

BPSC Series

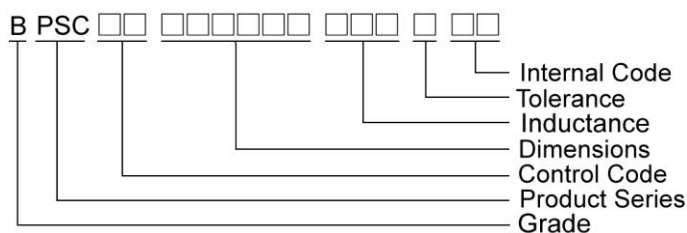
Features

- RoHS, Halogen Free and REACH Compliance
- Magnetic shielded
- Various package size and wide inductance range

Applications

- AP Routers
- STBs
- LCD TVs and monitors
- Game consoles
- LED lightings
- DC/DC converters

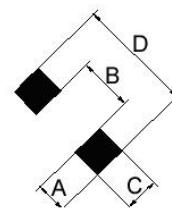
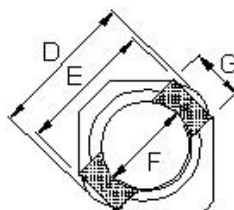
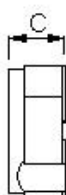
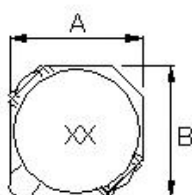
Product Identification



Shape and Dimensions

Recommended Pattern

BPSC00030312/030316/030320



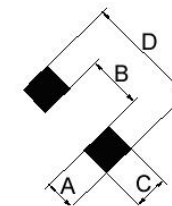
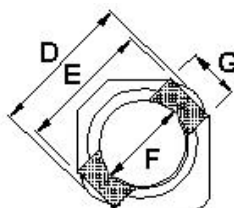
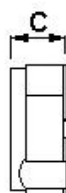
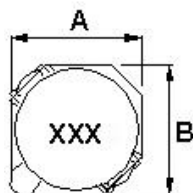
Dimension in mm

TYPE	Shape and Dimensions							Recommended Pattern			
	A	B	C	D	E	F	G	A	B	C	D
BPSC00030312	3.2 ⁺⁰	3.2 ⁺⁰	1.2 ⁺⁰	4.5 ⁺⁰	3.3	2.1	1.0	1.3	1.7	1.3	4.3
BPSC00030316	3.2 ⁺⁰	3.2 ⁺⁰	1.55 ⁺⁰	4.5 ⁺⁰	3.3	2.1	1.0	1.3	1.7	1.3	4.3
BPSC00030320	3.2 ⁺⁰	3.2 ⁺⁰	2.0 ⁺⁰	4.5 ⁺⁰	3.3	2.1	1.0	1.3	1.7	1.3	4.3

Shape and Dimensions

Recommended Pattern

BPSC00040412



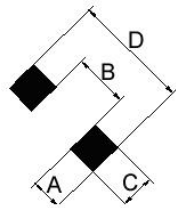
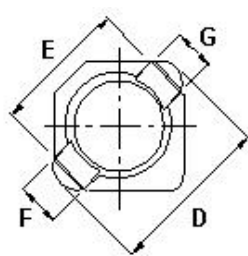
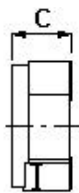
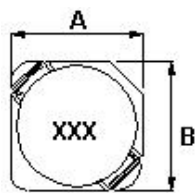
Dimension in mm

TYPE	Shape and Dimensions							Recommended Pattern			
	A	B	C	D	E	F	G	A	B	C	D
BPSC00040412	4 ⁺⁰	4 ⁺⁰	1.2 ⁺⁰	5.2 ⁺⁰	4.4	2.8	1.1	1.4	2.4	1.5	5.2

Shape and Dimensions

Recommended Pattern

BPSC00040418



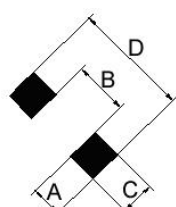
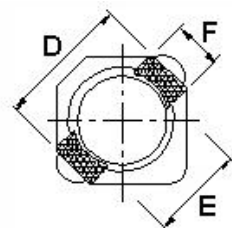
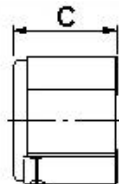
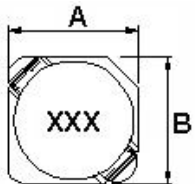
Dimensions in mm

