SCDS Series

Shielded SMD Power Inductors

APPLICATIONS

- Power Supply for VTRs
- OA Equipment
- LCD Televisions
- Notebook PCs
- Portable Communication Equipment
- DC / DC Converters, etc.

PRODUCT IDENTIFICATION

SCDS□□□□ □·□□□□·□

- International No.
- Tolerance
- Inductance
- Packaging Style
- Dimensions
- Product Symbol

- T : Packing : Tape and Reel
- HP : Low DCR
- LD : High Power
- Tolerance : K=±10% M=±20% T=±30%
- Internal No.: B: Silver plated terminals (3D12~6D38); S: Base type terminals (2D11~2D18HP & 62T&127)
- Note : YAGEO will start to release lead-free terminals that meet SONY SS-00259's criterial and YAGEO Internal No will changed to "N" as identification.

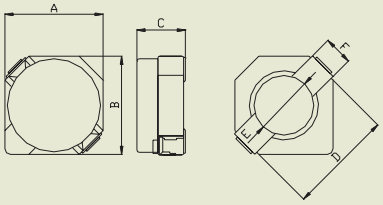
FEATURES

- Available in Magnetically Dhielded
- Low DC Resistance
- Suitable for Large Currents
- Ideal for a Variety of DC - DC Converter Inductor Applications
- Available on Tape and Reel for Auto Surface Mounting

SHAPES AND DIMENSIONS

Dimensions : mm

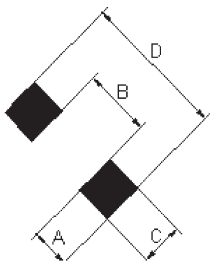
SCDS2D11/2D14
/2D18LD/2D18HP



Dimensions in mm

TYPE	A	B	C	D	E	F
SCDS2D11	3.2^{+0}	3.2^{+0}	1.2^{+0}	3.3	2.1	1.0
SCDS2D14	3.2^{+0}	3.2^{+0}	1.55^{+0}	3.3	2.1	1.0
SCDS2D18LD	3.2^{+0}	3.2^{+0}	2.0^{+0}	3.3	2.1	1.0
SCDS2D18HP	3±0.3	3±0.3	2.0^{+0}	3.3	2.1	1.0

RECOMMENDED PATTERN



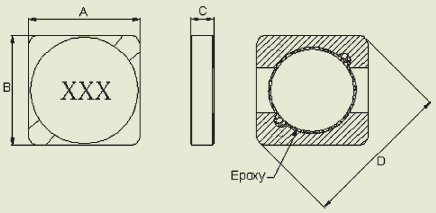
Dimensions in mm

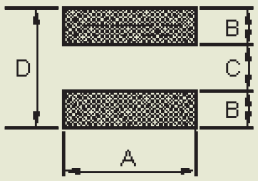
TYPE	A	B	C	D
S CDS 2D11	1.3	1.7	1.3	4.3
S CDS 2D14	1.3	1.7	1.3	4.3
S CDS 2D18LD	1.3	1.7	1.3	4.3
S CDS 2D18HP	1.3	1.7	1.3	4.3

SHAPES AND DIMENSIONS

RECOMMENDED PATTERN

SCDS 3D12





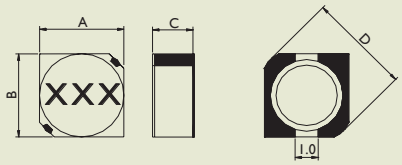
Dimensions in mm

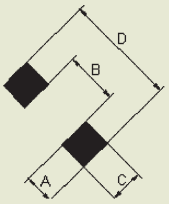
TYPE	A		B		C	D
SCDS3D12	3.9	0.2	3.9	0.2	1.2 Max	6.2 Max

Dimensions in mm

TYPE	A	B	C	D
SCDS3D12	4.6	1.6	1.4	4.6

SCDS 3D16





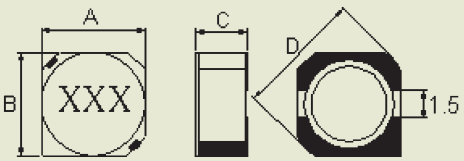
Dimensions in mm

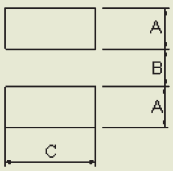
TAPE	A	B	C	D
SCDS3D16	4 Max.	4 Max.	1.8 Max.	5.2 Max.

Dimensions in mm

TYPE	A	B	C	D
SCDS3D16	1.4	2.4	1.5	5.2

SCDS 4D18~6D38



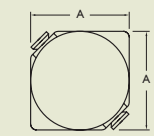


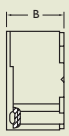
Dimensions in mm

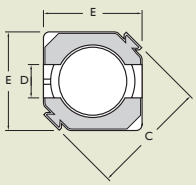
TAPE	A		B		C	D
SCDS4D18	4.7	0.3	4.7	0.3	2.0 Max	6.9 Max
SCDS4D28	4.7	0.3	4.7	0.3	3.0 Max	6.9 Max

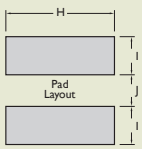
Dimensions in mm

TYPE	A	B	C
S CDS 4D18	1.9	1.5	5.3
S CDS 4D28	1.9	1.5	5.3









ITEM	A	B	C	D	E	H	I	J
5D18	5.7 ± 0.3	2.0 Max.	8.2 Max.	1.5	5.7±0.3	6.3	2.15	2.0
5D28	5.7 ± 0.3	3.0 Max.	8.2 Max.	1.5	5.7±0.3	6.3	2.15	2.0
6D28	6.7 ± 0.3	3.0 Max.	9.5 Max.	1.5	6.7±0.3	7.3	2.65	2.0
6D38	7.0 ± 0.0	4.0 Max.	9.5 Max.	1.5	7.0±0.0	7.3	2.65	2.0

