SDS Series

These shielded ultra-miniature inductors can help designers achieve significantly longer battery life in handheld communication devices and other portable products. They are designed with a flat top and constructed of heat resistant materials to ensure trouble-free assembly and reflow operations.

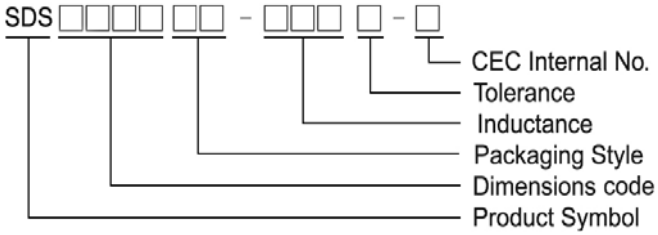
Features

- RoHS compliant
- Smallest size and high performance
- High energy storage and very low resistance

Applications

- Notebook computers, step-up and step-down converters
- Flash memory programmers, etc

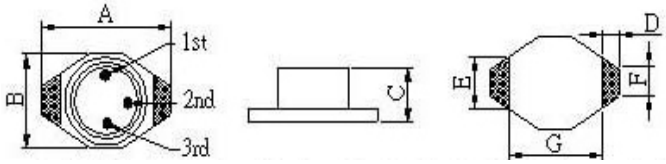
Product Identification



- Packaging: T: Tape and Reel

Shape and Dimensions

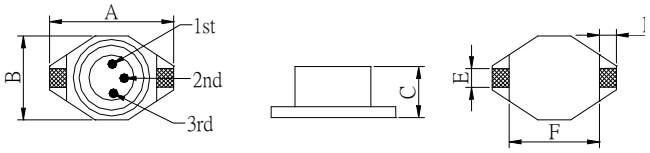
SDS0402



Dimensions in mm

TYPE	A	B	C	D	E	F	G
SDS0402	6.60^{+0}	4.45^{+0}	2.92^{+0}	1.02	3.05	1.27	4.32

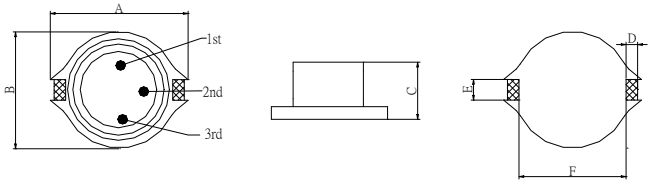
SDS0804



Dimensions in mm

TYPE	A	B	C	D	E	F
SDS0804	12.95^{+0}	9.40^{+0}	5.08^{+0}	2.54	2.54	7.62

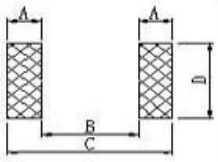
SDS1306



Dimensions in mm

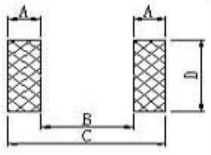
TYPE	A	B	C	D	E	F
SDS1306	18.54^{+0}	15.24^{+0}	7.62^{+0}	2.54	2.54	12.7

