

BPSD Series



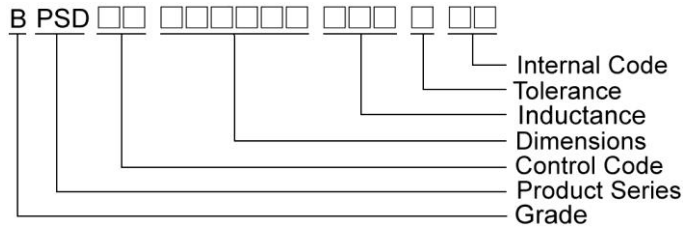
Features

- RoHS, Halogen Free and REACH Compliance
- Unshielded power inductor
- Various package size and wide inductance range

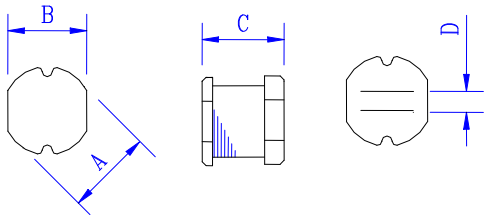
Applications

- Graphic cards
- DC/DC converters

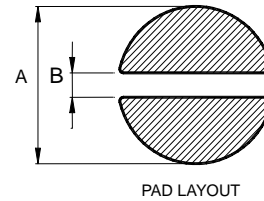
Product Identification



Shape and Dimensions



Recommended Pattern



Dimensions in mm

TYPE	A	B	C	D
BPSD00030315	3.3±0.3	3.0±0.3	1.5±0.3	1.0
BPSD00030321	3.3±0.3	3.0±0.3	2.1±0.3	1.0
BPSD00050432	4.5±0.3	4.0±0.3	3.2±0.3	1.2
BPSD00060525	5.8±0.3	5.2±0.3	2.5±0.3	2.0
BPSD00060530	5.8±0.3	5.2±0.3	3±0.3	2.0
BPSD00060545	5.8±0.3	5.2±0.3	4.5±0.4	1.3
BPSD00080735	7.8±0.3	7.0±0.3	3.5±0.3	2.1
BPSD00080750	7.8±0.3	7.0±0.3	5.0±0.3	2.1
BPSD00109040	10.0±0.3	9.0±0.3	4.0±0.5	2.1
BPSD00100954	10.0±0.4	9.0±0.4	5.4±0.4	2.1
BPSD00100965	10.0±0.4	9.0±0.4	6.5±0.4	2.1

Dimensions in mm

Dim	A	B
BPSD00030315	4.5	1.0
BPSD00030321	4.5	1.0
BPSD00050432	5.5	1.2
BPSD00060525	6.8	2.0
BPSD00060530	6.8	2.0
BPSD00060545	6.8	1.3
BPSD00080735	8.8	2.1
BPSD00080750	8.8	2.1
BPSD00109040	11	2.1
BPSD00100954	11	2.1
BPSD00100965	11	2.1