ELECTRICAL CHARACTERISTICS

Standard Specifications

Stamp	Inductance (H)	D.C.R.(mΩ)Max.												RatedCurrent(A)Max.											
		SCDS 2D11	SCDS 2D14	SCDS 2D18LD	SCDS 2D18HP	SCDS 3D12	SCDS 3D16	SCDS 4D18	SCDS 4D28	SCDS 5D18	SCDS 5D28	SCDS 6D28	SCDS 6D38	SCDS 2D11	SCDS 2D14	SCDS 2D18LD	SCDS 2D18HP	SCDS 3D12	SCDS 3D16	SCDS 4D18	SCDS 4D28	SCDS 5D18	SCDS 5D28	SCDS 6D28	SCDS 6D38
R47			40												2										
1R0	1.0					40.1±30%		45										1.54		1.72					
1R2	1.2								23.6												2.56				
1R5	1.5	68	63			63.5±30%	52							0.90	1.80			1.32	1.55						
1R7					44												1.85								
1R8	1.8		75						27.5						1.65						2.20				
2R2	2.2	98	94	41	60	83.5±30%	72	75	31.3					0.78	1.50	0.85	1.6	1.12	1.20	1.32	2.04				
2R4	2.4																								
2R5	2.5										18												2.60		
2R7	2.7		106					105	43.3	52					1.35					1.28	1.60	2.1			
3R0	3.0										24	24											2.40	3.00	
3R3	3.3	123	125	54	86	122±30%	85	110	49.2				20	0.60	1.20	0.75	1.45	0.90	1.10	1.04	1.57				3.50
3R5	3.5																								
3R8	3.8																								
3R9	3.9	160	138					155	64.8			27		0.60	1.10					0.88	1.44			2.60	
4R1	4.1									57												1.95			
4R2	4.2										31												2.20		
4R7	4.7	170	169	78	140	172±30%	105	162	72.0		38	31	22	0.50	1.00	0.63	1.2	0.72	0.90	0.84	1.32		1.90	2.40	3.10
5R0	5.0											31	24											2.40	2.90
5R2	5.2																								
5R3	5.3										38												1.90		
5R4	5.4									76												1.60			
5R5	5.5																								
5R6	5.6		188			191±30%		170	100.9			35			0.95			0.66		0.80	1.17			2.25	
6R0	6.0											35												2.25	
6R1	6.1																								
6R2	6.2									96	45		27									1.40	1.80		2.50
6R3					160												1.05								
6R8	6.8	260	213	106		218±30%	170	200	108.9	100	50	52	29	0.44	0.85	0.52		0.60	0.73	0.76	1.12	1.55	1.65	2.10	2.40
7R0	7.0																								
7R3	7.3											54												2.10	
7R4	7.4												31												2.30
7R6	7.6																								
8R2	8.2		281			255±30%		245	117.5		53				0.80			0.57		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	400	294	180	245	4083±0%	210	280	128.3	124	65	65	38	0.35	0.70	0.43	0.85	0.49	0.55	0.61	1.00	1.20	1.30	1.70	2.00
120	12		394			462±30%		320	131.6	153	76	70	53		0.62			0.47		0.56	0.84	1.10	1.20	1.55	1.70
150	15			220	345	502±30%	295	360	149.0	196	103	84	57			0.35	0.7	0.41	0.45	0.50	0.76	0.97	1.10	1.40	1.60
180	18					573±30%		400	166.0	210	110	95	92					0.37		0.48	0.75	0.85	1.00	1.32	1.50
220	22	950		320		801±30%	430	480	235.0	290	122	128	96	0.16		0.30		0.34	0.40	0.41	0.70	0.80	0.90	1.20	1.30
270	27					1207±30%	620	570	261.0	330	175	142	109					0.30	0.62	0.35	0.58	0.75	0.85	1.05	1.20
330	33			460		1358±30%	675	694	331.3	386	189	165	124			0.24		0.28	0.32	0.32	0.56	0.65	0.75	0.97	1.10
390	39					1911±30%		800	383.7	520	212	210	138					0.23		0.30	0.50	0.57	0.70	0.86	1.00
470	47			660			1240	950	587.0	595	250	238	150			0.20			0.26	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							1300	699.0	840	355	304	234							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								1020	1200	520	535	358								0.29	0.36	0.42	0.54	0.65
121	120								1270	1600											0.27	0.32			
151	150								1350	1800											0.24	0.30			
181	180								1540												0.22				
221	220																								
271	270																								
331	330																								
391	390																								
471	470																								

• Test Freq.(L): SCDS3D12/3D16:(100KHz/0.1V)
SCDS4D18: 1.0 ~ 8.2H(7.96MHz/1V), 10 ~ 39H(100KHz/1V)
SCDS2D11/2D14/2D18LD/4D28/104R/124: (100KHz/1V)
SCDS5D18/5D28/6D28: (10KHz/1V)
SCDS6D38: (10KHz/0.1V)
SCDS62: 3.3 ~ 8.2H(7.96MHz/1V), 10~82H(2.52MHz/1V), 100 ~ 330H(1KHz/1V)

• SCDS3D12 Rated current : It makes rated current either when the value with 30% declining inductance or the generation of heat becomes 30% near value by the rising one above another of thedirect current.

• Other type Rated current :The rate current indicastes the current when the inductance decreases to 65%. Over of it's nominal value or D.C.current when the temperature rising Dt =40°C lower, whichever is lower.

• Test Instrument :L : HP4192A LF IMPEDANCE ANALYZER
RDC : CHEN HWA 502BC
Rated current: HP4284+42841A or Ch1061+CH301A

Tolerance Of Inductors

• SCDS2D11 1.5~10H 30%(T)
• SCDS2D14 1.5~12H 30%(T)• SCDS2D18LD 2.2~4.7H 30%(T)
• SCDS3D12 1.0~39H 30%(T)
• SCDS3D16 1.5~33H 30%(T)
• SCDS4D18 1.0~68H 30%(T)
• SCDS4D28 1.2~180H 30%(T)
• SCDS5D18 4.1~100H 30%(T)
• SCDS5D28 2.5~100H 30%(T)
• SCDS6D28 3.0~100H 30%(T)
• SCDS6D38 3.3~100H 30%(T)

ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

TYPE	Inductance(μH)	Test Freq	RDC(Ω)	Rated Current(A)Max	Irms(A)Typ	Tolerance
SCDS2D11T-1R5 □-N	1.5	100KHz,1V	0.068+0	0.9	1.48	T
SCDS2D11T-2R2 □-N	2.2	100KHz,1V	0.098+0	0.78	1.27	T
SCDS2D11T-3R3 □-N	3.3	100KHz,1V	0.123+0	0.6	1.02	T
SCDS2D11T-3R9 □-N	3.9	100KHz,1V	0.160+0	0.6	-	T
SCDS2D11T-4R7 □-N	4.7	100KHz,1V	0.170+0	0.5	0.88	T
SCDS2D11T-6R8 □-N	6.8	100KHz,1V	0.260+0	0.44	0.8	T
SCDS2D11T-100 □-N	10	100KHz,1V	0.400+0	0.35	0.65	M,T
SCDS2D11T-220 □-N	22	100KHz,1V	0.950+0	0.16	-	M,T

NOTE : □-tolerance M=±20% / T=±30%

1.Operating temperature range -40°C~85°C(Includes temperature when the coil is heated)

2.Rate current: Inductance drop = 35% typ.

