

DATA SHEET

INDUCTOR

Chip Inductors

BSCL Series

RoHS compliant & Halogen Free



SMD Multilayer Ferrite Chip Inductors - BSCL Series

BSCL Series



The SMD multi-layered ferrite chip inductors provide a cost-effective solution for densely packed PC board designs. BSCL series comes in 4 sizes and is suitable for low frequency applications.

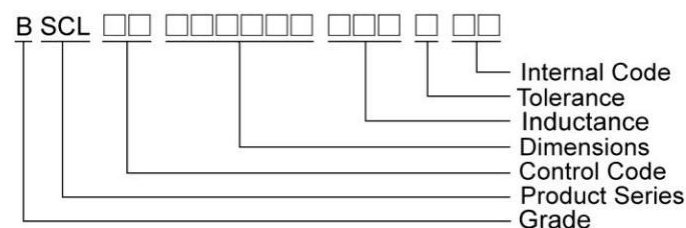
Features

- RoHS compliant
- High mounting density of compact circuit due to crosstalk elimination that results from a closed magnetic flux in a ferrite material
- Suitable for flow and re-flow soldering
- Available in 4 sizes

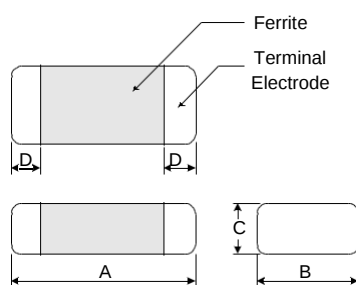
Applications

- Personal computers, HDDs, other various electronic devices
- Any portable device where compact size and high mounting densities are required

Product Identification



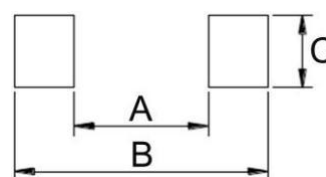
Shape and Dimensions



Dimensions in mm

TYPE	A	B	C	D
BSCL00160808	1.6±0.20	0.80±0.20	0.80±0.20	0.3±0.20
BSCL00201209	2.0±0.20	1.25±0.20	0.90±0.20	0.5±0.30
BSCL00201212	2.0±0.20	1.25±0.20	1.25±0.20	0.5±0.30
BSCL00321611	3.2±0.20	1.60±0.20	1.10±0.20	0.5±0.30

Recommended Pattern



Dimensions in mm

TYPE	A	B	C
BSCL00160808	0.7 ~ 0.8	1.8 ~ 2.0	0.6 ~ 0.8
BSCL00201209	1.0 ~ 1.2	2.6 ~ 4.0	1.0 ~ 1.4
BSCL00201212	1.0 ~ 1.2	2.6 ~ 4.0	1.0 ~ 1.2
BSCL00321611	2.0 ~ 2.4	4.2 ~ 5.2	1.3 ~ 1.9

