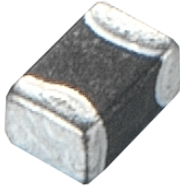


## BSCL Series



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.

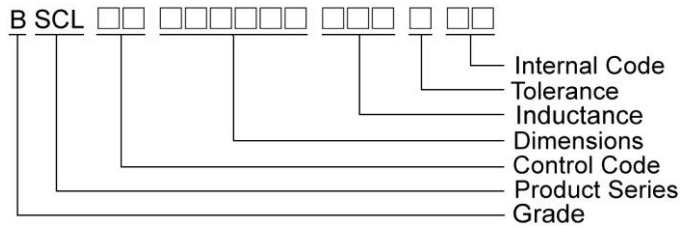
### Features

- 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

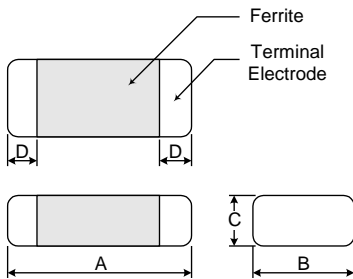
### Applications

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

### Product Identification



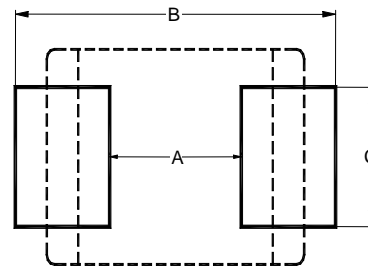
### Shape and Dimensions



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 ~ 1.2
BSCL00201212	1.0 ~ 1.2	2.6 ~ 4.0	1.0 ~ 1.2
BSCL00321611	2.0	4.2 ~ 5.2	1.2

## SMD Multilayer Ferrite Chip Inductors – BSCL Series

### Electrical Characteristics

Part Number	Inductance ( $\mu$ H)	Tolerance ( $\pm$ %)	Q Min	Test Frequency (MHz)	SRF (MHz) Min	RDC ( $\Omega$ ) 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= $\pm$ 10% , L= $\pm$ 15% , M= $\pm$ 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 :  
L & Q : HP4291A  
SRF : Agilent HP8753D/Agilent E4991A  
RDC : HP4338B or CHEN HWA 502

## SMD Multilayer Ferrite Chip Inductors – BSCL Series

### Electrical Characteristics

Part Number	Inductance ( $\mu$ H)	Tolerance ( $\pm$ %)	Q Min	Test Frequency (MHz)	SRF (MHz) Min	RDC ( $\Omega$ ) 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= $\pm$ 10% , L= $\pm$ 15% , M= $\pm$ 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 :  
L & Q : HP4291A  
SRF : Agilent HP8753D/Agilent E4991A  
RDC : HP4338B or CHEN HWA 502

### Electrical Characteristics

Part Number	Inductance ( $\mu$ H)	Tolerance ( $\pm$ %)	Q Min	Test Frequency (MHz)	SRF (MHz) Min	RDC ( $\Omega$ ) 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%**

- 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 :  
L & Q : HP4291A  
SRF : Agilent HP8753D/Agilent E4991A  
RDC : HP4338B or CHEN HWA 502

## SMD Multilayer Ferrite Chip Inductors – BSCL Series

### Electrical Characteristics

Part Number	Inductance ( $\mu$ H)	Tolerance ( $\pm$ %)	Q Min	Test Frequency (MHz)	SRF (MHz) Min	RDC ( $\Omega$ ) 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
BSCL00321611R10□00	1.0	20 / 15 / 10	45	10	75	0.40	100
BSCL00321611R12□00	1.2	20 / 15 / 10	45	10	65	0.50	100
BSCL00321611R15□00	1.5	20 / 15 / 10	45	10	60	0.50	80
BSCL00321611R18□00	1.8	20 / 15 / 10	45	10	55	0.50	70
BSCL00321611R22□00	2.2	20 / 15 / 10	45	10	50	0.60	60
BSCL00321611R27□00	2.7	20 / 15 / 10	45	10	45	0.60	60
BSCL00321611R33□00	3.3	20 / 15 / 10	45	10	41	0.70	60
BSCL00321611R39□00	3.9	20 / 15 / 10	45	10	38	0.80	50
BSCL00321611R47□00	4.7	20 / 15 / 10	45	10	35	0.90	50
BSCL00321611R56□00	5.6	20 / 15 / 10	45	4	32	0.70	25
BSCL00321611R68□00	6.8	20 / 15 / 10	45	4	29	0.80	25
BSCL00321611R82□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