3.Irms:Δt=40°C

"-N" FOR COMPLETELY LEAD FREE TYPE(INCLUDING FERRITE BODY & SOLDER)

ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

TYPE	Inductance(μH)	Test Freq	RDC(Ω)	Rated Current(A)Max	Irms(A)Typ	Tolerance
SCDS2D14T-R47 □-N	0.47	100KHz,1V	0.040+0	2	-	T
SCDS2D14T-1R5 □-N	1.5	100KHz,1V	0.063+0	1.8	2	T
SCDS2D14T-1R8 □-N	1.8	100KHz,1V	0.075+0	1.65	1.8	T
SCDS2D14T-2R2 □-N	2.2	100KHz,1V	0.094+0	1.5	1.6	T
SCDS2D14T-2R7 □-N	2.7	100KHz,1V	0.106+0	1.35	1.4	T
SCDS2D14T-3R3 □-N	3.3	100KHz,1V	0.125+0	1.2	1.24	T
SCDS2D14T-3R9 □-N	3.9	100KHz,1V	0.138+0	1.1	1.12	T
SCDS2D14T-4R7 □-N	4.7	100KHz,1V	0.169+0	1	1	M,T
SCDS2D14T-5R6 □-N	5.6	100KHz,1V	0.188+0	0.95	0.98	M,T
SCDS2D14T-6R8 □-N	6.8	100KHz,1V	0.213+0	0.85	0.92	M,T
SCDS2D14T-8R2 □-N	8.2	100KHz,1V	0.281+0	0.8	0.8	M,T
SCDS2D14T-100 □-N	10	100KHz,1V	0.294+0	0.7	0.76	M,T
SCDS2D14T-120 □-N	12	100KHz,1V	0.394+0	0.62	0.64	M,T

NOTE : □-tolerance M=±20% / T=±30%

1.Operating temperature range -40°C~85°C(Includes temperature when the coil is heated)

2.Rate current: Inductance drop = 35% typ.

3.Irms:Δt=40°C

"-N" FOR COMPLETELY LEAD FREE TYPE(INCLUDING FERRITE BODY & SOLDER)

ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

TYPE	Inductance(μH)	Test Freq	RDC(Ω)	Rated Current(A)Max	Irms(A)Typ	Tolerance
SCDS2D18LD-2R2 □-N	2.2	100KHz,1V	0.041+0	0.85	2.3	M,T
SCDS2D18LD-3R3 □-N	3.3	100KHz,1V	0.054+0	0.75	2.1	M,T
SCDS2D18LD-4R7 □-N	4.7	100KHz,1V	0.078+0	0.63	1.65	M,T
SCDS2D18LD-6R8 □-N	6.8	100KHz,1V	0.106+0	0.52	1.32	M,T
SCDS2D18LD-100 □-N	10	100KHz,1V	0.180+0	0.43	1	M,T
SCDS2D18LD-150 □-N	15	100KHz,1V	0.220+0	0.35	0.8	M,T
SCDS2D18LD-220 □-N	22	100KHz,1V	0.320+0	0.3	0.68	M,T
SCDS2D18LD-330 □-N	33	100KHz,1V	0.460+0	0.24	0.56	M,T
SCDS2D18LD-470 □-N	47	100KHz,1V	0.660+0	0.2	0.48	M,T

NOTE : □-tolerance M=±20% / T=±30%

1.Operating temperature range -40°C~85°C(Includes temperature when the coil is heated)

2.Rate current: Inductance drop = 35% typ.

3.Irms:Δt=40°C

"-N" FOR COMPLETELY LEAD FREE TYPE(INCLUDING FERRITE BODY & SOLDER)

ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

TYPE	Inductance(μH)	Test Freq	RDC(Ω)	Rated Current(A)Max	Irms(A)Typ	Tolerance
SCDS2D18HP-1R7 □-N	1.7	100KHz,1V	0.044+0	1.85	2.2	M,T
SCDS2D18HP-2R2 □-N	2.2	100KHz,1V	0.060+0	1.6	1.9	M,T
SCDS2D18HP-3R3 □-N	3.3	100KHz,1V	0.086+0	1.45	1.55	M,T
SCDS2D18HP-4R7 □-N	4.7	100KHz,1V	0.140+0	1.2	1.2	M,T
SCDS2D18HP-6R3 □-N	6.3	100KHz,1V	0.160+0	1.05	1.15	M,T
SCDS2D18HP-100 □-N	10	100KHz,1V	0.245+0	0.85	0.9	M,T
SCDS2D18HP-150 □-N	15	100KHz,1V	0.345+0	0.7	0.64	M,T

NOTE : □-tolerance M=±20% / T=±30%

1.Operating temperature range -40°C~85°C(Includes temperature when the coil is heated)

2.Rate current: Inductance drop = 35% typ.

3.Irms:Δt=40°C

"-N" FOR COMPLETELY LEAD FREE TYPE(INCLUDING FERRITE BODY & SOLDER)

ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

TYPE	Inductance(μH)	Test Freq	RDC(Ω)Max	Rated current(A)Max
SCDS3D12T-1R0 □-N	1	10KHz,0.1V	0.0401±30%	1.54
SCDS3D12T-1R5 □-N	1.5	10KHz,0.1V	0.0635±30%	1.32
SCDS3D12T-2R2 □-N	2.2	10KHz,0.1V	0.0835±30%	1.12
SCDS3D12T-3R3 □-N	3.3	10KHz,0.1V	0.122±30%	0.9
SCDS3D12T-4R7 □-N	4.7	10KHz,0.1V	0.172±30%	0.72
SCDS3D12T-5R6 □-N	5.6	10KHz,0.1V	0.191±30%	0.66
SCDS3D12T-6R8 □-N	6.8	10KHz,0.1V	0.218±30%	0.6
SCDS3D12T-8R2 □-N	8.2	10KHz,0.1V	0.255±30%	0.57
SCDS3D12T-100 □-N	10	10KHz,0.1V	0.408±30%	0.49
SCDS3D12T-120 □-N	12	10KHz,0.1V	0.462±30%	0.47
SCDS3D12T-150 □-N	15	10KHz,0.1V	0.502±30%	0.41
SCDS3D12T-180 □-N	18	10KHz,0.1V	0.573±30%	0.37
SCDS3D12T-220 □-N	22	10KHz,0.1V	0.801±30%	0.34
SCDS3D12T-270 □-N	27	10KHz,0.1V	1.207±30%	0.3
SCDS3D12T-330 □-N	33	10KHz,0.1V	1.358±30%	0.28
SCDS3D12T-390 □-N	39	10KHz,0.1V	1.911±30%	0.23

NOTE : □-tolerance T=±30%

1.Operating temperature range -40°C~85°C(Includes temperature when the coil is heated)

2.Rate current: The rate current indicates the current when the inductance decreases to 70% over of it's nominal value or D.C.current when the temperature rising Δ T=40°C lower, whichever is lower.

