

## SSL\_HC Series



### Features

- RoHS compliant
- For high current, low voltage DC-DC converter applications.

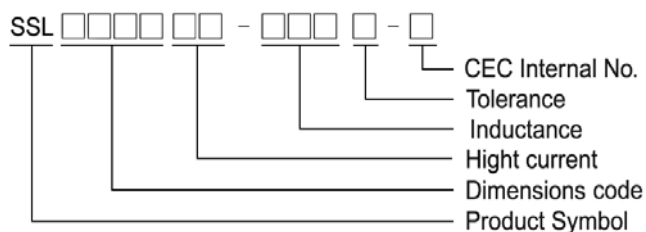
These series is specially designed for high current, low voltage DC-DC converter applications.

Its simple, rugged design provides current ratings normally available in larger packages. With its tinned self-leaded construction, SSL-HC series can achieve very low DCR values and excellent solderability. In addition, they have very low resistance and a rugged self-leaded construction. Standard parts shown in catalogue and custom values are also available.

### Applications

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

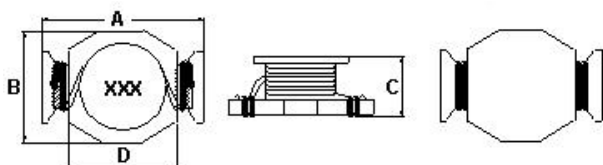
### Product Identification



- Packaging: T : Tape and Reel , B : Bulk

### Shapes and Dimension

#### SSL0503HC

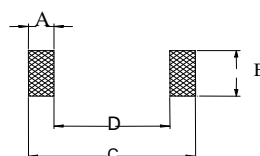


Dimension in mm

A	B	C	D
8.89 <sup>+0</sup>	6.10 <sup>+0</sup>	5.00 <sup>+0</sup>	5.84

### Recommended Pattern

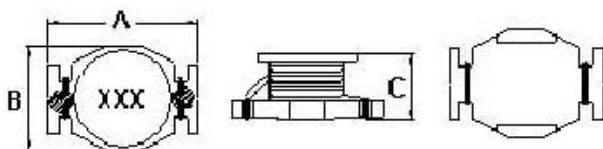
#### Land Pattern



Dimension in mm

A	B	C	D
1.91	4.06	8.89	5.08

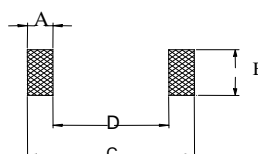
#### SSL0804HC



Dimension in mm

A	B	C
13.21 <sup>+0</sup>	9.91 <sup>+0</sup>	6.35 <sup>+0</sup>

#### Land Pattern

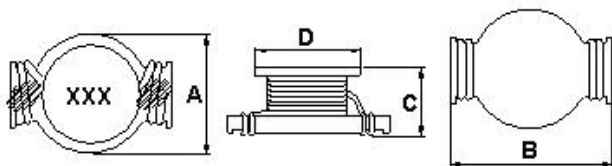


Dimension in mm

A	B	C	D
1.52	4.06	11.68	8.64

## Shapes and Dimension

SSL1306HC

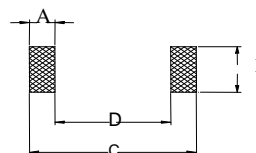


Dimension in mm

A	B	C	D
16.26 <sup>+0</sup>	22.35 <sup>+0</sup>	8.0 <sup>+0</sup>	12.7

## Recommended Pattern

Land Pattern



Dimension in mm

A	B	C	D
3.18	8.64	20.71	14.35

## Electrical Characteristics

Part Number	Inductance <sup>①</sup> (μH)	Tolerance (±%)	DC Resistance (Ω) Max	SRF <sup>②</sup> (MHz) Typ	Isat <sup>③</sup> (A)	Irms <sup>④</sup> (A)
SSL0503HC-R56M-N	0.56	20	0.010	200	7.7	6.0
SSL0503HC-1R2M-N	1.2	20	0.017	140	5.3	4.4
SSL0503HC-2R2M-N	2.2	20	0.035	100	3.5	3.1
SSL0503HC-4R7M-N	4.7	20	0.054	50	2.6	2.2
SSL0503HC-100M-N	10	20	0.111	40	1.9	1.5
SSL0503HC-150M-N	15	20	0.17	30	1.5	1.2
SSL0503HC-220M-N	22	20	0.25	25	1.2	1.0
SSL0503HC-330M-N	33	20	0.37	20	0.99	0.82
SSL0503HC-470M-N	47	20	0.47	15	0.87	0.72

1. Inductance tested at 100 KHz, 0.25 Vrms.

2. SRF measured using HP8753D network analyzer

3. Inductance drop = 30% typ. at Isat.

4. ΔT = 40° typ at I<sub>rms</sub>.

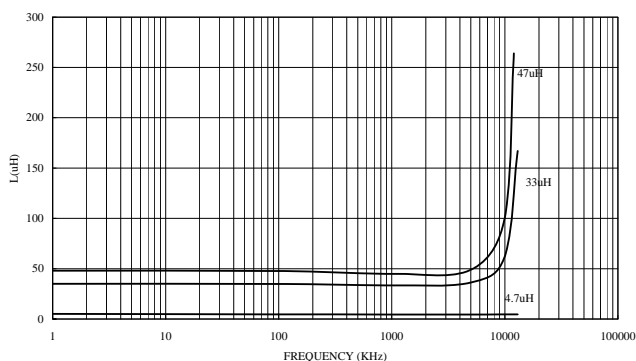
● Tolerance: M = ±20%

● Operating temperature range – 40°C ~ 125°C (Including self - temperature rise )