SMD Multilayer Ferrite Chip Inductors – BSCL Series

Electrical Characteristics

Part Number	Inductance (μ H)	Tolerance ($\pm$ %)	Q Min	Test Frequency (MHz)	SRF (MHz) Min	RDC (Ω) Max	IDC (mA) Max
BSCL0016080810N  00	0.010	20	15	50	300	0.2	50
BSCL0016080833N  00	0.033	20	15	50	270	0.2	50
BSCL0016080847N  00	0.047	20	15	50	260	0.3	50
BSCL0016080856N  00	0.056	20	15	50	255	0.3	50
BSCL0016080868N  00	0.068	20	15	50	250	0.3	50
BSCL0016080882N  00	0.082	20	15	50	245	0.3	50
BSCL00160808R10  00	0.10	20/15/10	25	25	240	0.5	50
BSCL00160808R12  00	0.12	20/15/10	25	25	205	0.5	50
BSCL00160808R15  00	0.15	20/15/10	25	25	180	0.6	50
BSCL00160808R18  00	0.18	20/15/10	25	25	165	0.6	50
BSCL00160808R22  00	0.22	20/15/10	25	25	150	0.8	50
BSCL00160808R27  00	0.27	20/15/10	25	25	136	0.8	50
BSCL00160808R33  00	0.33	20/15/10	25	25	125	0.85	35
BSCL00160808R39  00	0.39	20/15/10	25	25	110	1.00	35
BSCL00160808R47  00	0.47	20/15/10	25	25	105	1.35	35
BSCL00160808R56  00	0.56	20/15/10	25	25	95	1.50	35
BSCL00160808R68  00	0.68	20/15/10	25	25	85	1.70	35
BSCL00160808R82  00	0.82	20/15/10	25	25	75	2.10	35
BSCL001608081R0  00	1.0	20/15/10	35	10	65	0.60	25
BSCL001608081R2  00	1.2	20/15/10	35	10	60	0.80	25
BSCL001608081R5  00	1.5	20/15/10	35	10	55	0.80	25
BSCL001608081R8  00	1.8	20/15/10	35	10	50	0.95	25
BSCL001608082R2  00	2.2	20/15/10	35	10	45	1.00	15
BSCL001608082R7  00	2.7	20/15/10	35	10	40	1.15	15
BSCL001608083R3  00	3.3	20/15/10	35	10	38	1.30	15
BSCL001608083R9  00	3.9	20/15/10	35	10	36	1.50	15
BSCL001608084R7  00	4.7	20/15/10	35	10	33	1.60	15
BSCL001608085R6  00	5.6	20/15/10	35	4	22	1.10	5
BSCL001608086R8  00	6.8	20/15/10	35	4	20	1.30	5
BSCL001608088R2  00	8.2	20/15/10	30	4	18	1.50	5
BSCL00160808100  00	10	20/15/10	30	2	17	1.70	5
BSCL00160808120  00	12	20/15/10	30	2	15	1.80	3
BSCL00160808150  00	15	20/15/10	20	1	14	1.50	1
BSCL00160808220  00	22	20/15/10	20	1	11	1.70	1

Note: When ordering, please specify tolerance code. Tolerance : K=±10% , L=±15% , M=±20%

- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- IDC : Applied the current to coils, the inductance shall be less than 10% initial value
- Measure Equipment :

SRF : Agilent HP8753D/Agilent E4991A
RDC : HP4338B or CHEN HWA 502

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Part Number	Inductance (μ H)	Tolerance ($\pm$ %)	Q Min	Test Frequency (MHz)	SRF MHz) Min	RDC (Ω) Max	IDC (mA) Max
BSCL0020120922N□00	0.022	20	20	50	320	0.20	300
BSCL0020120933N□00	0.033	20/15	20	50	320	0.20	300
BSCL0020120947N□00	0.047	20/15	20	50	320	0.20	300
BSCL0020120956N□00	0.056	20/15	20	50	320	0.20	300
BSCL0020120968N□00	0.068	20/15	20	50	280	0.20	300
BSCL0020120982N□00	0.082	20/15	20	50	255	0.20	300
BSCL00201209R10□00	0.10	20/15/0	25	25	235	0.30	250
BSCL00201209R12□00	0.12	20/15/10	25	25	220	0.30	250
BSCL00201209R15□00	0.15	20/15/10	25	25	200	0.40	250
BSCL00201209R18□00	0.18	20/15/10	25	25	185	0.40	250
BSCL00201209R22□00	0.22	20/15/10	25	25	170	0.50	250
BSCL00201209R27□00	0.27	20/15/10	25	25	150	0.50	250
BSCL00201209R33□00	0.33	20/15/10	25	25	145	0.55	250
BSCL00201209R39□00	0.39	20/15/10	25	25	135	0.65	250
BSCL00201209R47□00	0.47	20/15/10	25	25	125	0.65	250
BSCL00201209R56□00	0.56	20/15/10	25	25	115	0.75	150
BSCL00201209R68□00	0.68	20/15/10	25	25	105	0.80	150
BSCL00201209R82□00	0.82	20/15/10	25	25	100	1.00	150
BSCL002012091R0□00	1.0	20/15/10	45	10	75	0.40	50
BSCL002012091R2□00	1.2	20/15/10	45	10	65	0.50	50
BSCL002012091R5□00	1.5	20/15/10	45	10	60	0.50	50
BSCL002012091R8□00	1.8	20/15/10	45	10	55	0.60	50
BSCL002012092R2□00	2.2	20/15/10	45	10	50	0.65	30