"-N" FOR COMPLETELY LEAD FREE TYPE(INCLUDING FERRITE BODY & SOLDER)

ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

TYPE	Inductance(μH)	Test Freq	RDC(Ω)Max	Rated current(A)Max
SCDS3D16T-1R5 □-B-N	1.5	100KHz,0.1V	0.052+0	1.55
SCDS3D16T-2R2 □-B-N	2.2	100KHz,0.1V	0.072+0	1.2
SCDS3D16T-3R3 □-B-N	3.3	100KHz,0.1V	0.085+0	1.1
SCDS3D16T-4R7 □-B-N	4.7	100KHz,0.1V	0.105+0	0.9
SCDS3D16T-6R8 □-B-N	6.8	100KHz,0.1V	0.170+0	0.73
SCDS3D16T-100 □-B-N	10	100KHz,0.1V	0.210+0	0.55
SCDS3D16T-150 □-B-N	15	100KHz,0.1V	0.295+0	0.45
SCDS3D16T-220 □-B-N	22	100KHz,0.1V	0.430+0	0.4
SCDS3D16T-270 □-B-N	27	100KHz,0.1V	0.620+0	0.62
SCDS3D16T-330 □-B-N	33	100KHz,0.1V	0.675+0	0.32
SCDS3D16T-470 □-B-N	47	100KHz,0.1V	1.240+0	0.26

NOTE : □-tolerance T=±30%

1.Operating temperature range -40°C~85°C(Includes temperature when the coil is heated)

2.Rate current: The rate current indicates the current when the inductance decreases to 70% over of it's nominal value or D.C.current when the temperature rising ΔT=40°C lower, whichever is lower.

"-N" FOR COMPLETELY LEAD FREE TYPE(INCLUDING FERRITE BODY & SOLDER)

ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

TYPE	Inductance(μH)	Test Freq	RDC(Ω)Max	Rated current(A)Max
SCDS4D28T-1R0 □-B-N	1	7.96MHz,1V	0.045+0	1.72
SCDS4D28T-2R2 □-B-N	2.2	7.96MHz,1V	0.075+0	1.32
SCDS4D28T-2R7 □-B-N	2.7	7.96MHz,1V	0.105+0	1.28
SCDS4D28T-3R3 □-B-N	3.3	7.96MHz,1V	0.110+0	1.04
SCDS4D28T-3R9 □-B-N	3.9	7.96MHz,1V	0.155+0	0.88
SCDS4D28T-4R7 □-B-N	4.7	7.96MHz,1V	0.162+0	0.84
SCDS4D28T-5R6 □-B-N	5.6	7.96MHz,1V	0.170+0	0.8
SCDS4D28T-6R8 □-B-N	6.8	7.96MHz,1V	0.200+0	0.76
SCDS4D28T-8R2 □-B-N	8.2	7.96MHz,1V	0.245+0	0.68
SCDS4D28T-100 □-B-N	10	7.96MHz,1V	0.280+0	0.61
SCDS4D28T-120 □-B-N	12	7.96MHz,1V	0.320+0	0.56
SCDS4D28T-150 □-B-N	15	7.96MHz,1V	0.360+0	0.5
SCDS4D28T-180 □-B-N	18	7.96MHz,1V	0.400+0	0.48
SCDS4D28T-220 □-B-N	22	7.96MHz,1V	0.480+0	0.41
SCDS4D28T-270 □-B-N	27	7.96MHz,1V	0.570+0	0.35
SCDS4D28T-330 □-B-N	33	7.96MHz,1V	0.694+0	0.32
SCDS4D28T-390 □-B-N	39	7.96MHz,1V	0.800+0	0.3
SCDS4D28T-470 □-B-N	47	7.96MHz,1V	0.950+0	0.28
SCDS4D28T-560 □-B-N	56	7.96MHz,1V	1.080+0	0.26
SCDS4D28T-680 □-B-N	68	7.96MHz,1V	1.300+0	0.24

NOTE : □-tolerance T=±30%

1.Operating temperature range -40°C~85°C(Includes temperature when the coil is heated)

2.Rate current: The rate current indicates the current when the inductance decreases to 70% over of it's nominal value or D.C.current when the temperature rising ΔT=40°C lower, whichever is lower.

"-N" FOR COMPLETELY LEAD FREE TYPE(INCLUDING FERRITE BODY & SOLDER)

ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

TYPE	Inductance(μH)	Test Freq	RDC(Ω)Max	Rated current(A)Max
SCDS4D28T-1R2 □-B-N	1.2	100KHz,1V	0.0236+0	2.56
SCDS4D28T-1R8 □-B-N	1.8	100KHz,1V	0.0275+0	2.2
SCDS4D28T-2R2 □-B-N	2.2	100KHz,1V	0.0313+0	2.04
SCDS4D28T-2R7 □-B-N	2.7	100KHz,1V	0.0433+0	1.6
SCDS4D28T-3R3 □-B-N	3.3	100KHz,1V	0.0492+0	1.57
SCDS4D28T-3R9 □-B-N	3.9	100KHz,1V	0.0648+0	1.44
SCDS4D28T-4R7 □-B-N	4.7	100KHz,1V	0.0720+0	1.32
SCDS4D28T-5R6 □-B-N	5.6	100KHz,1V	0.1009+0	1.17
SCDS4D28T-6R8 □-B-N	6.8	100KHz,1V	0.1089+0	1.12
SCDS4D28T-8R2 □-B-N	8.2	100KHz,1V	0.1175+0	1.04
SCDS4D28T-100 □-B-N	10	100KHz,1V	0.1283+0	1
SCDS4D28T-120 □-B-N	12	100KHz,1V	0.1316+0	0.84
SCDS4D28T-150 □-B-N	15	100KHz,1V	0.1490+0	0.76
SCDS4D28T-180 □-B-N	18	100KHz,1V	0.1660+0	0.72
SCDS4D28T-220 □-B-N	22	100KHz,1V	0.2350+0	0.7
SCDS4D28T-270 □-B-N	27	100KHz,1V	0.2610+0	0.58
SCDS4D28T-330 □-B-N	33	100KHz,1V	0.3313+0	0.56
SCDS4D28T-390 □-B-N	39	100KHz,1V	0.3837+0	0.5
SCDS4D28T-470 □-B-N	47	100KHz,1V	0.5870+0	0.48
SCDS4D28T-560 □-B-N	56	100KHz,1V	0.6245+0	0.41
SCDS4D28T-680 □-B-N	68	100KHz,1V	0.6990+0	0.35
SCDS4D28T-820 □-B-N	82	100KHz,1V	0.9140+0	0.32
SCDS4D28T-101 □-B-N	100	100KHz,1V	1.0200+0	0.29
SCDS4D28T-121 □-B-N	120	100KHz,1V	1.2700+0	0.27
SCDS4D28T-151 □-B-N	150	100KHz,1V	1.3500+0	0.24
SCDS4D28T-181 □-B-N	180	100KHz,1V	1.5400+0	0.22

NOTE : □-tolerance T=±30%

1.Operating temperature range -40°C~85°C(Includes temperature when the coil is heated)

2.Rate current: The rate current indicates the current when the inductance decreases to 70% over of it's nominal value or D.C.current when the temperature rising ΔT=40°C lower, whichever is lower.