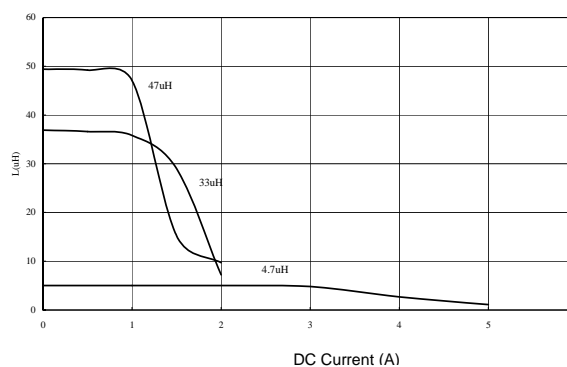
● Electrical specifications at 25°C

## Test Instruments :

INDUCTANCE vs. FREQUENCY CHARACTERISTICS



Inductance vs. DC Current



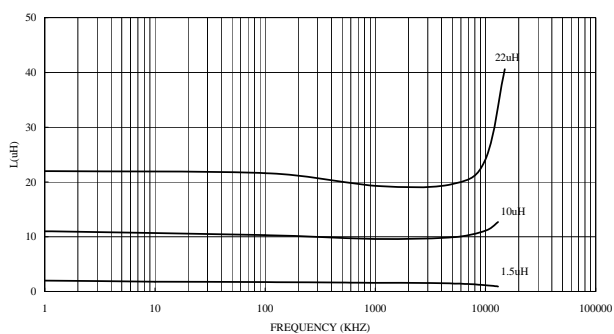
## Electrical Characteristics

Part Number	Inductance <sup>①</sup> ( $\mu$ H)	Tolerance ( $\pm\%$ )	DC Resistance ( $\Omega$ ) Max	SRF <sup>②</sup> (MHz) Typ	Isat <sup>③</sup> (A)	Irms <sup>④</sup> (A)
SSL0804HC-R33M-N	0.33	20	0.002	300	20.0	16.0
SSL0804HC-R68M-N	0.68	20	0.005	200	13.0	12.0
SSL0804HC-1R0M-N	1.0	20	0.006	100	11.0	10.0
SSL0804HC-1R5M-N	1.5	20	0.008	90	9.0	9.0
SSL0804HC-2R2M-N	2.2	20	0.011	90	7.8	7.4
SSL0804HC-2R7M-N	2.7	20	0.012	65	7.0	6.6
SSL0804HC-3R3M-N	3.3	20	0.014	65	6.4	5.9
SSL0804HC-4R7M-N	4.7	20	0.018	45	5.4	4.8
SSL0804HC-6R8M-N	6.8	20	0.035	35	3.6	5.0
SSL0804HC-100M-N	10	20	0.04	26	3.3	4.3
SSL0804HC-150M-N	15	20	0.06	21	2.4	3.5
SSL0804HC-220M-N	22	20	0.08	17	2.0	2.8
SSL0804HC-330M-N	33	20	0.15	14	1.7	2.1
SSL0804HC-470M-N	47	20	0.28	12	1.4	1.7
SSL0804HC-680M-N	68	20	0.3	9	1.2	1.5
SSL0804HC-101M-N	100	20	0.4	7	0.95	1.2

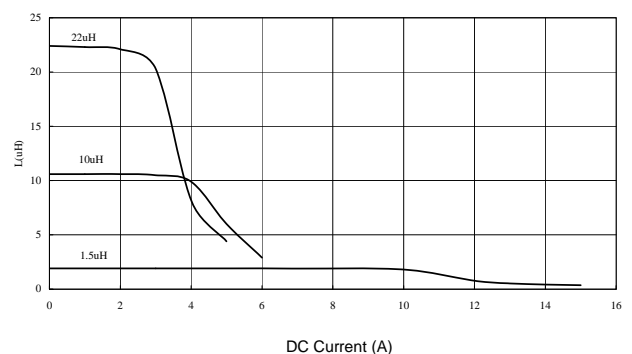
- Inductance tested at 100 KHz, 0.1 Vrms.
