

SSL-HC Series



This 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 tinned self-leaded construction, SSL-HC series can achieve very low DCR values and excellent solderability. In addition, they have very low resistance. Standard parts shown in catalogue and custom values are also available.

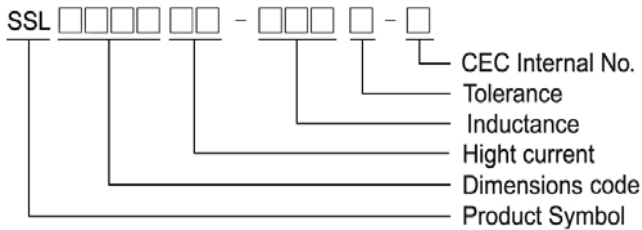
Features

- RoHS, Halogen Free and REACH Compliance
- Unshielded power inductor
- Various package size and wide inductance range. SSL-HC family is designed for low resistance and high current purpose

Applications

- DC/DC converters

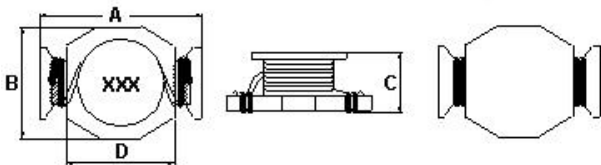
Product Identification



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

Shape and Dimension

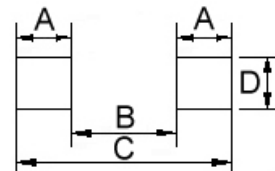
SSL0503HC



Dimension in mm

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

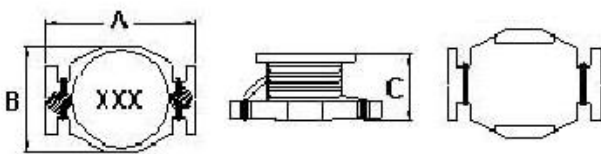
Recommended Pattern



Dimension in mm

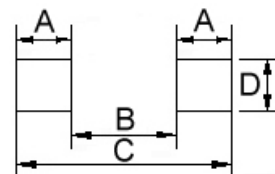
A	B	C	D
1.91	4.06	8.89	5.08

SSL0804HC



Dimension in mm

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



Dimension in mm

A	B	C	D
1.52	4.06	11.68	8.64

## Electrical Characteristics

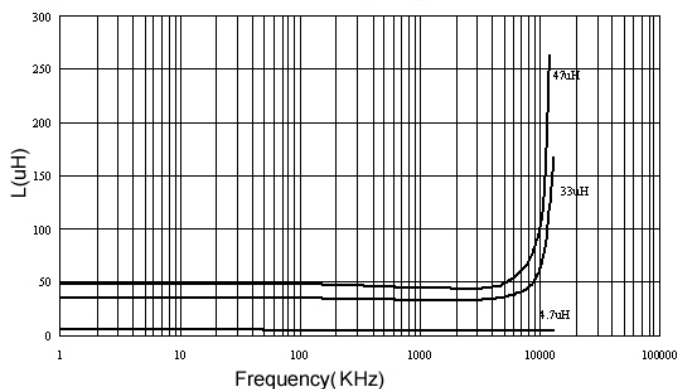
Part Number	Inductance (μH)	Tolerance (±%)	SRF (MHz) Typ.	RDC (Ω) Max	Isat (A)	Irms (A)
SSL0503HC-R56M-N	0.56	20	200	0.010	7.7	6.0
SSL0503HC-1R2M-N	1.2	20	140	0.017	5.3	4.4
SSL0503HC-2R2M-N	2.2	20	100	0.035	3.5	3.1
SSL0503HC-4R7M-N	4.7	20	50	0.054	2.6	2.2
SSL0503HC-100M-N	10	20	40	0.111	1.9	1.5
SSL0503HC-150M-N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

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

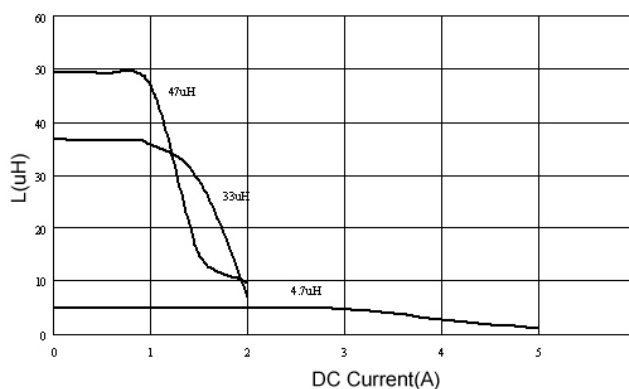
- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- Isat for Inductance drop 30% from its value with current
- I rms for a 40°C temperature rise from 25°C ambient with current
- Measure Equipment :  
 L : E4980 or HP4284A , 100kHz 0.25V  
 SRF : HP4291A or HP4192A  
 RDC : CHEN HWA 502  
 Isat : HP4284A+HP42841A or WK3260B+WK3265B