"-N" FOR COMPLETELY LEAD FREE TYPE(INCLUDING FERRITE BODY & SOLDER)

ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

TYPE	Inductance(μH)	Test Freq	RDC(Ω)Max	Rated current(A)Max
SCDS5D18T-2R7 □-B-N	2.7	10KHz,1V	0.052+0	2.1
SCDS5D18T-4R1 □-B-N	4.1	10KHz,1V	0.057+0	1.95
SCDS5D18T-5R4 □-B-N	5.4	10KHz,1V	0.076+0	1.6
SCDS5D18T-6R2 □-B-N	6.2	10KHz,1V	0.096+0	1.4
SCDS5D18T-6R8 □-B-N	6.8	10KHz,1V	0.100+0	1.35
SCDS5D18T-8R9 □-B-N	8.9	10KHz,1V	0.116+0	1.25
SCDS5D18T-100 □-B-N	10	10KHz,1V	0.124+0	1.2
SCDS5D18T-120 □-B-N	12	10KHz,1V	0.153+0	1.1
SCDS5D18T-150 □-B-N	15	10KHz,1V	0.196+0	0.97
SCDS5D18T-180 □-B-N	18	10KHz,1V	0.210+0	0.85
SCDS5D18T-220 □-B-N	22	10KHz,1V	0.290+0	0.8
SCDS5D18T-270 □-B-N	27	10KHz,1V	0.330+0	0.75
SCDS5D18T-330 □-B-N	33	10KHz,1V	0.386+0	0.65
SCDS5D18T-390 □-B-N	39	10KHz,1V	0.520+0	0.57
SCDS5D18T-470 □-B-N	47	10KHz,1V	0.595+0	0.54
SCDS5D18T-560 □-B-N	56	10KHz,1V	0.665+0	0.5
SCDS5D18T-680 □-B-N	68	10KHz,1V	0.840+0	0.43
SCDS5D18T-820 □-B-N	82	10KHz,1V	0.978+0	0.41
SCDS5D18T-101 □-B-N	100	10KHz,1V	1.200+0	0.36
SCDS5D18T-121 □-B-N	120	10KHz,1V	1.600+0	0.32
SCDS5D18T-151 □-B-N	150	10KHz,1V	1.800+0	0.3

NOTE : □-tolerance T=±30%

1.Operating temperature range -40°C~85°C(Includes temperature when the coil is heated)

2.Rate current: The rate current indicates the current when the inductance decreases to 70% over of it's nominal value or D.C.current when the temperature rising ΔT=40°C lower, whichever is lower.

"-N" FOR COMPLETELY LEAD FREE TYPE(INCLUDING FERRITE BODY & SOLDER)

ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

TYPE	Inductance(μH)	Test Freq	RDC(Ω)Max	Rated current(A)Max
SCDS5D28T-2R5 □ -B-N	2.5	10KHz,1V	0.018+0	2.6
SCDS5D28T-3R0 □ -B-N	3	10KHz,1V	0.024+0	2.4
SCDS5D28T-4R2 □ -B-N	4.2	10KHz,1V	0.031+0	2.2
SCDS5D28T-4R7 □ -B-N	4.7	10KHz,1V	0.038+0	1.9
SCDS5D28T-5R3 □ -B-N	5.3	10KHz,1V	0.038+0	1.9
SCDS5D28T-6R2 □ -B-N	6.2	10KHz,1V	0.045+0	1.8
SCDS5D28T-6R8 □ -B-N	6.8	10KHz,1V	0.050+0	1.65
SCDS5D28T-8R2 □ -B-N	8.2	10KHz,1V	0.053+0	1.6
SCDS5D28T-100 □ -B-N	10	10KHz,1V	0.065+0	1.3
SCDS5D28T-120 □ -B-N	12	10KHz,1V	0.076+0	1.2
SCDS5D28T-150 □ -B-N	15	10KHz,1V	0.103+0	1.1
SCDS5D28T-180 □ -B-N	18	10KHz,1V	0.110+0	1
SCDS5D28T-220 □ -B-N	22	10KHz,1V	0.122+0	0.9
SCDS5D28T-270 □ -B-N	27	10KHz,1V	0.175+0	0.85
SCDS5D28T-330 □ -B-N	33	10KHz,1V	0.189+0	0.75
SCDS5D28T-390 □ -B-N	39	10KHz,1V	0.212+0	0.7
SCDS5D28T-470 □ -B-N	47	10KHz,1V	0.250+0	0.62
SCDS5D28T-560 □ -B-N	56	10KHz,1V	0.305+0	0.58
SCDS5D28T-680 □ -B-N	68	10KHz,1V	0.355+0	0.52
SCDS5D28T-820 □ -B-N	82	10KHz,1V	0.463+0	0.46
SCDS5D28T-101 □ -B-N	100	10KHz,1V	0.520+0	0.42

NOTE : □ -tolerance T=±30%

1.Operating temperature range -40°C~85°C(Includes temperature when the coil is heated)

2.Rate current: The rate current indicates the current when the inductance decreases to 70% over of it's nominal value or D.C.current when the temperature rising ΔT=40°C lower, whichever is lower.

"-N" FOR COMPLETELY LEAD FREE TYPE(INCLUDING FERRITE BODY & SOLDER)

ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

TYPE	Inductance(μH)	Test Freq	RDC(Ω)Max	Rated current(A)Max
SCDS6D28T-3R0 □-B-N	3	10KHz,1V	0.024+0	3
SCDS6D28T-3R9 □-B-N	3.9	10KHz,1V	0.027+0	2.6
SCDS6D28T-4R7 □-B-N	4.7	10KHz,1V	0.031+0	2.4
SCDS6D28T-5R0 □-B-N	5	10KHz,1V	0.031+0	2.4
SCDS6D28T-5R6 □-B-N	5.6	10KHz,1V	0.035+0	2.25
SCDS6D28T-6R0 □-B-N	6	10KHz,1V	0.035+0	2.25
SCDS6D28T-6R8 □-B-N	6.8	10KHz,1V	0.052+0	2.1
SCDS6D28T-7R3 □-B-N	7.3	10KHz,1V	0.054+0	2.1
SCDS6D28T-8R6 □-B-N	8.6	10KHz,1V	0.058+0	1.85
SCDS6D28T-100 □-B-N	10	10KHz,1V	0.065+0	1.7
SCDS6D28T-120 □-B-N	12	10KHz,1V	0.070+0	1.55
SCDS6D28T-150 □-B-N	15	10KHz,1V	0.084+0	1.4
SCDS6D28T-180 □-B-N	18	10KHz,1V	0.095+0	1.32
SCDS6D28T-220 □-B-N	22	10KHz,1V	0.128+0	1.2
SCDS6D28T-270 □-B-N	27	10KHz,1V	0.142+0	1.05
SCDS6D28T-330 □-B-N	33	10KHz,1V	0.165+0	0.97
SCDS6D28T-390 □-B-N	39	10KHz,1V	0.210+0	0.86
SCDS6D28T-470 □-B-N	47	10KHz,1V	0.238+0	0.8
SCDS6D28T-560 □-B-N	56	10KHz,1V	0.277+0	0.73
SCDS6D28T-680 □-B-N	68	10KHz,1V	0.304+0	0.65
SCDS6D28T-820 □-B-N	82	10KHz,1V	0.390+0	0.6
SCDS6D28T-101 □-B-N	100	10KHz,1V	0.535+0	0.54