SMD Unshielded Power Inductors - BPSD Series

Standard Specifications

Stamp	Inductance (μH)	RDC (Ω) Max										
		BPSD 030315	BPSD 030321	BPSD 050432	BPSD 060525	BPSD 060530	BPSD 060545	BPSD 080735	BPSD 080750	BPSD 100940	BPSD 100954	BPSD 100965
R15	0.15			0.0085								
R82	0.82		0.06									
1R0	1.0		0.07	0.033	0.03	0.03						
1R2	1.2			0.035		0.03						
1R4	1.4		0.09	0.038	0.04				0.02			
1R5	1.5		0.11			0.03			0.02			
1R8	1.8		0.11	0.042	0.05	0.03	0.020		0.02			
2R2	2.2	0.10±30%	0.13	0.047	0.06	0.03	0.023	0.03	0.02			
2R7	2.7		0.14	0.052	0.07	0.04			0.02			
3R0	3.0								0.025			
3R3	3.3	0.11±30%	0.17	0.058	0.08	0.05	0.0314		0.03	0.022	0.038	
3R5	3.5						0.030					
3R8	3.8									0.022		
3R9	3.9		0.19	0.076	0.09	0.06			0.03			
4R7	4.7	0.15±30%	0.21	0.094	0.14	0.07	0.0372	0.04	0.04		0.040	
5R6	5.6	0.15±30%	0.22	0.101	0.15	0.08			0.04		0.037	
6R2	6.2			0.110								
6R8	6.8	0.20±30%	0.25	0.117	0.16	0.09	0.057		0.04	0.04	0.037	
7R0	7.0		0.28									
8R2	8.2		0.28	0.132	0.17	0.10			0.05		0.050	
100	10	0.30±30%	0.32	0.182	0.18	0.12	0.10	0.08	0.07	0.05	0.060	
120	12		0.35	0.210	0.20	0.13	0.12	0.09	0.08	0.06	0.070	
150	15	0.58±30%	0.40	0.235	0.22	0.15	0.14	0.10	0.09	0.07	0.080	
180	18		0.48	0.338	0.25	0.22	0.15	0.11	0.10	0.08	0.090	
220	22	0.71±30%	0.58	0.378	0.35	0.22	0.18	0.13	0.11	0.09	0.100	0.08
270	27		0.65	0.522	0.45	0.26	0.20	0.15	0.12	0.10	0.110	
330	33	1.10±30%	0.80	0.540	0.56	0.33	0.23	0.17	0.13	0.12	0.120	
390	39	1.30±30%	0.90	0.587	0.69	0.42	0.32	0.22	0.16	0.15	0.140	
470	47	1.30±30%	1.19	0.844	0.72	0.50	0.37	0.25	0.18	0.17	0.170	
500	50		1.22									
560	56		1.27	0.937	0.84	0.55	0.42	0.28	0.24	0.20	0.190	
680	68	2.20±30%	1.73	1.117	0.90	0.65	0.46	0.33	0.28	0.22	0.220	
750	75		1.90									
820	82		1.99		1.20	0.80	0.60	0.41	0.37	0.30	0.25	
101	100	3.50±30%	2.52	2.000	1.30	0.90	0.70	0.48	0.43	0.34	0.35	
121	120		2.90	1.800	1.38	1.00	0.93	0.54	0.47	0.40	0.40	
151	150		3.36	2.800	1.81	1.30	1.10	0.75	0.64	0.54	0.47	
181	180		5.10	3.200	1.95	1.50	1.38	1.02	0.71	0.62	0.63	
221	220	10.92	5.80	4.000	3.00	2.00	1.57	1.20	0.96	0.72	0.73	
271	270		7.80		3.20	2.50	1.85	1.31	1.11	0.95	0.97	
331	330			5.850	3.82	3.20	2.00	1.50	1.26	1.10	1.15	
391	390				4.68	3.50	2.60		1.77	1.24	1.30	
471	470				5.10	4.20	3.00		1.96	1.53	1.48	1.421
561	560				8.50	4.50	4.19	2.50	2.41	1.90	1.90	
681	680				10.0	6.50	4.44		2.50		2.25	
821	820				12.0	7.50	5.12				2.55	
102	1000				18.0	8.00	10.00		2.80		3.10	2.9
122	1200											3.5
152	1500											3.8
202	2000											6.6
222	2200											8.0
602	6000											14
822	8200											50

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

- Operating temperature range - 40°C ~ 105°C(Including self – temperature rise)
- Isat for Inductance drop 10% from its value without current
- Measure Equipment :

Test Freq L : BPSD 030315: (1MHz/1V), BPSD 100954/100965: 1.0 ~ 8.2μH(7.96MHz/1V), 10 ~ 82μH (2.52MHz/1V), 100 ~ 1000μH (1kHz/1V)
 BPSD 030321/ 050432/ 060525/ 060530: 0.15 ~ 8.2μH(7.96MHz/1V), 10 ~ 82μH (2.52MHz/1V), 100 ~ 1000μH (1kHz/1V).
 BPSD 060545/ 080735/ 0807050/ 100940: 1.0 ~ 8.2μH(7.96MHz/1V), 10 ~ 82μH (2.52MHz/1V), 100 ~ 1000μH (1kHz/1V).