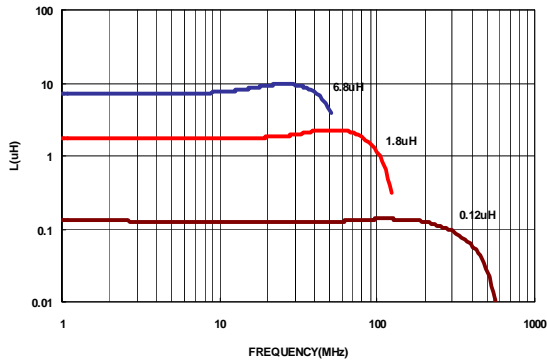
**Note: When ordering, please specify tolerance code. Tolerance : K= $\pm$ 10% , L= $\pm$ 15% , M= $\pm$ 20%**

- 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 :  
L & Q : HP4291A  
SRF : Agilent HP8753D/Agilent E4991A  
RDC : HP4338B or CHEN HWA 502

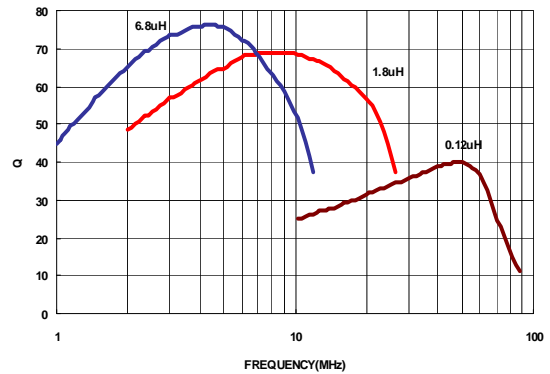
Test Instruments : Agilent E4991A Impedance / Material Analyzer