## Test Instruments :

Inductance vs. Frequency Characteristics



Inductance vs. DC Current



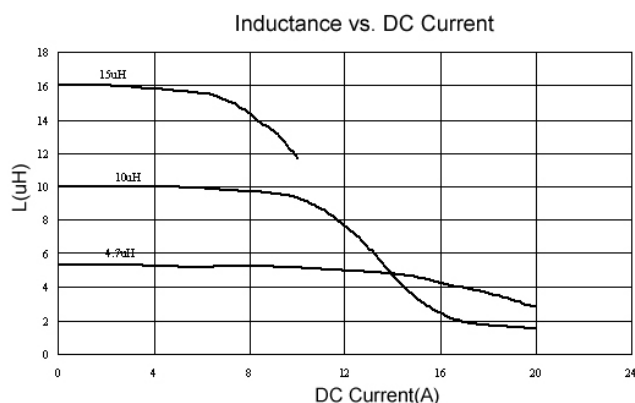
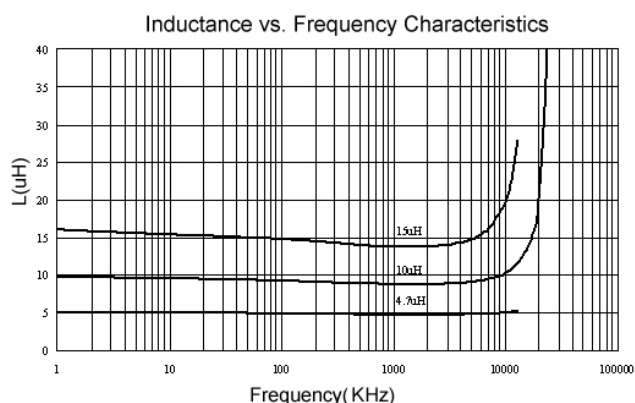
## Electrical Characteristics

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

**Note: When ordering, please specify tolerance code. Tolerance: M= $\pm 20\%$**

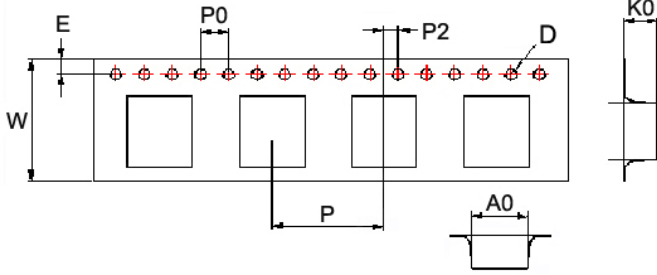
- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- Isat for Inductance drop 10% from its value with current
- I rms for a 40°C temperature rise from 25°C ambient with current
- Measure Equipment :  
 L : E4980 or HP4284A , 100kHz 0.1V  
 SRF : HP4291A or HP4192A  
 RDC : CHEN HWA 502  
 Isat : HP4284A+HP42841A or WK3260B+WK3265B.

## Test Instruments :

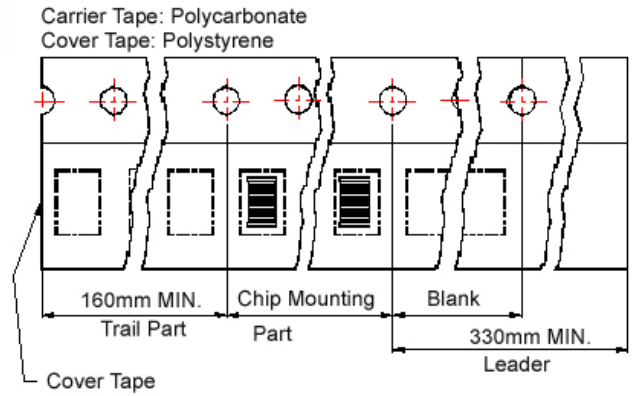


Packaging Specifications

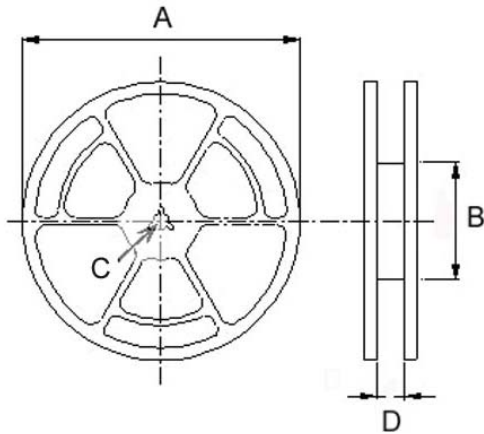
Tape Dimensions



Tape Material



Reel Dimensions



Dimensions in mm

TPYE	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	16.0	1000
SSL 0804HC	6.1	1.55	1.75	24	16	4	2	330	100	13	24.2	700