  - SRF measured using HP8753D network analyzer
  - Inductance drop = 10% typ. at Isat.
  - $\Delta T = 40^\circ\text{C}$  typ at Irms.
- Tolerance: M =  $\pm 20\%$
  - Operating temperature range  $-40^\circ\text{C} \sim 125^\circ\text{C}$  (Including self - temperature rise )
  - Electrical specifications at  $25^\circ\text{C}$

## Test Instruments :

INDUCTANCE vs. FREQUENCY CHARACTERISTICS



Inductance vs. DC Current



## Electrical Characteristics

Part Number	Inductance <sup>①</sup> (μH)	Tolerance (±%)	DC Resistance (Ω) Max	SRF (MHz) Typ	Isat <sup>②</sup> (A) Typ	Irms <sup>③</sup> (A)
SSL1306HC-R78M-N	0.78	20	0.0026	156	30	15
SSL1306HC-1R5M-N	1.5	20	0.0040	100	25	15
SSL1306HC-2R2M-N	2.2	20	0.0061	75	20	12
SSL1306HC-3R3M-N	3.3	20	0.0086	60	17	10
SSL1306HC-3R9M-N	3.9	20	0.010	55	15	9.0
SSL1306HC-4R7M-N	4.7	20	0.014	40	13	8.4
SSL1306HC-6R0M-N	6.0	20	0.017	35	12	7.5
SSL1306HC-7R8M-N	7.8	20	0.018	35	11	7.5
SSL1306HC-100M-N	10	20	0.026	28	10	6.0
SSL1306HC-150M-N	15	20	0.032	20	8	4.4

1. L: Tested at 100 KHz, 0.1 Vrms.(HP-4192A)

2. Isat: Inductance drop = 10% typ.

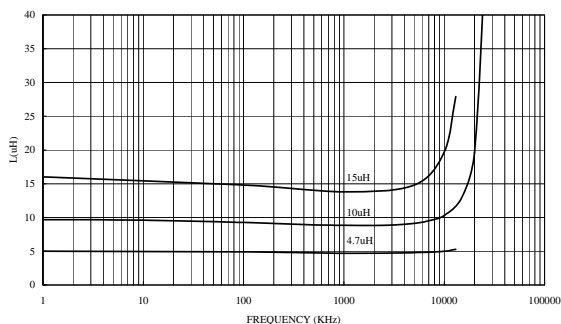
3. ΔT = 40℃ typ at Irms.

