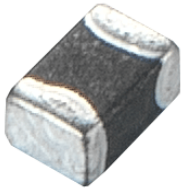
BSCL Series



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.

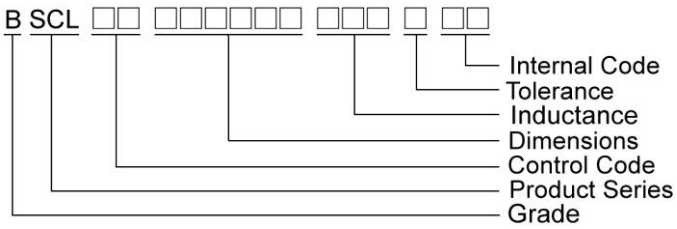
Features

- 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

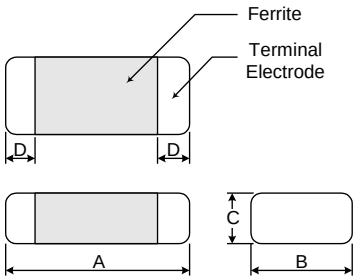
Applications

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

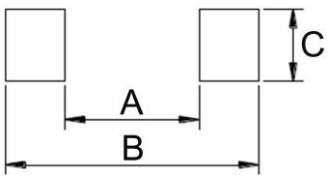
Product Identification



Shape and Dimensions



Recommended Pattern



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

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

Electrical Characteristics

Part Number	Inductance (μH)	Tolerance (±%)	Q Min	Test Frequency (MHz)	SRF (MHz) Min	RDC (Ω) Max	IDC (mA) Max
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℃～125℃(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 (μH)	Tolerance (±%)	Q Min	Test Frequency (MHz)	SRF MHz) Min	RDC (Ω) Max	IDC (mA) Max
BSCL00201209R10☐00	0.10	20 / 15 / 10	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%

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  SRF：Agilent HP8753D/Agilent E4991A

  RDC：HP4338B or CHEN HWA 502

Electrical Characteristics

Part Number	Inductance (μH)	Tolerance (±%)	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=±10% , L=±15% , M=±20%

- Operating temperature range－40℃～125℃(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 (μH)	Tolerance (±%)	Q Min	Test Frequency (MHz)	SRF (MHz) Min	RDC (Ω) Max	IDC (mA) Max
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%

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

  L & Q：HP4291A

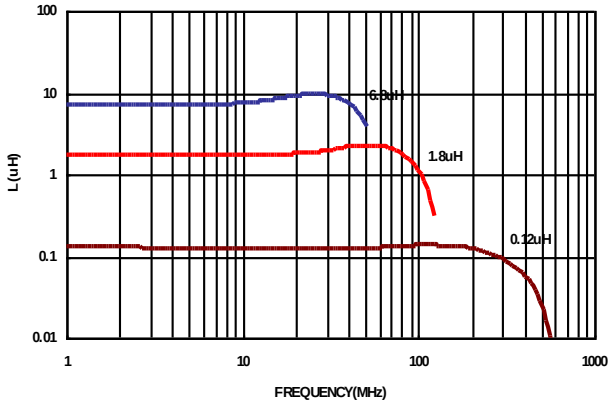
  SRF：Agilent HP8753D/Agilent E4991A

  RDC：HP4338B or CHEN HWA 502

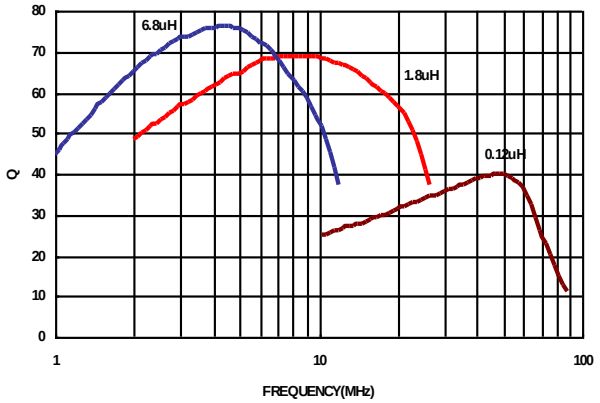
Test Instruments：Agilent E4991A Impedance / Material Analyzer