L : Agilent/ E4980 or HP4284A (under 1MHz), HP4285A (over 1MHz)

RDC : Chroma 16502

Isat : HP4284+42841A or WK3260B+WK3265B

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CHILISIN ELECTRONICS CORP.

SMD Unshielded Power Inductors - BPSD Series

Standard Specifications

Stamp	Inductance (μH)	Isat (A) Max										
		BPSD 030315	BPSD 030321	BPSD 050432	BPSD 060525	BPSD 060530	BPSD 060545	BPSD 080735	BPSD 080750	BPSD 100940	BPSD 100954	BPSD 100965
R15	0.15			7.5								
R82	0.82		2.200									
1R0	1.0		2.080	3.80	4.50	4.50						
1R2	1.2			3.50		4.20						
1R4	1.4		1.860	3.30	4.00				3.70			
1R5	1.5		1.800			4.10			3.70			
1R8	1.8		1.800	2.91	3.30	3.70	3.50		3.70			
2R2	2.2	0.79	1.390	2.60	2.94	3.50	3.20	3.20	3.70			
2R7	2.7		1.320	2.43	2.50	3.20			3.70			
3R0									3.70			
3R3	3.3	0.73	1.250	2.15	2.35	2.80	2.59		3.70	4.50	2.80	
3R5	3.5						2.40					
3R8	3.8									4.20		
3R9	3.9		1.200	1.98	2.20	2.60			3.70			
4R7	4.7	0.65	1.130	1.70	2.00	2.50	2.30	1.60	3.50		2.60	
5R6	5.6	0.60	0.910	1.60	1.80	2.40			3.30		4.50	
6R2	6.2			1.50								
6R8	6.8	0.77	0.850	1.41	1.70	2.20	1.80		3.10	3.00	4.33	
7R0	7.0		0.820									
8R2	8.2		0.820	1.26	1.40	2.00			2.70		3.50	
100	10	0.45	0.740	1.15	1.20	1.80	1.44	1.44	2.30	2.38	2.60	
120	12		0.640	1.05	1.18	1.75	1.40	1.39	2.00	2.13	2.45	
150	15	0.30	0.600	0.92	1.15	1.70	1.30	1.24	1.80	1.87	2.27	
180	18		0.540	0.84	1.10	1.60	1.23	1.12	1.60	1.73	2.15	
220	22	0.25	0.500	0.76	1.00	1.50	1.11	1.07	1.50	1.60	1.95	3.80
270	27		0.430	0.71	0.86	1.40	0.97	0.94	1.30	1.44	1.76	
330	33	0.20	0.400	0.64	0.76	1.10	0.88	0.85	1.20	1.26	1.50	
390	39	0.17	0.370	0.59	0.75	1.00	0.80	0.74	1.10	1.20	1.37	
470	47	0.17	0.360	0.54	0.73	0.90	0.72	0.68	1.10	1.10	1.28	
500	50		0.330									
560	56		0.310	0.50	0.55	0.85	0.68	0.64	0.94	1.01	1.17	
680	68	0.13	0.300	0.46	0.52	0.80	0.61	0.59	0.85	0.91	1.11	
750	75		0.290									
820	82		0.280		0.50	0.65	0.58	0.54	0.78	0.85	1.00	
101	100	0.10	0.250	0.40	0.40	0.60	0.52	0.51	0.72	0.74	0.97	
121	120		0.200	0.38	0.36	0.58	0.48	0.49	0.66	0.69	0.89	
151	150		0.190	0.30	0.30	0.43	0.40	0.40	0.58	0.61	0.78	
181	180		0.170	0.25	0.26	0.41	0.38	0.36	0.51	0.56	0.72	
221	220	0.07	0.160	0.15	0.25	0.38	0.35	0.31	0.49	0.53	0.66	
271	270		0.140		0.21	0.35	0.29	0.29	0.42	0.45	0.57	
331	330			0.21	0.18	0.28	0.28	0.28	0.40	0.42	0.52	
391	390				0.16	0.26	0.26		0.36	0.38	0.48	
471	470				0.15	0.20	0.12		0.34	0.35	0.42	0.82
561	560				0.14	0.19	0.10	0.14	0.32	0.32	0.33	
681	680				0.13	0.18	0.08		0.29		0.28	
821	820				0.07	0.15	0.05				0.24	
102	1000				0.05	0.13	0.03		0.19		0.20	0.60
122	1200											0.50
152	1500											0.60
202	2000											0.40
222	2200											0.40
602	6000											0.27
822	8200											0.20