Recommended Pattern



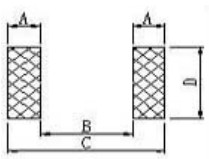
Dimensions in mm

TYPE	A	B	C	D
SDS0402	1.4	4.06	6.86	3.56



Dimensions in mm

TYPE	A	B	C	D
SDS0804	2.92	7.37	13.21	2.79



Dimensions in mm

TYPE	A	B	C	D
SDS1306	2.92	12.45	18.29	2.79

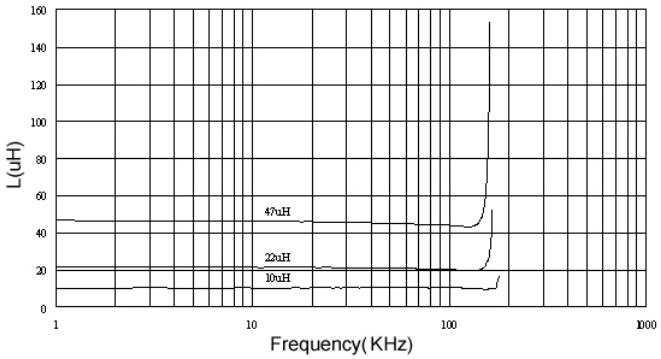
Electrical Characteristics

Part Number	Inductance (μH)	Tolerance (±%)	Q Min	Q Frequency (KHz)	DC Resistance (Ω) Max	SRF (MHz) Typ.	Irms (A)
SDS0402T-1R0M-N	1.0	20	30	200	0.040	200	3.0
SDS0402T-1R5M-N	1.5	20	30	200	0.045	100	2.8
SDS0402T-2R2M-N	2.2	20	40	200	0.050	90	1.8
SDS0402T-3R3M-N	3.3	20	40	200	0.060	90	1.6
SDS0402T-4R7M-N	4.7	20	40	200	0.065	80	1.4
SDS0402T-6R8M-N	6.8	20	40	200	0.070	40	1.2
SDS0402T-100M-N	10	20	40	200	0.075	30	1.0
SDS0402T-150M-N	15	20	40	100	0.090	25	0.80
SDS0402T-220M-N	22	20	40	100	0.110	20	0.70
SDS0402T-330M-N	33	20	40	100	0.190	15	0.60
SDS0402T-470M-N	47	20	40	100	0.230	15	0.50
SDS0402T-680M-N	68	20	40	100	0.290	10	0.40
SDS0402T-101M-N	100	20	40	100	0.480	8	0.30
SDS0402T-151M-N	150	20	40	100	0.590	7	0.26
SDS0402T-221M-N	220	20	40	100	0.770	4	0.22
SDS0402T-331M-N	330	20	40	100	1.4	4	0.20
SDS0402T-471M-N	470	20	40	100	1.8	3	0.19
SDS0402T-681M-N	680	20	40	100	2.2	2	0.18
SDS0402T-102M-N	1000	20	40	100	3.4	1	0.15

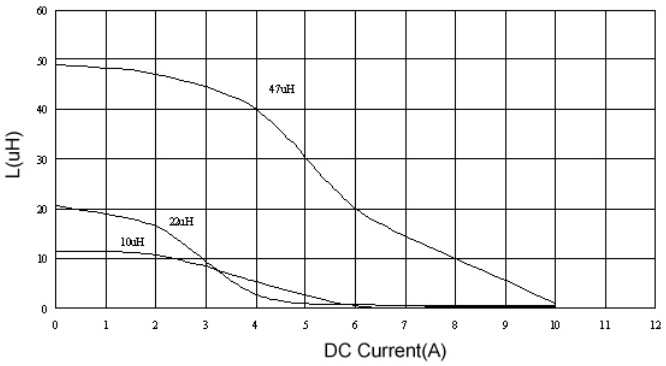
- Inductance tested at 0.1 Vrms, 100KHz.
- 30℃ temperature rise at Irms
- Tolerance: M = ±20%
- Operating temperature range －４０～１２５℃ (Including self - temperature rise)

Test Instruments：HP4294A Impedance / Material Analyzer

Inductance vs. Frequency Characteristics



Inductance vs. DC Current



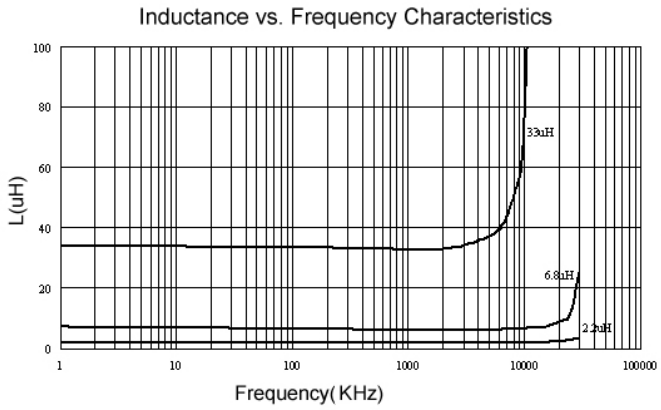
CHILISIN ELECTRONICS CORP.

