

Cautions and Warnings

Please be noted that this spec is only for reference if you have projects designed with the product number listed in. If you are looking for new project design-in, please find BPSC Series specification/datasheet on Chilisin website. Or you may find our sales contact for more information on old part number at your convenience. Appreciated your attention and understanding.

Note: Please be sure to request approval specifications that provide further details of the products. Kindly note that the content of these specifications are subject to change or may be discontinued without prior notice. This product may not be designed/used in medical or high risk applications without Chilisin approval. Please contact our sales department before ordering.

SCDS Series

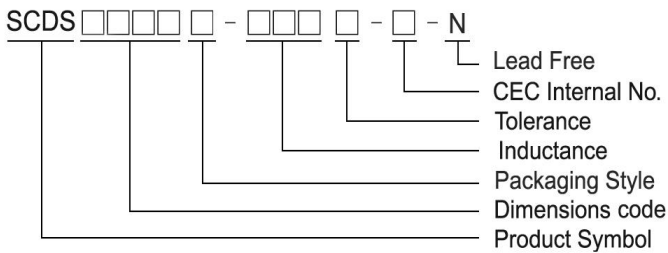
Features

- 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



- T : Packaging: Tape and Reel
- CEC Internal No.: S: Base type terminals

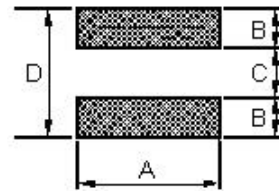
SCDS 3D16T-XXXX-S-N

Shape and Dimensions



Dimensions in mm						Dimension in mm				
TYPE	A	B	C	D	E	TYPE	A	B	C	D
SCDS3D16	4 ⁺⁰	4 ⁺⁰	1.8 ⁺⁰	5.2 ⁺⁰	1.0	SCDS3D16	4.6	1.6	1.4	4.6

Recommended Pattern



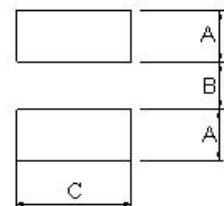
SCDS 4D18 ~ 6D38

Shape and Dimensions



Dimension in mm						Dimension in mm			
TYPE	A	B	C	D	E	TYPE	A	B	C
SCDS4D18	4.7 ± 0.3	4.7 ± 0.3	2.0 ⁺⁰	6.9 ⁺⁰	1.5	SCDS4D18	1.9	1.5	5.3
SCDS4D28	4.7 ± 0.3	4.7 ± 0.3	3.0 ⁺⁰	6.9 ⁺⁰	1.5	SCDS4D28	1.9	1.5	5.3
SCDS4D40	4.7 ± 0.3	4.7 ± 0.3	4 ⁺⁰	6.9 ⁺⁰	1.5	SCDS4D40	1.9	1.5	5.3
SCDS5D18	5.7 ± 0.3	5.7 ± 0.3	2.0 ⁺⁰	8.2 ⁺⁰	2.0	SCDS5D18	2.15	2.0	6.3
SCDS5D28	5.7 ± 0.3	5.7 ± 0.3	3.0 ⁺⁰	8.2 ⁺⁰	2.0	SCDS5D28	2.15	2.0	6.3
SCDS6D28	6.7 ± 0.3	6.7 ± 0.3	3.0 ⁺⁰	9.5 ⁺⁰	2.0	SCDS6D28	2.65	2.0	7.3
SCDS6D38	7 ⁺⁰	7 ⁺⁰	4 ⁺⁰	9.5 ⁺⁰	2.0	SCDS6D38	2.65	2.0	7.3