Tolerance Of Inductors

- SCD 030315 2.2 ~ 100μH ± 20%
- SCD 030321 1.0 ~ 270μH ± 20%
- SCD 050432 0.15 ~ 27μH ± 20% 33 ~ 100μH ±10%
- SCD 060525 1.0 ~ 27μH ± 20% 33 ~ 1000μH ±10%
- SCD 060530 1.0 ~ 27μH ± 20% 33 ~ 1000μH ±10%
- SCD 060545 1.0~27μH±20% 33~47μH ±15% 56~1000μH±10%
- SCD 080735 10 ~ 27μH ± 20% 33 ~ 330μH ±10%
- SCD 080750 1.4 ~ 27μH ± 20% 33 ~ 470μH ±10%
- SCD 100940 10 ~ 27μH ± 20% 33 ~ 560μH ±10%
- SCD 100954 4.7 ~ 27μH ± 20% 33 ~ 820μH ±10%
- SCD 100965 6000μH ~8200μH±20%

Tolerance: K = ±10% , M = ±20%

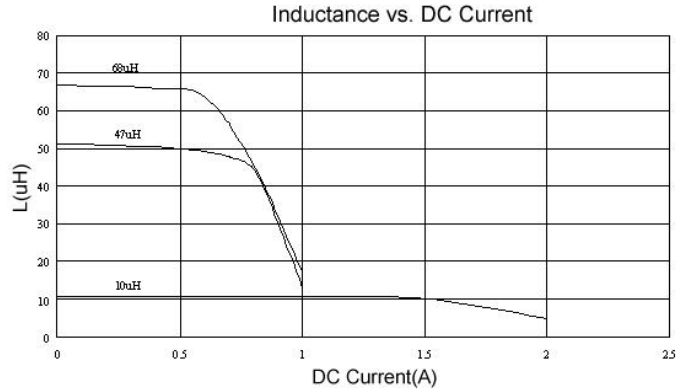
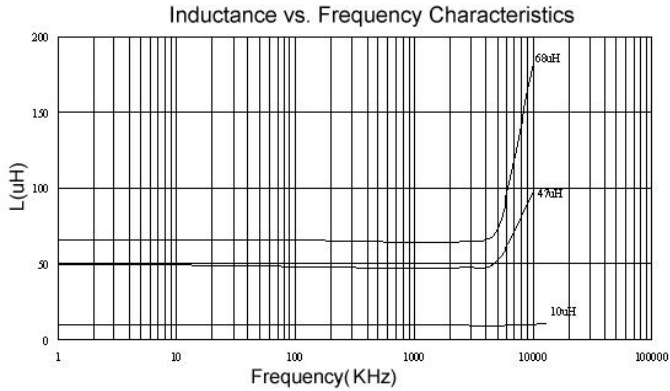
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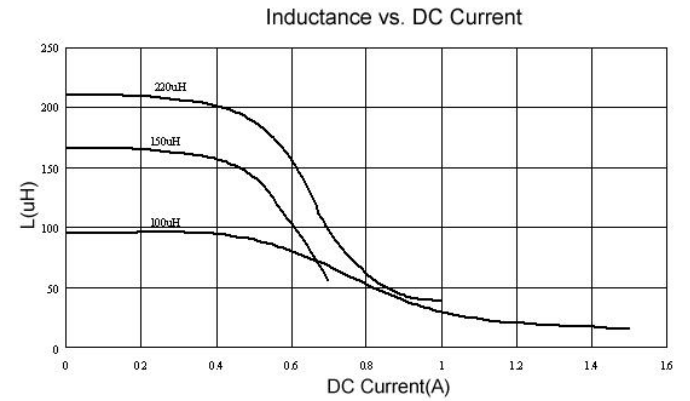
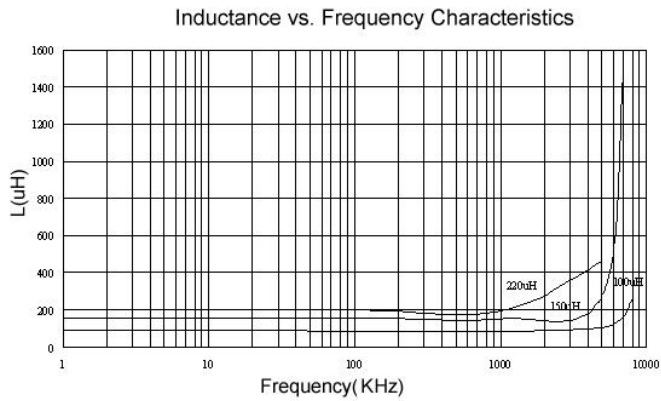
SMD Unshielded Power Inductors - BPSD Series

