	56	10 / 5	10	2.52	16	12.1	270	Green	Blue	Orange
BWNL00292522680□00	68	10 / 5	10	2.52	15	16.6	250	Blue	Gray	Orange
BWNL00292522820□00	82	10 / 5	10	2.52	13	19	200	Gray	Red	Orange
BWNL00292522101□00	100	10 / 5	8	0.796	12	21	120	Brown	Black	Yellow

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- Measure Equipment :
L & Q : HP4291A/HP4285A
SRF : HP4291A/HP8753D
RDC : HP4338B or Chroma 16502



SMD Wire Wound Ferrite Chip Inductors

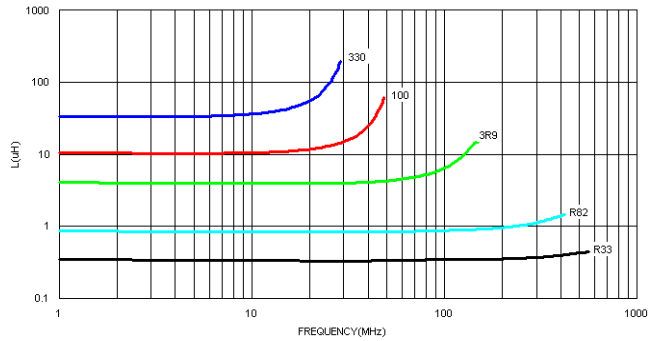
BWNL Series



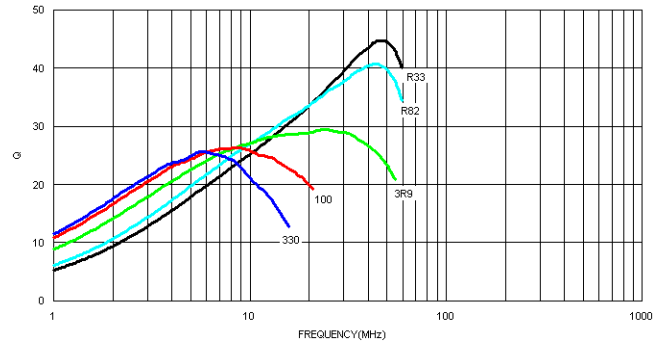
Test Instruments : Agilent E4991A Material/Impedance Analyzer

BWNL00241715

Typical L vs. Frequency

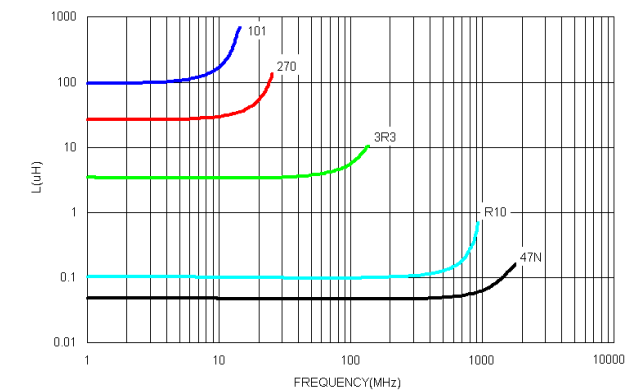


Typical Q vs. Frequency

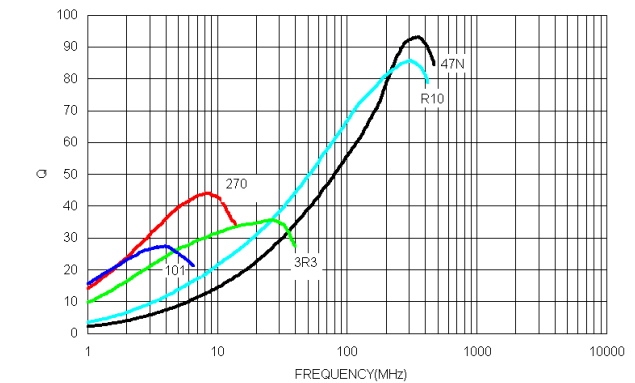


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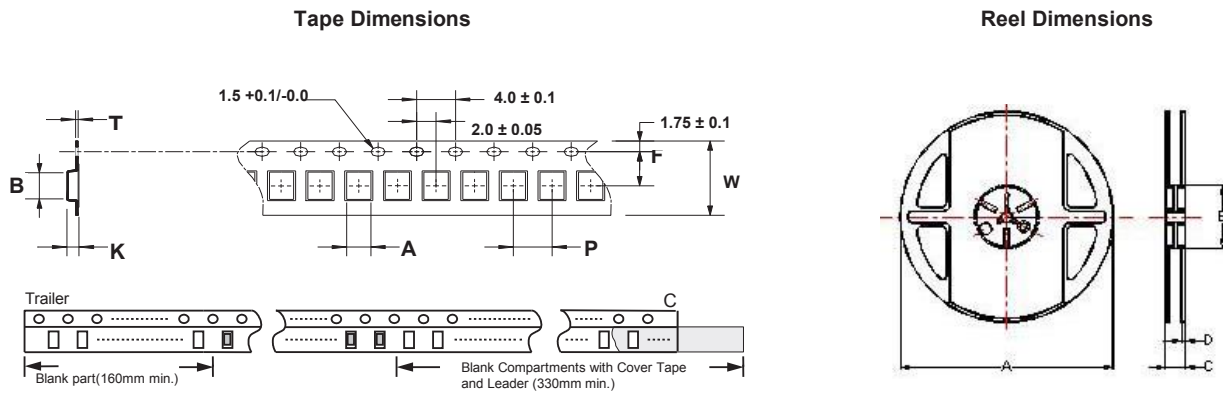
Typical L vs. Frequency



Typical Q vs. Frequency



Packaging Specifications



Dimensions in mm

TYPE	Tape Dimensions							Reel Dimensions				Quantity PCS / Reel
	A	B	T	W	P	F	K	A	B	C	D	
BWNL00241715	1.85	2.45	0.23	8	4	3.5	1.45	178	60	12	1.5	2000
BWNL00292822(5N0~R10)	2.80	2.95	0.23	8	4	3.5	2.20	178	60	12	1.5	2000
BWNL00292522(R12~101)	2.40	2.93	0.26	8	4	3.5	2.25	178	60	12	1.5	2000

For More Information:

Americas - prodinfo_power_americas@yageo.com | Europe - prodinfo_power_emea@yageo.com | Asia - prodinfo_power_asia@yageo.com

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Mouser Electronics

Authorized Distributor

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Pulse:

BWNL00241715100J00	BWNL00241715100K00	BWNL00241715120J00	BWNL00241715120K00
BWNL00241715150J00	BWNL00241715150K00	BWNL00241715180J00	BWNL00241715180K00
BWNL002417151R0J00	BWNL002417151R0K00	BWNL002417151R2J00	BWNL002417151R2K00
BWNL002417151R5J00	BWNL002417151R5K00	BWNL002417151R8J00	BWNL002417151R8K00
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BWNL002925224R7J00	BWNL002925224R7K00	BWNL00292522560J00	BWNL00292522560K00