Recommended Pattern



SMD Shielded Power Inductors - SCDS Series

Standard Specifications

Stamp	Inductance (μ H)	RDC ($m\Omega$) Max								Rated Current (A)							
		SCDS 3D16	SCDS 4D18	SCDS 4D28	SCDS 4D40	SCDS 5D18	SCDS 5D28	SCDS 6D28	SCDS 6D38	SCDS 3D16	SCDS 4D18	SCDS 4D28	SCDS 4D40	SCDS 5D18	SCDS 5D28	SCDS 6D28	SCDS 6D38
1R0	1.0		45			38	15	24			1.72			2.80	3.50	3.50	
1R2	1.2			23.6								2.56					
1R5	1.5	52	60			38	15	19.5		1.55	1.50			2.50	3.00	3.40	
1R8	1.8		70	27.5							1.35	2.20					
2R0	2.0			29.0		45						2.10		2.50			
2R2	2.2	72	75	31.3	22	48	18	35	18	1.20	1.32	2.04	4.6	1.90	2.60	3.00	3.80
2R5	2.5						18								2.60		
2R6	2.6						22								2.40		
2R7	2.7		105	43.3					20		1.28	1.60					3.60
3R0	3.0						24	24							2.40	3.00	
3R3	3.3	85	110	49.2	33	56	27	25	20	1.10	1.04	1.57	3.4	1.90	2.10	3.00	3.50
3R6	3.6	90								0.95							
3R9	3.9		155	64.8					27		0.88	1.44				2.60	
4R1	4.1					57								1.95			
4R2	4.2						31								2.20		
4R3	4.3						41								2.5Typ		
4R7	4.7	105	162	72.0	44	76	38	31	22	0.90	0.84	1.32	2.8	1.60	1.90	2.40	3.10
5R0	5.0						38	31	24						1.90	2.40	2.90
5R3	5.3						38								1.90		
5R4	5.4					76								1.60			
5R6	5.6		170	100.9					27		0.80	1.17					2.50
6R0	6.0							35								2.25	
6R2	6.2					96	45	51	27					1.40	1.80	2.40	2.50
6R3	6.3		180								0.78						
6R8	6.8	170	200	108.9	46	100	50	50	31	0.73	0.76	1.12	2.6	1.35	1.65	2.15	2.30
7R3	7.3							54								2.10	
7R4	7.4								31								2.30
8R2	8.2		245	117.5			53				0.68	1.04			1.60		
8R6	8.6							58								1.85	
8R7	8.7								34								2.20
8R9	8.9					116								1.25			
100	10	210	280	128.3	150	124	65	65	38	0.55	0.61	1.00	1.8	1.20	1.30	1.70	2.00
120	12		320	131.6		153	76	70	53		0.56	0.84		1.10	1.20	1.55	1.70
150	15	295	360	149.0	210	196	103	84	57	0.45	0.50	0.76	1.6	0.97	1.10	1.40	1.60
180	18		400	166.0		210	110	95	92		0.48	0.72		0.85	1.00	1.32	1.50
220	22	430	480	235.0	270	290	122	128	96	0.40	0.41	0.70	1.4	0.80	0.90	1.20	1.30
270	27	620	570	261.0		330	175	142	109	0.35	0.35	0.58		0.75	0.85	1.05	1.20
330	33	675	694	331.3		386	189	165	124	0.32	0.32	0.56		0.65	0.75	0.97	1.10
390	39		800	383.7		520	212	210	138		0.30	0.50		0.57	0.70	0.86	1.00
470	47		950	587.0		595	250	238	150		0.28	0.48		0.54	0.62	0.80	0.95
560	56		1080	624.5		665	305	277	202		0.26	0.41		0.50	0.58	0.73	0.85
680	68	1700	1300	699.0		840	355	304	234	0.18	0.24	0.35		0.43	0.52	0.65	0.75
820	82			914.8		978	463	390	324			0.32		0.41	0.46	0.60	0.70
101	100		2000	1020		1200	520	535	358		0.20	0.29		0.36	0.42	0.54	0.65
121	120			1270								0.27					
151	150		2840	1350							0.15	0.24					
181	180			1540			1050					0.22			0.29		
221	220	5500		2000			1200			0.08		0.20			0.28		
331	330			3400			1700					0.19			0.19		
391	390			3560			1800					0.18			0.18		
471	470						2500								0.15		
561	560						3200		1800						0.12		0.22
681	680			5200								0.10					

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SMD Shielded Power Inductors - SCDS Series

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
- Measure Equipment :
Test Freq L : SCDS 3D16(100kHz/ 0.1V) , 4D28/ 4D40 (100kHz/ 1V) , SCDS 5D18/ 5D28/ 6D28/ 6D38 (10kHz/ 1V)
SCDS 4D18: 1.0~8.2 μH (7.96MHz/ 1V), 10~150 μH (100kHz/ 1V)