Test Instruments : HP4294A Impedance / Material Analyzer

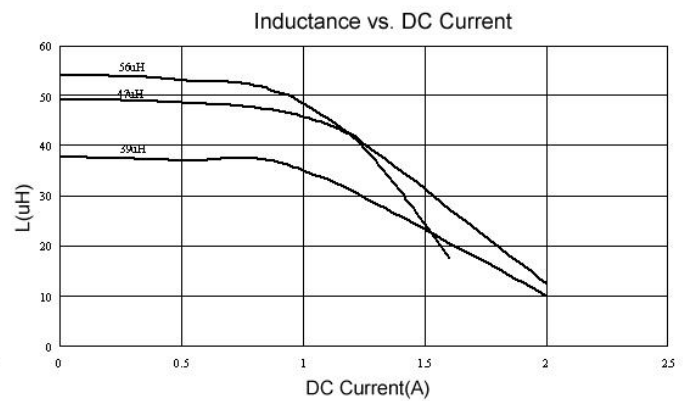
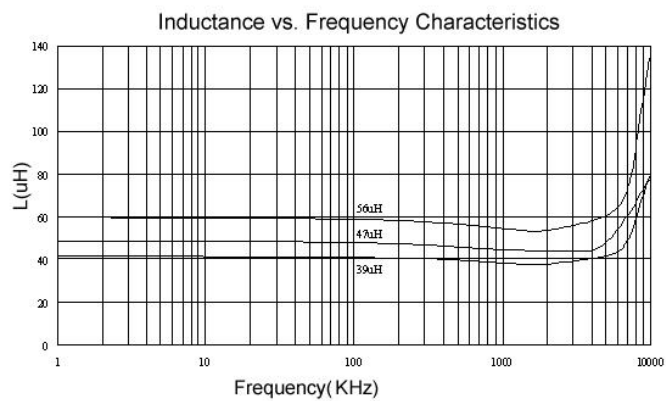
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BPSD00060545