TYPE	Shape and Dimensions							Recommended Pattern			
	A	B	C	D	E	F	G	A	B	C	D
BPSC00040418	4 ⁺⁰	4 ⁺⁰	1.8 ⁺⁰	5.2 ⁺⁰	4.4Typ	1.4 ⁺⁰	1.1Typ	1.4	2.4	1.5	5.2

Shape and Dimensions

Recommended Pattern

BPSC00404030



Dimension in mm

TYPE	Shape and Dimensions						Recommended Pattern			
	A	B	C	D	E	F	A	B	C	D
BPSC00404030	4 ⁺⁰	4 ⁺⁰	3 ⁺⁰	4.4	2.8	1.1	1.4	2.4	1.5	5.2

SMD Shielded Power Inductors - BPSC Series

Standard Specifications

Stamp	Inductance (μ H)	RDC (m Ω) Max								
		BPSC 030312	BPSC 030316	BPSC 030320-LD	BPSC 030320-HP	BPSC 040412	BPSC 040412-HP	BPSC 040418-S1	BPSC 040430	BPSC 040430-LD
R47	0.47		40							
R60	0.6						59			
1R0	1.0							40	45	
1R2	1.2						82			
1R5	1.5	68	63		44		104	52		
1R7	1.7				44					
1R8	1.8		75							
2R2	2.2	98	94	41	60		143	72		
2R7	2.7		106			78				
3R3	3.3	123	125	54	86		182	85	72.1	
3R9	3.9	160	138							
4R1	4.1		169							
4R7	4.7	170	169	78	140	123	234	105	88.3	
5R6	5.6		188					135		
6R3	6.3				160					
6R8	6.8	260	213	106	195	180	377	170	119	
8R2	8.2		281			204		210		
100	10	400	294	180	245	240	413	210	145	95
120	12		394			276	585			100
150	15	600		220	345	372	653	295	213	115
180	18					468	888			125
220	22	950		320	650	540	1010	430	335	145
270	27					726				175
330	33			460		822		675	481	215
390	39			600		942				225
470	47			660					599	305
560	56									325
680	68									470
820	82									540
101	100							2750		610
121	120									755
151	150									880
181	180									1130
221	220									1270

Note: When ordering, please specify tolerance code. Tolerance: M=±20% , T=±30% , N = ⁺⁴⁰₋₂₀%

- Operating temperature range - 30°C ~ 100°C(Including self - temperature rise)
- Rated Current : DC current that will cause L drop approximately 35% over its nominal value or DC current cause the temperature rising approximately $\Delta t=40^{\circ}\text{C}$, whichever is lower
- Irms for a 40°C temperature rise from 25°C ambient with current
- Measure Equipment :
 Test Freq L : BPSC 030312/ 030316/ 030320/ 040412/ 404030 (100kHz/ 1V), BPSC 040418 (100kHz/ 0.1V)
 L : Agilent/ E4980 or HP4284A
 RDC : Chroma 16502
 Rated Current : HP4284+42841A or WK3260B+WK3265B

SMD Shielded Power Inductors - BPSC Series

Standard Specifications

Stamp	Inductance (μ H)	Rated Current (A)								
		BPSC 030312	BPSC 030316	BPSC 030320-LD	BPSC 030320-HP	BPSC 040412	BPSC 040412-HP	BPSC 040418-S1	BPSC 040430	BPSC 040430-LD
R47	0.47		2.00							
R60	0.6						2.90			
1R0	1.0							1.60	2.80	
1R2	1.2						2.00			
1R5	1.5	0.90	1.80		1.90		1.85	1.55		
1R7	1.7				1.85					
1R8	1.8		1.65							
2R2	2.2	0.78	1.50	0.85	1.60		1.60	1.20		
2R7	2.7		1.35			0.53				
3R3	3.3	0.60	1.20	0.75	1.45		1.25	1.10	2.00	
3R9	3.9	0.60	1.10							
4R1	4.1		1.00							
4R7	4.7	0.50	1.00	0.63	1.20	0.40	1.00	0.90	1.65	
5R6	5.6		0.95					0.80		
6R3	6.3				1.05					
6R8	6.8	0.44	0.85	0.52	1.00	0.34	0.85	0.73	1.24	
8R2	8.2		0.80			0.32		0.55		
100	10	0.35	0.70	0.43	0.85	0.28	0.80	0.55	1.05	0.50
120	12		0.62			0.25	0.64			0.45
150	15	0.25		0.35	0.70	0.23	0.58	0.45	0.90	0.40
180	18					0.21	0.52			0.35
220	22	0.16		0.30	0.50	0.19	0.45	0.40	0.76	0.33
270	27					0.17				0.29
330	33			0.24		0.15		0.32	0.58	0.28
390	39			0.22		0.14				0.25
470	47			0.20					0.48	0.23
560	56									0.20
680	68									0.185
820	82									0.172
101	100							0.13		0.160
121	120									0.136
151	150									0.124
181	180									0.119
221	220									0.116