Note: When ordering, please specify tolerance code. Tolerance : K=±10% , L=±15% , M=±20%

- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
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- Measure Equipment :

L & Q : HP4291A

SRF : Agilent HP8753D/Agilent E4991A

RDC : HP4338B or CHEN HWA 502

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Part Number	Inductance (μ H)	Tolerance ($\pm$ %)	Q Min	Test Frequency (MHz)	SRF (MHz) Min	RDC (Ω) Max	IDC (mA) Max
BSCL002012122R7  00	2.7	20/15/10	45	10	45	0.75	30
BSCL002012123R3  00	3.3	20/15/10	45	10	41	0.80	30
BSCL002012123R9  00	3.9	20/15/10	45	10	38	0.90	30
BSCL002012124R7  00	4.7	20/15/10	45	10	35	1.00	30
BSCL002012125R6  00	5.6	20/15/10	45	4	32	0.90	15
BSCL002012126R8  00	6.8	20/15/10	45	4	29	1.00	15
BSCL002012128R2  00	8.2	20/15/10	45	4	26	1.10	15
BSCL00201212100  00	10	20/15/10	45	2	24	1.10	15
BSCL00201212120  00	12	20/15/10	45	2	22	1.20	15
BSCL00201212150  00	15	20/15/10	30	1	19	0.80	5
BSCL00201212180  00	18	20/15/10	30	1	18	0.90	5
BSCL00201212220  00	22	20/15/10	30	1	16	1.1	5

Note: When ordering, please specify tolerance code. Tolerance : K= $\pm$ 10% , L= $\pm$ 15% , M= $\pm$ 20%

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Part Number	Inductance (μ H)	Tolerance ($\pm$ %)	Q Min	Test Frequency (MHz)	SRF (MHz) Min	RDC (Ω) Max	IDC (mA) Max
BSCL0032161147N  00	0.047	20	20	50	320	0.15	300
BSCL0032161156N  00	0.056	20	20	50	280	0.25	300
BSCL0032161168N  00	0.068	20	20	50	280	0.25	300
BSCL0032161182N  00	0.082	20	20	50	250	0.25	300
BSCL00321611R10  00	0.10	20/15/10	25	25	235	0.25	250
BSCL00321611R12  00	0.12	20/15/10	25	25	220	0.30	250
BSCL00321611R15  00	0.15	20/15/10	25	25	200	0.30	250
BSCL00321611R18  00	0.18	20/15/10	25	25	185	0.40	250
BSCL00321611R22  00	0.22	20/15/10	25	25	170	0.40	250
BSCL00321611R27  00	0.27	20/15/10	25	25	150	0.50	250
BSCL00321611R33  00	0.33	20/15/10	25	25	145	0.60	250
BSCL00321611R39  00	0.39	20/15/10	25	25	135	0.50	200
BSCL00321611R47  00	0.47	20/15/10	25	25	125	0.60	200
BSCL00321611R56  00	0.56	20/15/10	25	25	115	0.70	150
BSCL00321611R68  00	0.68	20/15/10	25	25	105	0.80	150
BSCL00321611R82  00	0.82	20/15/10	25	25	100	0.90	150
BSCL003216111R0  00	1.0	20/15/10	45	10	75	0.40	100
BSCL003216111R2  00	1.2	20/15/10	45	10	65	0.50	100
BSCL003216111R5  00	1.5	20/15/10	45	10	60	0.50	80
BSCL003216111R8  00	1.8	20/15/10	45	10	55	0.50	70
BSCL003216112R2  00	2.2	20/15/10	45	10	50	0.60	60
BSCL003216112R7  00	2.7	20/15/10	45	10	45	0.60	60
BSCL003216113R3  00	3.3	20/15/10	45	10	41	0.70	60
BSCL003216113R9  00	3.9	20/15/10	45	10	38	0.80	50
BSCL003216114R7  00	4.7	20/15/10	45	10	35	0.90	50
BSCL003216115R6  00	5.6	20/15/10	45	4	32	0.70	25
BSCL003216116R8  00	6.8	20/15/10	45	4	29	0.80	25
BSCL003216118R2  00	8.2	20/15/10	45	4	26	0.90	25
BSCL00321611100  00	10	20/15/10	45	2	24	1.00	25
BSCL00321611120  00	12	20/15/10	45	2	22	1.00	15
BSCL00321611150  00	15	20/15/10	35	1	19	0.70	5
BSCL00321611180  00	18	20/15/10	35	1	18	0.75	5
BSCL00321611220  00	22	20/15/10	35	1	16	0.90	5
BSCL00321611270  00	27	20/15/10	35	1	14	0.90	5