BPSD00080735

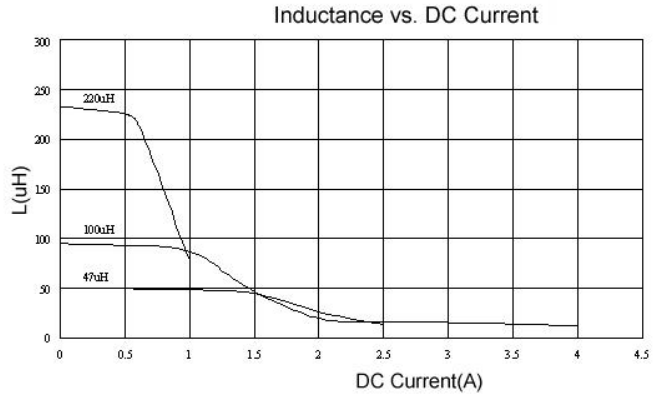
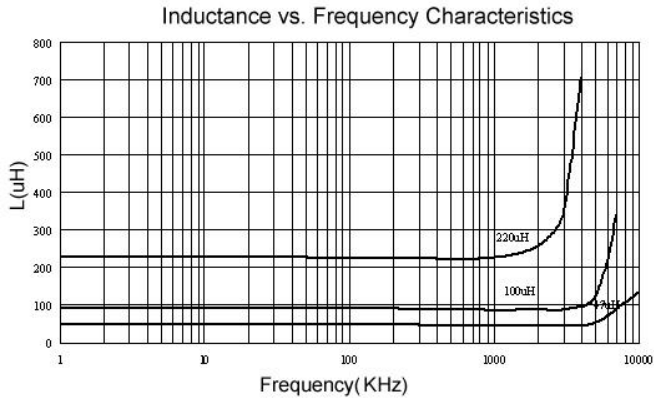


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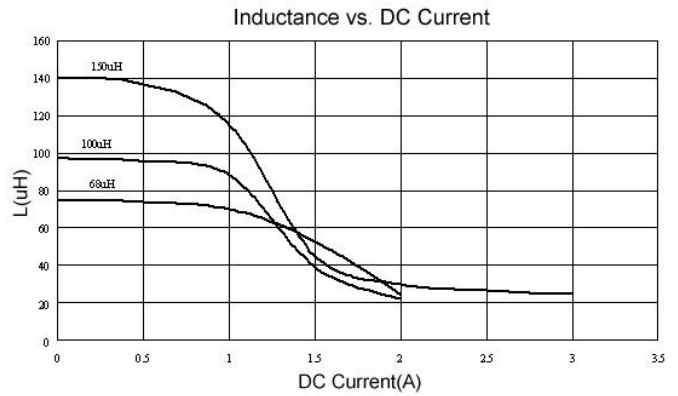
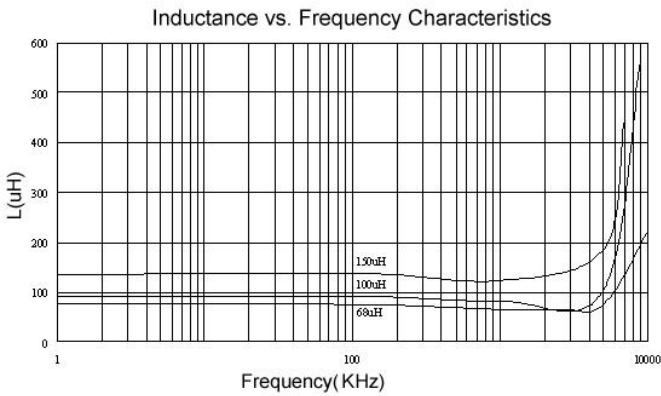
SMD Unshielded Power Inductors - BPSD Series