● Tolerance: M = ±20%

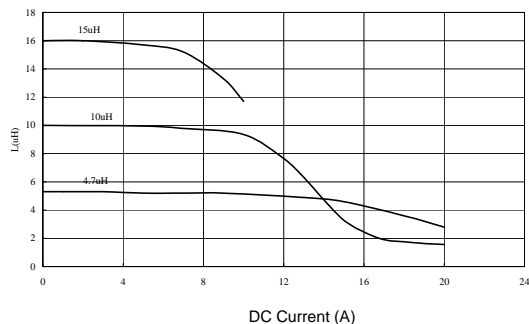
● Operating temperature range - 40℃ ~ 125℃ (Including self - temperature rise )

## Test Instruments :

INDUCTANCE vs. FREQUENCY CHARACTERISTICS

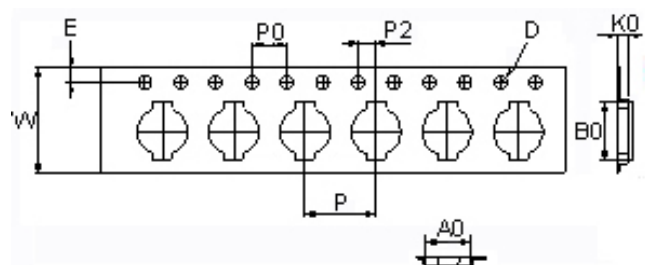


Inductance vs. DC Current

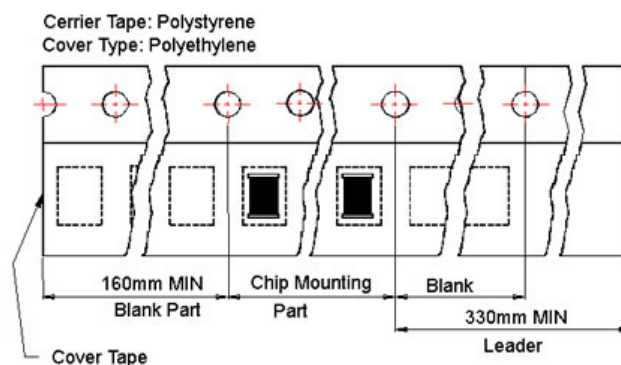


## Packaging Specifications

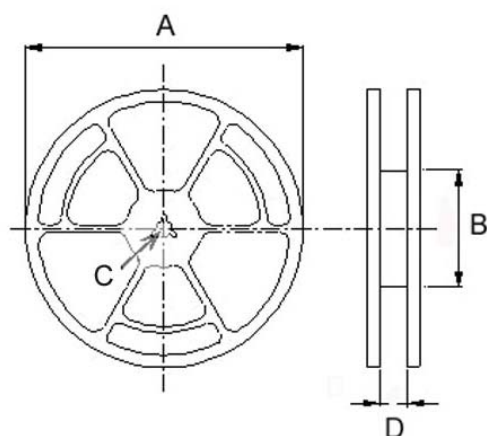
Tape Dimensions



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	
SSL 0503HC	5.3	1.55	1.75	16	12	4	2	330	100	13	17.4	1000
SSL 0804HC	6.1	1.55	1.75	24	16	4	2	330	100	13	24.2	700
SSL 1306HC	7.2	1.55	1.75	44	24	4	2	330	100	13	45.4	250