Note: When ordering, please specify tolerance code. Tolerance : K=±10% , L=±15% , M=±20%

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- Measure Equipment :
L & Q : HP4291A



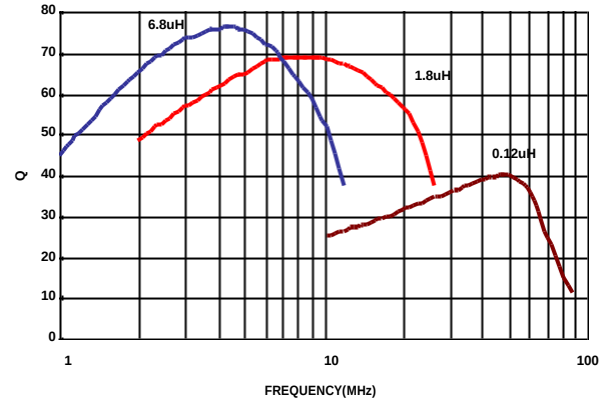
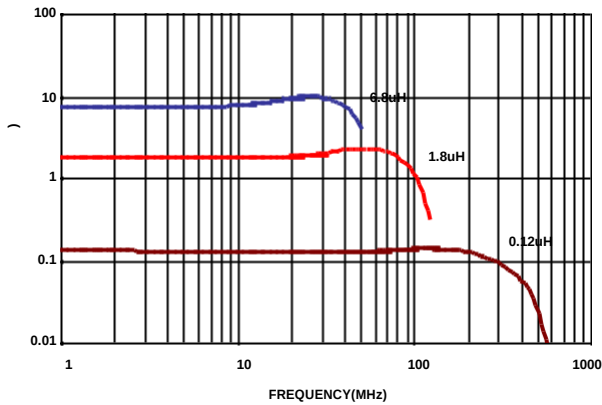
RDC : HP4338B or CHEN HWA 502

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Test Instruments : Agilent E4991A Impedance / Material Analyzer