L : Agilent/ E4980 or HP4284A

RDC : Chroma 16502

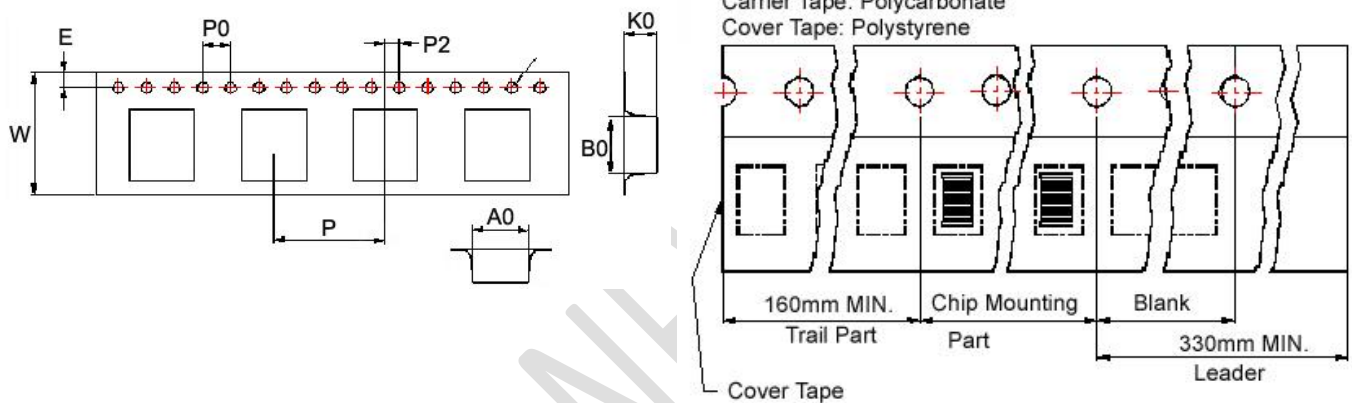
Rated Current : HP4284+42841A or WK3260B+WK3265B

Tolerance Of Inductors

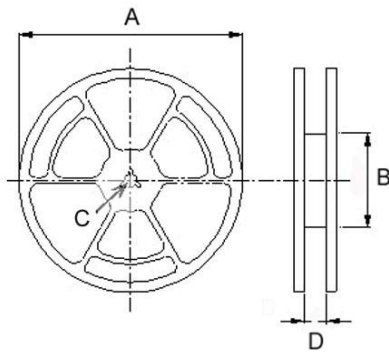
- SCDS 3D16 1.5 ~ 220 μH ± 30%
- SCDS 4D18 1.0 ~ 150 μH ± 30%
- SCDS 4D28 1.2 ~ 680 μH ± 30%
- SCDS 4D40 2.2 ~ 22 μH ± 30%
- SCDS 5D18 1.0 ~ 100 μH ± 30%
- SCDS 5D28 1.0 ~ 560 μH ± 30%
- SCDS 6D28 1.0 ~ 100 μH ± 30%
- SCDS 6D38 2.2 ~ 560 μH ± 30%
- Tolerance : M = ±20% , T = ±30% , N = ⁺⁴⁰/₋₂₀%

Packaging Specifications

Tape Dimensions



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	
SCDS 3D16	4.1	4.1	2.0	1.5	1.75	12	8	4	2	178	60	13	13.2	1000
SCDS 4D18	5.3	5.3	2.4	1.5	1.75	12	8	4	2	330	100	13	13.4	2000
SCDS 4D28	5.3	5.3	3.4	1.5	1.75	12	8	4	2	330	100	13	13.4	2000
SCDS 4D40	5.35	5.35	4.1	1.55	1.75	12	8	4	2	330	100	13	13.4	1000
SCDS 5D18	6.2	6.2	2.2	1.5	1.75	12	8	4	2	330	100	13	13.4	2000
SCDS 5D28	6.2	6.2	3.2	1.5	1.75	12	8	4	2	330	100	13	13.4	2000
SCDS 6D28	7.25	7.25	3.35	1.55	1.75	16	12	4	2	330	100	13	16.0	1500
SCDS 6D38	7.1	7.1	4.1	1.55	1.75	16	12	4	2	330	100	13	16.0	1000

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