## BSC00160808

INDUCTANCE vs. FREQUENCY CHARACTERISTICS

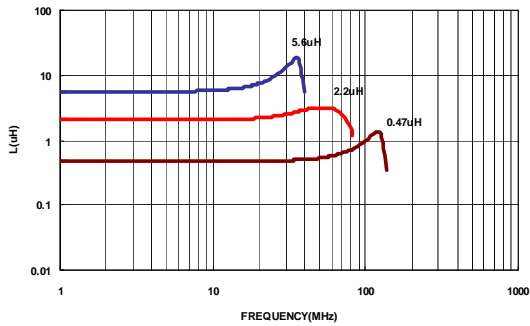


Q vs. FREQUENCY CHARACTERISTICS

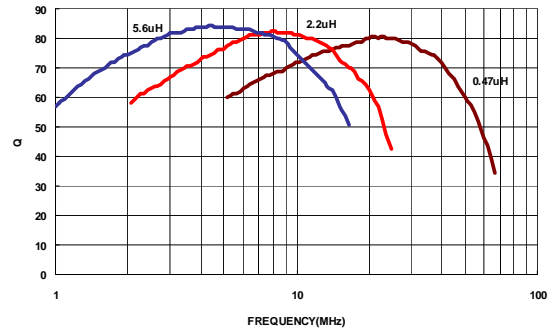


## BSC00201209

INDUCTANCE vs. FREQUENCY CHARACTERISTICS

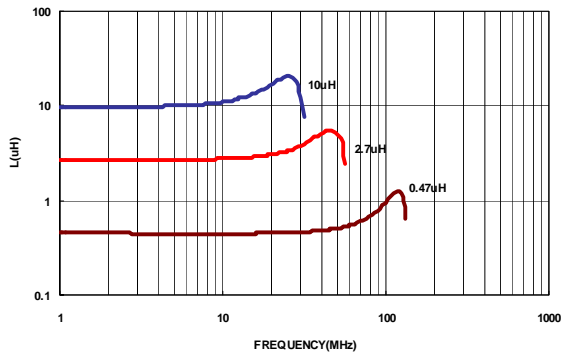


Q vs. FREQUENCY CHARACTERISTICS

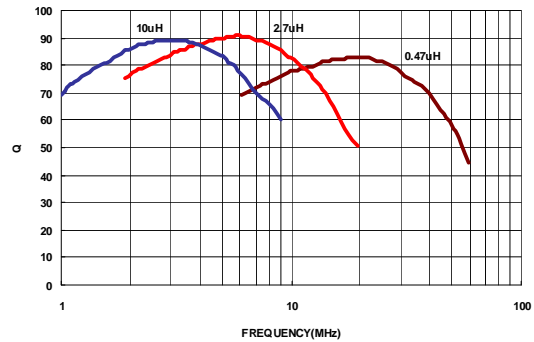


## BSC00321611

INDUCTANCE vs. FREQUENCY CHARACTERISTICS



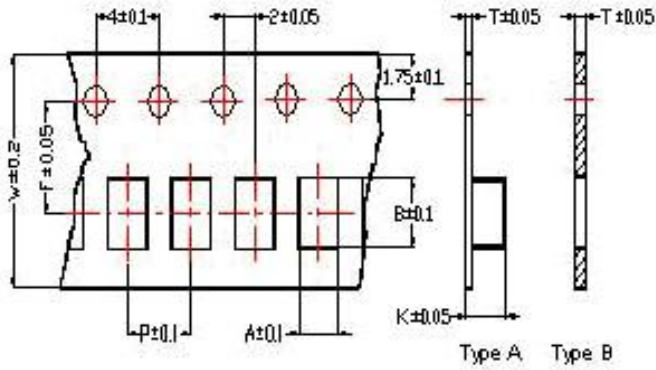
Q vs. FREQUENCY CHARACTERISTICS



# SMD Multilayer Ferrite Chip Inductors - BSCL Series

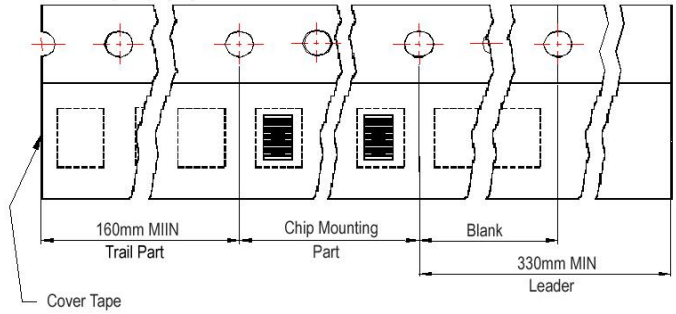
## Packaging Specifications

### Tape Dimensions

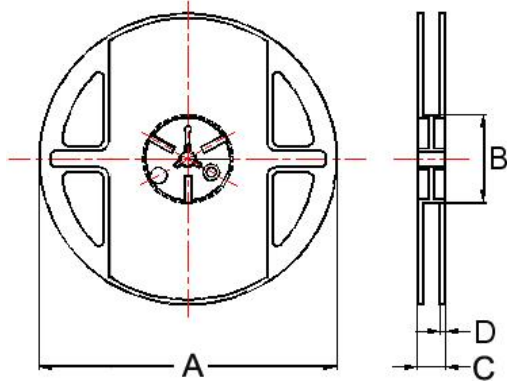


### Tape Material

Carrier Tape: Polycarbonate (Tape A)  
 Carrier Tape: Paper (Tape B)  
 Cover Tape: Polystyrene



### Reel Dimensions



### Dimensions in mm

TYPE	Tape Dimensions								Reel Dimensions				Quantity PCS / Reel
	A	B	T	W	P	F	K	Tape	A	B	C	D	
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