NOTE : □-tolerance T=±30%

1.Operating temperature range -40°C~85°C(Includes temperature when the coil is heated)

2.Rate current: The rate current indicates the current when the inductance decreases to 70% over of it's nominal value or D.C.current when the temperature rising ΔT=40°C lower, whichever is lower.

"-N" FOR COMPLETELY LEAD FREE TYPE(INCLUDING FERRITE BODY & SOLDER)

ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

TYPE	Inductance(μH)	Test Freq	RDC(Ω)Max	Rated current(A)Max
SCDS6D38T-3R3 □-B-N	3.3	10KHz,0.1V	0.020+0	3.5
SCDS6D38T-4R7 □-B-N	4.7	10KHz,0.1V	0.022+0	3.1
SCDS6D38T-5R0 □-B-N	5	10KHz,0.1V	0.024+0	2.9
SCDS6D38T-6R2 □-B-N	6.2	10KHz,0.1V	0.027+0	2.5
SCDS6D38T-6R8 □-B-N	6.8	10KHz,0.1V	0.029+0	2.4
SCDS6D38T-7R4 □-B-N	7.4	10KHz,0.1V	0.031+0	2.3
SCDS6D38T-8R7 □-B-N	8.7	10KHz,0.1V	0.034+0	2.2
SCDS6D38T-100 □-B-N	10	10KHz,0.1V	0.038+0	2
SCDS6D38T-120 □-B-N	12	10KHz,0.1V	0.053+0	1.7
SCDS6D38T-150 □-B-N	15	10KHz,0.1V	0.057+0	1.6
SCDS6D38T-180 □-B-N	18	10KHz,0.1V	0.092+0	1.5
SCDS6D38T-220 □-B-N	22	10KHz,0.1V	0.096+0	1.3
SCDS6D38T-270 □-B-N	27	10KHz,0.1V	0.109+0	1.2
SCDS6D38T-330 □-B-N	33	10KHz,0.1V	0.124+0	1.1
SCDS6D38T-390 □-B-N	39	10KHz,0.1V	0.138+0	1
SCDS6D38T-470 □-B-N	47	10KHz,0.1V	0.150+0	0.95
SCDS6D38T-560 □-B-N	56	10KHz,0.1V	0.202+0	0.85
SCDS6D38T-680 □-B-N	68	10KHz,0.1V	0.234+0	0.75
SCDS6D38T-820 □-B-N	82	10KHz,0.1V	0.324+0	0.7
SCDS6D38T-101 □-B-N	100	10KHz,0.1V	0.358+0	0.65

NOTE : □-tolerance T=±30%

1.Operating temperature range -40°C~85°C(Includes temperature when the coil is heated)

2.Rate current: The rate current indicates the current when the inductance decreases to 70% over of it's nominal value or D.C.current when the temperature rising ΔT=40°C lower, whichever is lower.

"-N" FOR COMPLETELY LEAD FREE TYPE(INCLUDING FERRITE BODY & SOLDER)

SCDS SERIES RELIABILITY TEST

1-1 MECHANICAL PERFORMANCE

NO.	ITEM	SPECIFICATION	TEST CONDITIONS
1-1-1	Vibration	Appearance : No Damage L Change : within ±10% Q Change : within ±30% RDC : within Specification	Test device shall be soldered on the substrate. Oscillation Frequency : 10 to 55 to 10Hz for 1Min. Amplitude : 1.5mm Time : 2Hrs. for each Axis (X,Y & Z), Total 6Hrs.
1-1-2	Resistance to Soldering Heat	Appearance : No Damage	Pre-heating : 150°C, 1Min. Solder Composition : Sn/Pb = 63/37 Solder Temperature : 260 ± 5°C Immersion Time : 10 ± 1Sec.
1-1-3	Solderability	The electrodes shall be at least 90% covered with new solder coating.	Pre-heating : 150°C, 1Min. Solder Composition : Sn/Pb = 63/37 Solder Temperature : 230 ± 5°C Immersion Time : 4 ± 1Sec.

1-2 ENVIRONMENTAL PERFORMANCE

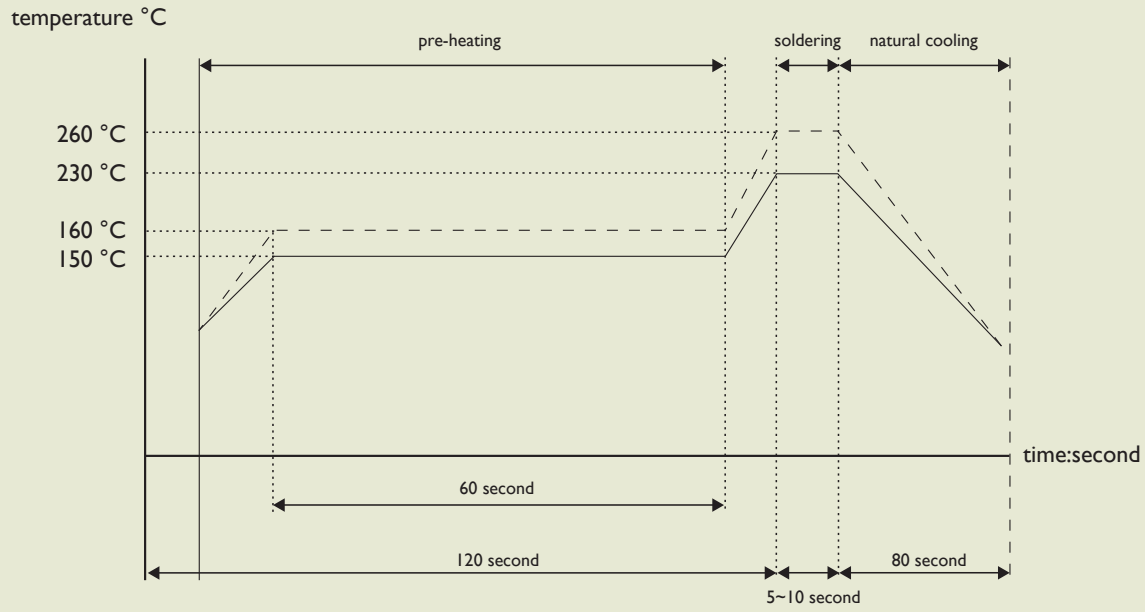
NO.	ITEM	SPECIFICATION	TEST CONDITIONS
1-2-1	Temperature Shock	Appearance : No Damage L Change : within ±10% L Change : within ±30% RDC : within Specification	10 Cycles (Air to Air) 1 Cycles shall Consist of : 30Min. Exposure to -55°C 30Min. Exposure to -125°C 15Sec. Max. Transition between Temperatures Measured after Exposure in the Room Condition for 24Hrs.
1-2-2	Temperature Cycle		One Cycle