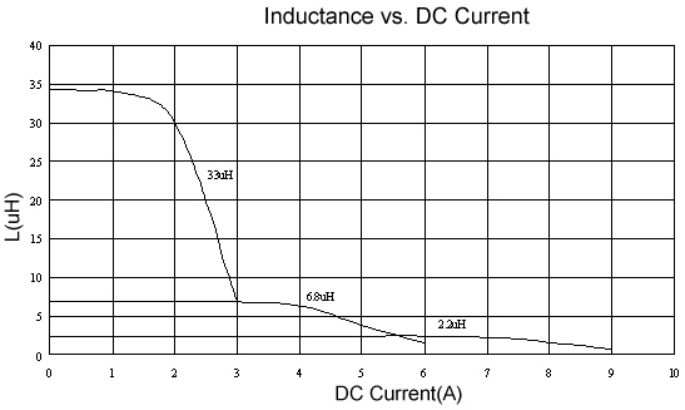
Electrical Characteristics

Part Number	Inductance (μH)	Tolerance (±%)	Q Min	Q Frequency (KHz)	DC Resistance (Ω) Max	SRF (MHz) Typ.	Isat (A)	Irms (A)
SDS0804T-1R0M-N	1.0	20	3	100	0.021	110	5.6	5.0
SDS0804T-1R5M-N	1.5	20	5	100	0.022	90	5.2	4.5
SDS0804T-2R2M-N	2.2	20	5	100	0.032	60	5.0	3.8
SDS0804T-3R3M-N	3.3	20	5	100	0.039	55	3.9	3.3
SDS0804T-4R7M-N	4.7	20	10	100	0.054	30	3.2	2.7
SDS0804T-6R8M-N	6.8	20	10	100	0.075	30	2.8	2.2
SDS0804T-100M-N	10.0	20	10	100	0.101	28	2.4	2.0
SDS0804T-150M-N	15.0	20	15	100	0.15	20	2.0	1.5
SDS0804T-220M-N	22.0	20	20	100	0.207	15	1.6	1.3
SDS0804T-330M-N	33.0	20	20	100	0.334	12	1.4	1.1
SDS0804T-470M-N	47.0	20	20	100	0.472	10	1.0	0.8

- Tested at 100KHz , 0.1 Vrms.
- Inductance drop = 10% typ. At rated Isat.
- 40℃ rise typ. at Irms.
- Tolerance: M = ±20%
- Operating temperature range －４０℃～１２５℃ (Including self - temperature rise)