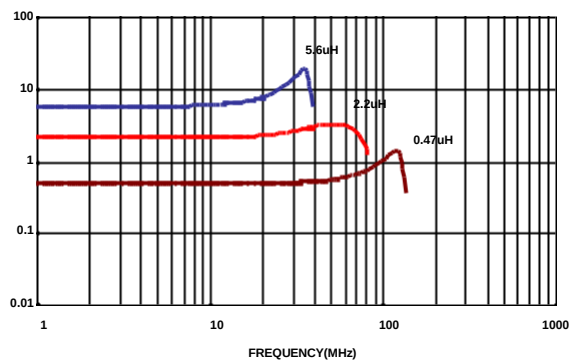
BSCL00160808

INDUCTANCE v.s. FREQUENCY CHARACTERISTICS Q v.s. FREQUENCY CHARACTERISTICS

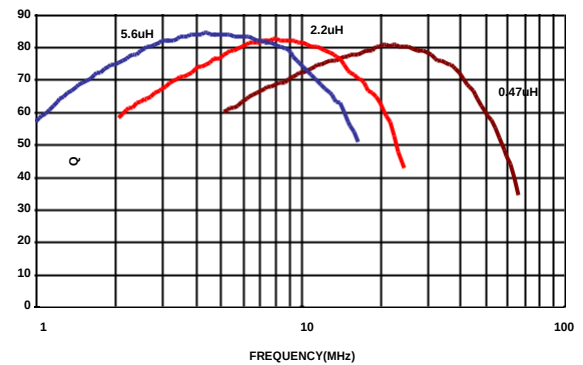


BSCL00201209

INDUCTANCE v.s. FREQUENCY CHARACTERISTICS

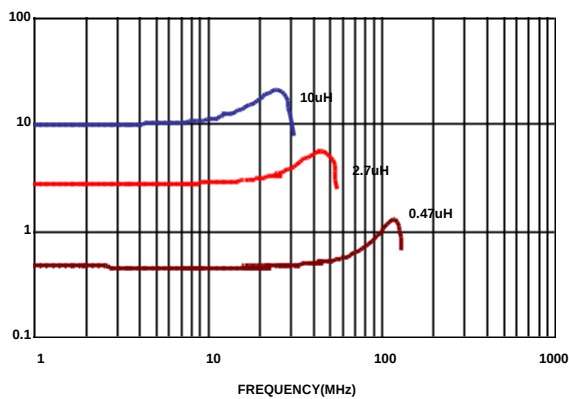


Q v.s. FREQUENCY CHARACTERISTICS

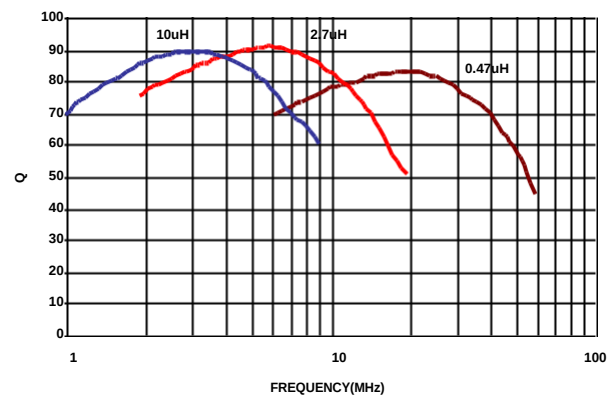


BSCL00321611

INDUCTANCE v.s. FREQUENCY CHARACTERISTICS



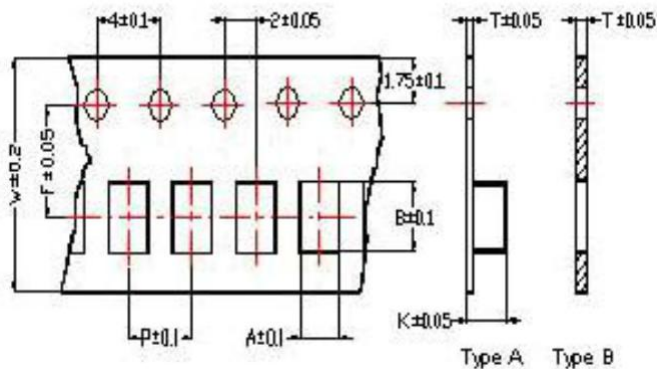
Q v.s. FREQUENCY CHARACTERISTICS



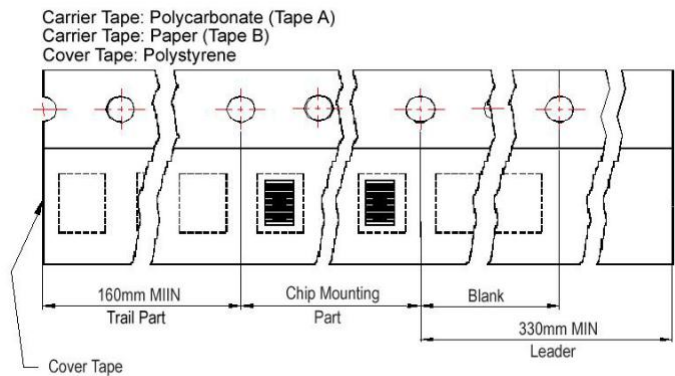
SMD Multilayer Ferrite Chip Inductors - BSCL Series