Test Instruments : HP4294A Impedance / Material Analyzer

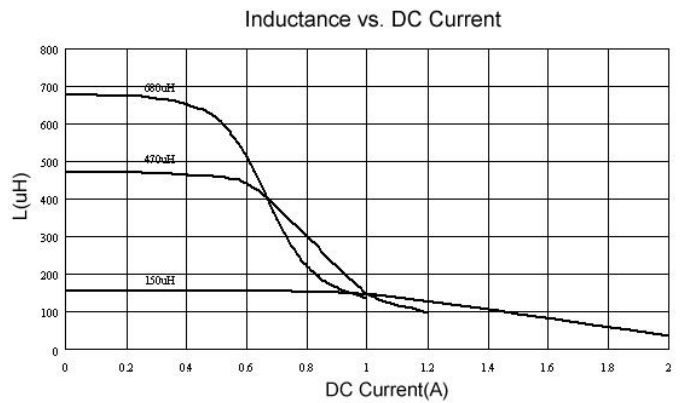
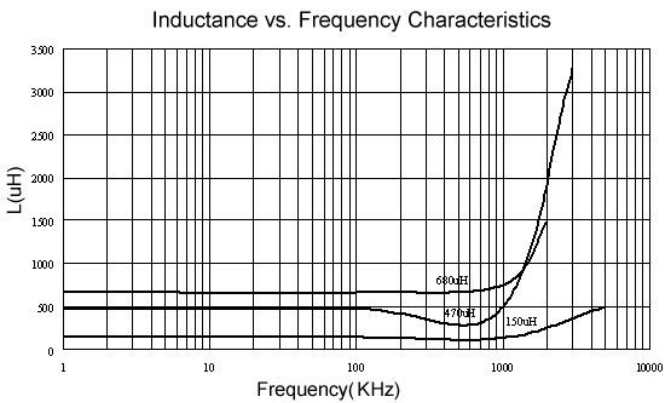
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BPSD00100940



BPSD00100954

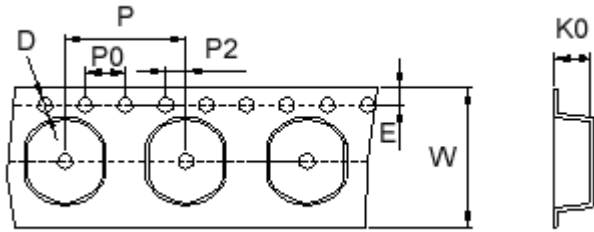


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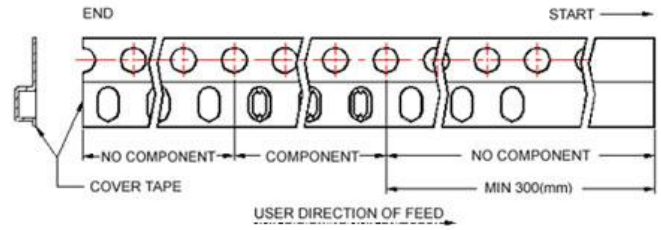
SMD Unshielded Power Inductors - BPSD Series

Packaging Specifications

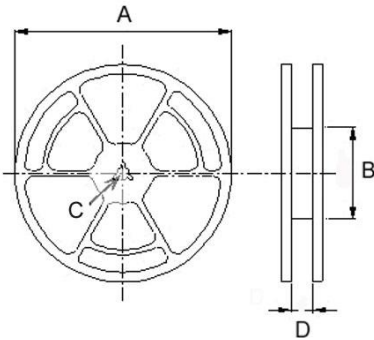
Tape Dimensions



Tape Material



Reel Dimensions



Dimensions in mm

TYPE	Tape Dimensions							Reel Dimensions				Quantity PCS / REEL
	K0	D	E	W	P	P0	P2	A	B	C	D	
BPSD00030315	1.80	1.55	1.75	12	8	4	2	330	100	13	13.4	3000
BPSD00030321	2.50	1.55	1.75	12	8	4	2	330	100	13	13.4	3000
BPSD00050432	3.55	1.55	1.75	12	8	4	2	330	100	13	13.4	2000
BPSD00060525	3.30	1.50	1.75	16	8	4	2	330	100	13	16.0	2000
BPSD00060530	3.30	1.50	1.75	16	8	4	2	330	100	13	16.0	2000
BPSD00060545	4.8	1.55	1.75	16	8	4	2	330	100	13	16.0	1500
BPSD00080735	3.8	1.55	1.75	16	12	4	2	330	100	13	16.0	1000
BPSD00080750	5.2	1.55	1.75	16	12	4	2	330	100	13	16.0	700
BPSD00100940	4.5	1.55	1.75	24	12	4	2	330	100	13	24.4	700
BPSD00100954	5.8	1.55	1.75	24	12	4	2	330	100	13	24.4	700
BPSD00100965	7.0	1.55	1.75	24	12	4	2	330	100	13	24.4	500