Test Instruments：HP4294A Impedance / Material Analyzer



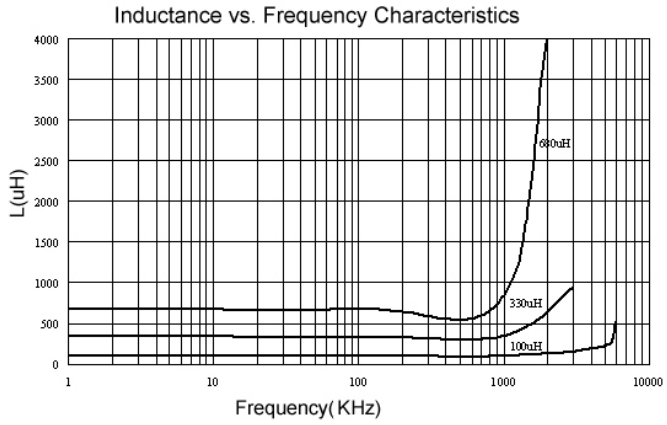


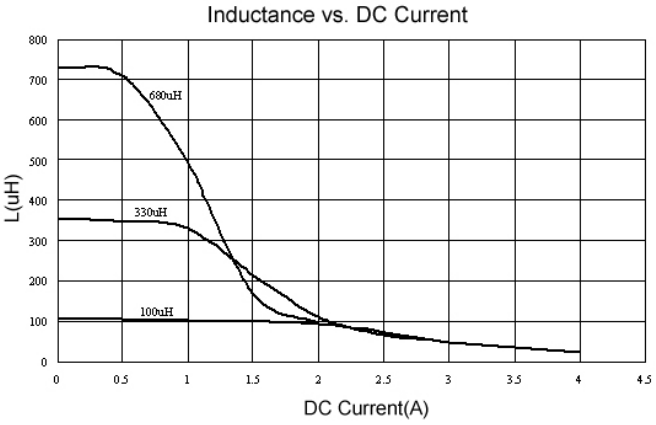
Electrical Characteristics

Part Number	Inductance (μH)	Tolerance (±%)	Q Min	Q Frequency (KHz)	DC Resistance (Ω) Max	Isat (A)	Irms (A)	SRF (MHz) Typ.
SDS1306T-100M-N	10	20	40	100	0.040	5.5	3.9	24
SDS1306T-150M-N	15	20	40	100	0.048	4.5	3.4	16
SDS1306T-220M-N	22	20	30	100	0.059	3.5	3.1	14
SDS1306T-330M-N	33	20	40	100	0.075	3.3	2.8	11
SDS1306T-470M-N	47	20	40	100	0.097	2.7	2.4	8.0
SDS1306T-680M-N	68	20	40	100	0.140	2.2	2.0	7.0
SDS1306T-101M-N	100	20	40	100	0.210	1.7	1.7	5.5
SDS1306T-151M-N	150	20	50	100	0.300	1.3	1.3	4.8
SDS1306T-221M-N	220	20	50	100	0.470	1.1	1.1	4.0
SDS1306T-331M-N	330	20	50	100	0.780	0.86	0.86	3.0
SDS1306T-471M-N	470	20	50	100	1.08	0.73	0.73	2.4
SDS1306T-681M-N	680	20	60	100	1.40	0.64	0.64	2.0
SDS1306T-102M-N	1000	20	60	100	2.01	0.53	0.53	1.0

- Inductance tested at 0.1 Vrms, 100KHz.
- Inductance drop 10% typ. at Isat.
- 40℃ rise typ. at Irms.
- Tolerance: M = ±20%
- Operating temperature range－４０℃～１２５℃ (Including self - temperature rise)

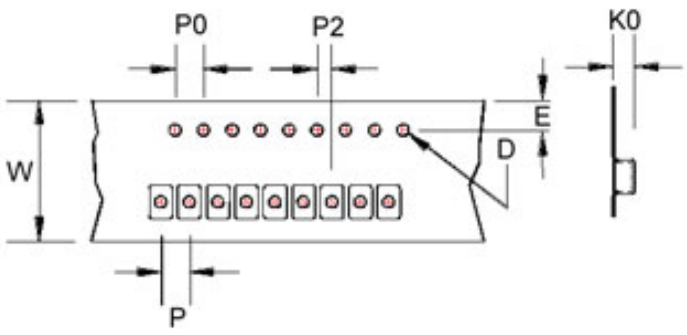
Test Instruments：HP4294A Impedance / Material Analyzer



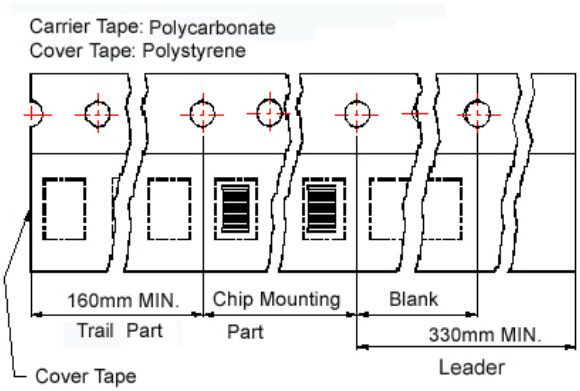


Packaging Specifications

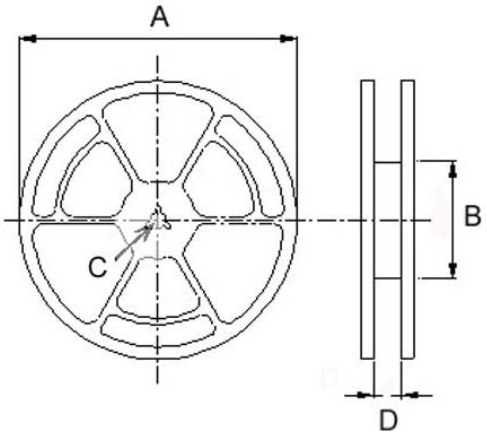
Tape Dimensions



Tape Material



Reel Dimensions



Dimensions

TYPE	Tape Dimensions							Reel Dimensions				Quantity (PCS / REEL)	
	K0	D	E	W	P	P0	P2	A	B	C	D	178mm	330mm
SDS 0402	3.2	1.55	1.75	12	8	4	2	330 178	100 60	13	13.4 13.2	- 750	2500 -
SDS 0804	5.4	1.55	1.75	24	12	4	2	330	100	13	24.4	-	1000
SDS 1306	7.5	1.55	1.75	32	20	4	2	330	100	13	33.4	-	250