BSCL00160808

INDUCTANCE vs. FREQUENCY CHARACTERISTICS

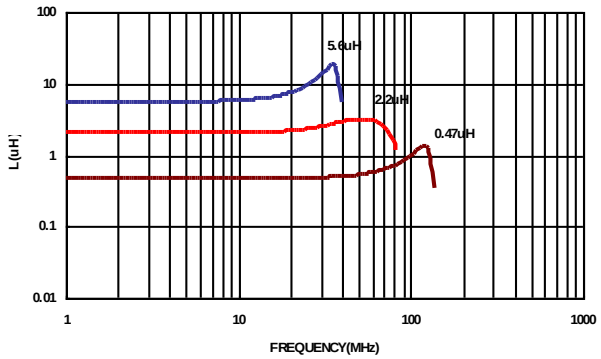


Q vs. FREQUENCY CHARACTERISTICS

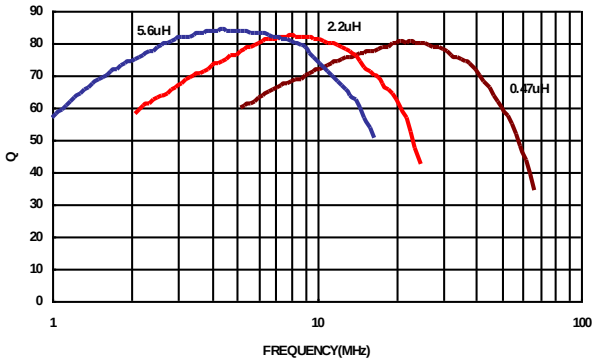


BSCL00201209

INDUCTANCE vs. FREQUENCY CHARACTERISTICS

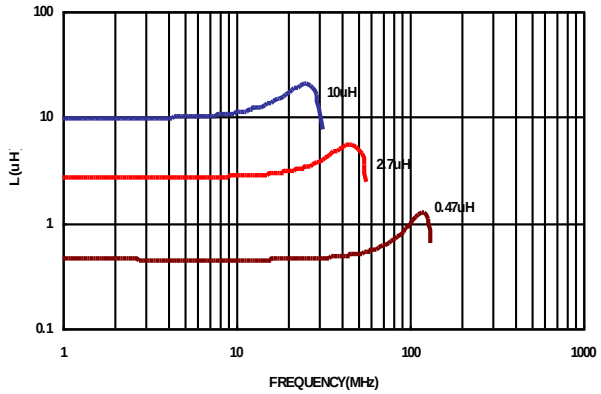


Q vs. FREQUENCY CHARACTERISTICS

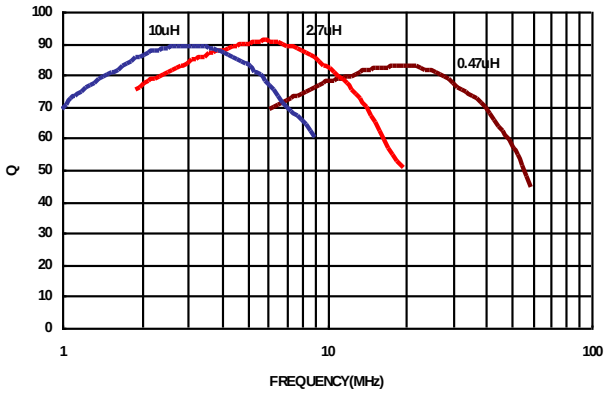


BSCL00321611

INDUCTANCE vs. FREQUENCY CHARACTERISTICS

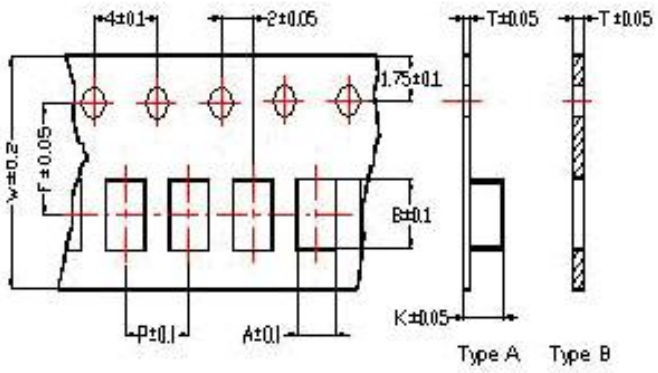


Q vs. FREQUENCY CHARACTERISTICS

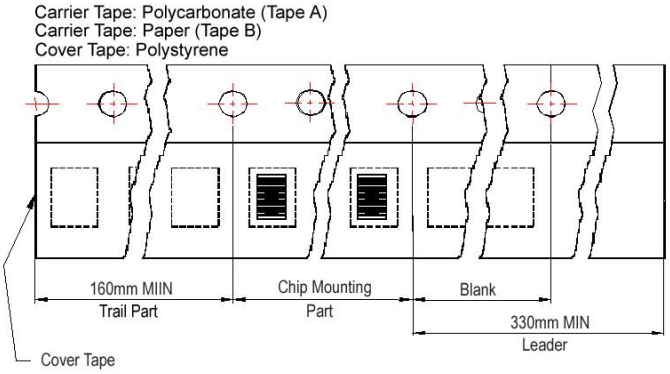


Packaging Specifications

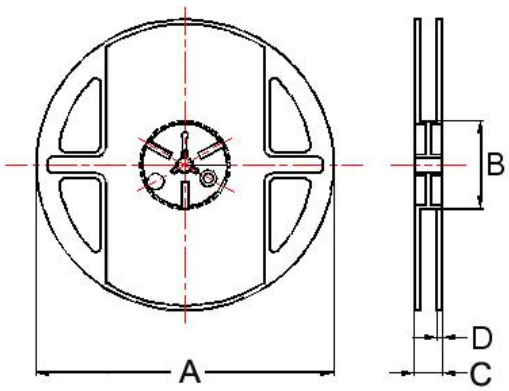
Tape Dimensions



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