Step	Temperature (°C)	Time (Min.)
1	-25 ± 3	30
2	25 ± 2	3
3	85 ± 3	30
4	25 ± 2	3

		Total : 100 Cycles Measured after Exposure in the Room Condition for 24Hrs.
1-2-3	Humidity Resistance	Temperature : 40 ± 2°C Relative Humidity : 90 ~ 95% Time : 1000Hrs. Measured after Exposure in the Room Condition for 24Hrs.
1-2-4	High Temperature Resistance	Temperature : 85 ± 3°C Relative Humidity : 20% Applied Current : Rated Current Time : 1000Hrs. Measured after Exposure in the Room Condition for 24Hrs.
1-2-5	Low Temperature Resistance	Temperature : -25 ± 3°C Relative Humidity : 0% Time : 1000Hrs. Measured after Exposure in the Room Condition for 24Hrs.

RECOMMEND SOLDERING CONDITIONS

for:CL/ CLH/ SQV/ SMD power inductors/ SMD Chip Beads/ SMD Filters,Transformers, Current Sensors



for: lead solder

for: lead-free solder

SMD Shielded Power Inductors

SCDS Series

High Energy Storage & Lower Power Losses

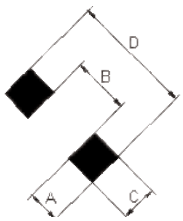
PRODUCT IDENTIFICATION

SCDS □□□□ □□- □□□□ □- □

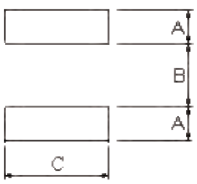
- Intemal No.
- Tolerance
- Inductance
- T or R or LD or HP
- Dimensions
- Product Symbol

- T :Packaging:Tape and Reel
- R:Core style (Round)
- HP:Low DCR
- LD:High Power
- Tolerance:K=±10%, M=±20%, T=±30%
- Internal No.:B:Silver plated terminals(3D12~6D38);S:Base type terminals(2D09~2D18HP&62T~127)
- Note:YAGEO has already released lead-free indutors of SCDS series,and Intemal No. will be added a"N" as identification.

RECOMMENDED PATTERN



A	B	C	D
1.3	1.7	1.3	4.3



A	B	C
4	3.5	11

APPLICATIONS

- Power supply for VTRs.
- OA equipment.
- LCD televisions.
- Notebook PCs.
- Portable communication equipment.
- DC/DC converters,etc.
- Operating temperayure:-30°C ~100°C (For 2D09/ 4D18C); -40°C ~85°C (For 1014R/ 105R)

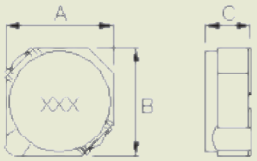
FEATURES

- Available in magnetically shielded
- Low DC resistance
- Suitable for large currents.
- Ideal for a variety of DC-DC converter inductor applications.
- Available on tape and reel for auto surface mounting.

SHAPES AND DIMENSIONS

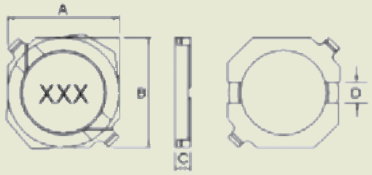
Dimensions : mm

SCDS 2D09



A	B	C	D	E	F
3.2^{+0}	3.2^{+0}	1.0^{+0}	3.3	2.1	1.0

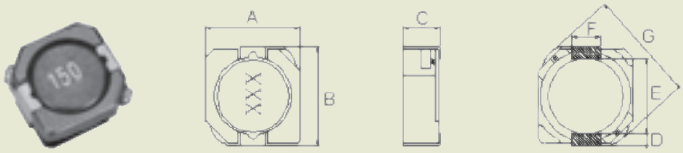
SCDS 1014R



A	B	C	D
10±0.3	10±0.3	1.4±0.3	2.8 TYP

SHAPES AND DIMENSIONS

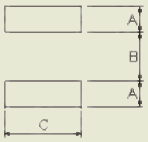
SCDS 105R



A	B	C	D	E	F	G
10.3^{+0}	10.5^{+0}	5.1^{+0}	1.2	7.7	3.0	13.5^{+0}

RECOMMENDED PATTERN

Dimensions : mm



A	B	C
1.6	7.3	3.2

ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

TYPE	Inductance(μH)	Test Freq(KHz)	D.C.R(mΩ)Max	Rated Current(A)Max
SCDS2D09T -1R2T-S	1.2	100/1V	97.5	0.80
SCDS2D09T -1R5T-S	1.5	100/1V	110.0	0.73
SCDS2D09T -1R8T-S	1.8	100/1V	131.3	0.65
SCDS2D09T -2R2T-S	2.2	100/1V	143.8	0.60
SCDS2D09T -2R7T-S	2.7	100/1V	150.0	0.53
SCDS2D09T -3R3T-S	3.3	100/1V	193.8	0.47
SCDS2D09T -3R9T-S	3.9	100/1V	225.0	0.45
SCDS2D09T -4R7T-S	4.7	100/1V	287.5	0.41
SCDS2D09T -5R6T-S	5.6	100/1V	325.0	0.37
SCDS2D09T -6R8T-S	6.8	100/1V	425.0	0.33
SCDS2D09T -8R2T-S	8.2	100/1V	475.0	0.30
SCDS2D09T -100T-S	10	100/1V	537.5	0.28

- Inductance range 1.2uH to 10uH
- Tolerance : T=±30%
- Rated current:The rate current indicates the current when the inductance decreases to 65% over of it's nominal value or D.C.current when the temperature rising Δt = 40°C lower, whichever is lower.
- Test instument : L :hp4284A ; RDC : CHEN HWA 502BC ; Rated current : HP4284+42842A or CH1061+CH301A

ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

TYPE	Inductance(μH)	Test Freq	RDC(Ω)	Rated Current(A)Max	Irms(A)Typ	Tolerance
SCDS2D09T -1R2 □-N	1.2	100KHz/1V	0.0975+0	0.8	1.24	T
SCDS2D09T -1R5 □-N	1.5	100KHz/1V	0.1100+0	0.73	1.15	T
SCDS2D09T -1R8 □-N	1.8	100KHz/1V	0.1313+0	0.65	1.06	T
SCDS2D09T -2R2 □-N	2.2	100KHz/1V	0.1438+0	0.6	1.05	T
SCDS2D09T -2R7 □-N	2.7	100KHz/1V	0.1500+0	0.53	0.98	T
SCDS2D09T -3R3 □-N	3.3	100KHz/1V	0.1938+0	0.47	0.84	T
SCDS2D09T -3R9 □-N	3.9	100KHz/1V	0.2250+0	0.45	0.72	T
SCDS2D09T -4R7 □-N	4.7	100KHz/1V	0.2875+0	0.41	0.64	T
SCDS2D09T -5R6 □-N	5.6	100KHz/1V	0.3250+0	0.37	0.59	T
SCDS2D09T -6R8 □-N	6.8	100KHz/1V	0.4250+0	0.33	0.53	T
SCDS2D09T -8R2 □-N	8.2	100KHz/1V	0.4750+0	0.3	0.46	T
SCDS2D09T -100 □-N	10	100KHz/1V	0.5375+0	0.28	0.42	M,T
SCDS2D09T -220 □-N	22	100KHz/1V	1.5000+0	0.2	-	M,T

NOTE : □-tolerance M=±20% / T=±30%

1.Operating temperature range -40°C~85°C(Includes temperature when the coil is heated)

2.Rate current: Inductance drop = 35% typ.

3.Irms:Δt=40°C

"-N"FOR COMPLETELY LEAD FREE TYPE(INCLUDING FERRITE BODY & SOLDER)

ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

TYPE	Inductance(μH)	Test Freq(KHz)	D.C.R(mΩ)Max	Rated Current(A)Max
SCDS1014R-100M -S	10	100/1V	0.17	1.8
SCDS1014R-150M -S	15	100/1V	0.24	1.4
SCDS1014R-220M -S	22	100/1V	0.33	1.2
SCDS1014R-330M -S	33	100/1V	0.50	0.9

• Inductance range 10uH to 33uH
• Tolerance : M=±20%
• 2.Rate current: Inductance drop = 35% typ.
•Test instument : L :hp192A or HP4263B. RDC : CHEN HWA 502BC Reted current : CH1061+301A

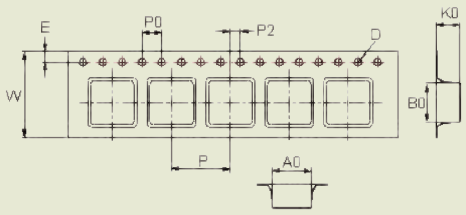
ELECTRICAL CHARACTERISTICS : LEAD-FREE & ROHS COMPLIANCE

TYPE	Inductance(μH)	Test Freq(KHz)	D.C.R(mΩ)Max	Rated Current(A)Max
SCDS105R -R80T-S	0.8	100/1V	4.3	9.50
SCDS105R -1R5T-S	1.5	100/1V	5.8	8.30
SCDS105R -2R2T-S	2.2	100/1V	7.2	7.50
SCDS105R -3R3T-S	3.3	100/1V	10.4	6.50
SCDS105R -4R7T-S	4.7	100/1V	12.3	6.10
SCDS105R -6R8T-S	6.8	100/1V	18	5.40
SCDS105R -8R2T-S	8.2	100/1V	20	5.00
SCDS105R -100T-S	10	100/1V	26	4.50
SCDS105R -120T-S	12	100/1V	33	3.80
SCDS105R -150T-S	15	100/1V	41	3.40
SCDS105R -180T-S	18	100/1V	46	3.10
SCDS105R -220T-S	22	100/1V	61	2.90
SCDS105R -270T-S	27	100/1V	69	2.60
SCDS105R -330T-S	33	100/1V	84	2.50
SCDS105R -390T-S	39	100/1V	106	2.25
SCDS105R -470T-S	47	100/1V	130	2.00
SCDS105R -560T-S	56	100/1V	149	1.90
SCDS105R -680T-S	68	100/1V	201	1.60
SCDS105R -820T-S	82	100/1V	227	1.45
SCDS105R -101T-S	100	100/1V	253	1.35
SCDS105R -121T-S	120	100/1V	303	1.18
SCDS105R -151T-S	150	100/1V	370	1.10
SCDS105R -181T-S	180	100/1V	419	1.00
SCDS105R -221T-S	220	100/1V	500	0.94
SCDS105R -271T-S	270	100/1V	672	0.80
SCDS105R -331T-S	330	100/1V	812	0.73
SCDS105R -391T-S	390	100/1V	953	0.70
SCDS105R -471T-S	470	100/1V	1289	0.54
SCDS105R -561T-S	560	100/1V	1430	0.52
SCDS105R -681T-S	680	100/1V	1599	0.51
SCDS105R -821T-S	820	100/1V	1768	0.48
SCDS105R -102T-S	1000	100/1V	1989	0.42

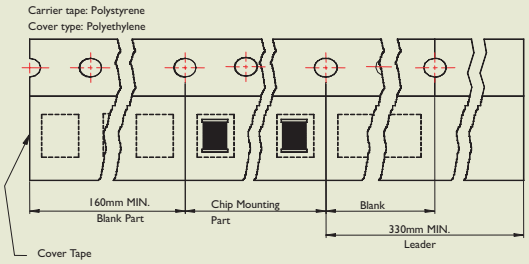
• Inductance range 0.8uH to 10000uH
• Tolerance : T=±30%
• 2.Rate current: Inductance drop = 10% typ.
•Test instument : L :hp192A or HP4263B. ; RDC : CHEN HWA 502BC ; Rated current : HP4284+42842A

PACKAGING SPECIFICATIONS

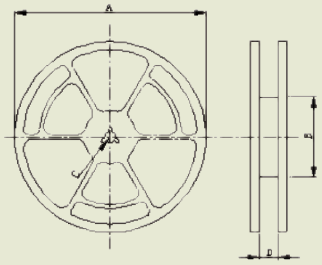
Tape Dimensions



Tape Material



Reel Dimensions



TYPE	TAPE DIMENSIONS									REEL DIMENSIONS				QUANTITY
	A0	B0	K0	D	E	E	P	P0	P2	A	B	C	D	PCS/REEL
SCDS 1014R	10.5	10.5	1.9	1.5	1.75	24	16	4	2	330	100	13	24.4	1000
SCDS 105R	10.5	10.5	5.1	1.5	1.75	24	16	4	2	330	100	13	24.4	500
SCDS 2D09	3.3	3.3	1.3	1.5	1.75	12	8	4	2	178	60	13	13.2	1500

RECOMMEND SOLDERING CONDITIONS

for:CL/ CLH/ SQV/ SMD power inductors/ SMD Chip Beads/ SMD Filters,Transformers, Current Sensors