Packaging Specifications

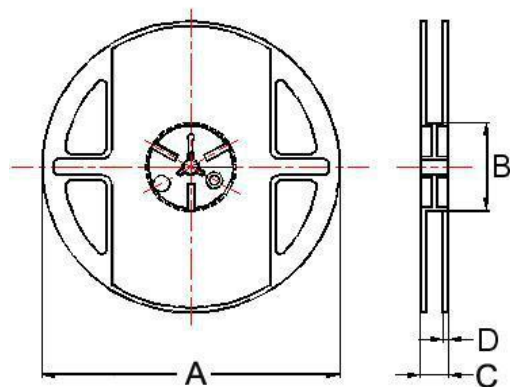
Tape Dimensions



Tape Material



Reel Dimensions



Dimensions in mm

TYPE	Tape Dimensions								Reel Dimensions				Quantity
	A	B	T	W	P	F	K	Tape	A	B	C	D	PCS / Reel
BSCL00160808	1.05	1.85	0.95	8.0	4.0	3.5	-	B	178	60	12	1.5	4000
BSCL00201209	1.50	2.30	0.97	8.0	4.0	3.5	-	B	178	60	12	1.5	4000
BSCL00201212	1.35	2.25	0.22	8.0	4.0	3.5	1.35	A	178	60	12	1.5	3000
BSCL00321611	1.88	3.50	0.22	8.0	4.0	3.5	1.27	A	178	60	12	1.5	3000

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Pulse:

<u>BSCL00160808100K00</u>	<u>BSCL00160808100L00</u>	<u>BSCL00160808100M00</u>	<u>BSCL0016080810NM00</u>
<u>BSCL00160808120K00</u>	<u>BSCL00160808120L00</u>	<u>BSCL00160808120M00</u>	<u>BSCL00160808150K00</u>
<u>BSCL00160808150L00</u>	<u>BSCL00160808150M00</u>	<u>BSCL001608081R0K00</u>	<u>BSCL001608081R0L00</u>
<u>BSCL001608081R0M00</u>	<u>BSCL001608081R2K00</u>	<u>BSCL001608081R2L00</u>	<u>BSCL001608081R2M00</u>
<u>BSCL001608081R5K00</u>	<u>BSCL001608081R5L00</u>	<u>BSCL001608081R5M00</u>	<u>BSCL001608081R8K00</u>
<u>BSCL001608081R8L00</u>	<u>BSCL001608081R8M00</u>	<u>BSCL00160808220K00</u>	<u>BSCL00160808220L00</u>
<u>BSCL00160808220M00</u>	<u>BSCL001608082R2K00</u>	<u>BSCL001608082R2L00</u>	<u>BSCL001608082R2M00</u>
<u>BSCL001608082R7K00</u>	<u>BSCL001608082R7L00</u>	<u>BSCL001608082R7M00</u>	<u>BSCL0016080833NM00</u>
<u>BSCL001608083R3K00</u>	<u>BSCL001608083R3L00</u>	<u>BSCL001608083R3M00</u>	<u>BSCL001608083R9K00</u>
<u>BSCL001608083R9L00</u>	<u>BSCL001608083R9M00</u>	<u>BSCL0016080847NM00</u>	<u>BSCL001608084R7K00</u>
<u>BSCL001608084R7L00</u>	<u>BSCL001608084R7M00</u>	<u>BSCL0016080856NM00</u>	<u>BSCL001608085R6K00</u>
<u>BSCL001608085R6L00</u>	<u>BSCL001608085R6M00</u>	<u>BSCL0016080868NM00</u>	<u>BSCL001608086R8K00</u>
<u>BSCL001608086R8L00</u>	<u>BSCL001608086R8M00</u>	<u>BSCL0016080882NM00</u>	<u>BSCL001608088R2K00</u>
<u>BSCL001608088R2L00</u>	<u>BSCL001608088R2M00</u>	<u>BSCL00160808R10K00</u>	<u>BSCL00160808R10L00</u>
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<u>BSCL00160808R22M00</u>	<u>BSCL00160808R27K00</u>	<u>BSCL00160808R27L00</u>	<u>BSCL00160808R27M00</u>
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<u>BSCL002012091R5K00</u>	<u>BSCL002012091R5L00</u>	<u>BSCL002012091R5M00</u>	<u>BSCL002012091R8K00</u>