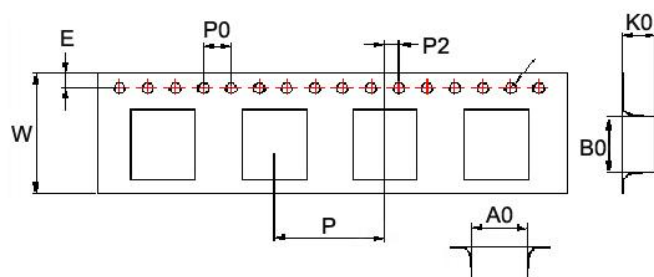
Tolerance Of Inductors

- BPSC 030312 1.5 ~ 22 μ H $\pm$ 30%
- BPSC 030316 0.47 ~ 12 μ H $\pm$ 30%
- BPSC 030320-LD 2.2 ~ 47 μ H $\pm$ 30%
- BPSC 030320-HP 1.5 ~ 22 μ H $\pm$ 30%
- Tolerance : M = $\pm$ 20% , T = $\pm$ 30% , N = $^{+40}_{-20}$ %
- BPSC 040412 2.7 ~ 39 μ H $\pm$ 30%
- BPSC 040412-HP 0.6 ~ 22 μ H $\pm$ 30%
- BPSC 040418-S1 1.0 ~ 100 μ H $\pm$ 30%
- BPSC 040430 1.0 ~ 47 μ H $\pm$ 30%
- BPSC 040430-LD 10 ~ 220 μ H $\pm$ 30%

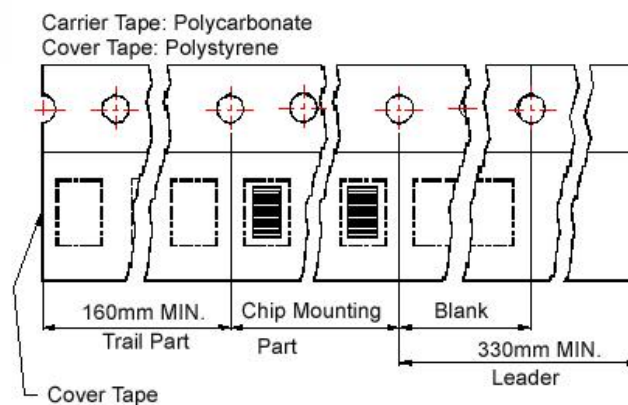
SMD Shielded Power Inductors - BPSC Series

Packaging Specifications

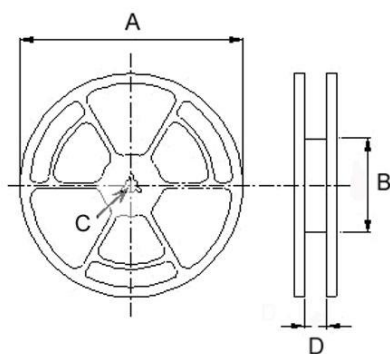
Tape Dimensions



Tape Material



Reel Dimensions



Dimensions in mm

TYPE	Tape Dimensions									Reel Dimensions				Quantity PCS / REEL
	A0	B0	K0	D	E	W	P	P0	P2	A	B	C	D	
BPSC00030312	3.35	3.35	1.4	1.55	1.75	12	8	4	2	178	60	13	13.2	1000
BPSC00030316	3.35	3.35	1.7	1.55	1.75	12	8	4	2	178	60	13	13.2	1000
BPSC00030320	3.5	3.5	2.1	1.55	1.75	12	8	4	2	178	60	13	13.2	1000
BPSC00040412	4.2	4.2	1.5	1.55	1.75	12	8	4	2	178	60	13	13.2	1000
BPSC00040418	4.1	4.1	2.0	1.5	1.75	12	8	4	2	178	60	13	13.2	1000
BPSC00040430	4.2	4.2	3.2	1.55	1.75	12	8	4	2	178	60	13	13.2	500