

## Data Sheet

Customer: \_\_\_\_\_

Product: Thin Film Chip Inductor – SAL Series \_\_\_\_\_

Size : 0201/0402 \_\_\_\_\_

Issued Date: 26-Sep.-2023 \_\_\_\_\_

Edition: Ver. 3 \_\_\_\_\_

### Record of change

Date	Ver.	Description	Page
16-Apr.-2016	1		
03-Jan.-2023	2	Add Part No.	
26-Sep.-2023	3	Add construction (Figure1,2)	1

### HITANO ENTERPRISE CORP.

7F-7, No. 3, Wu Chuan 1<sup>st</sup> Road, New Taipei Industrial Park,  
New Taipei City, TAIWAN, R.O.C.

Tel: +886 2 2299 1331 (Rep.)

Fax: +886 2 2298 2466, 2298 2969

Prepared by	Checked by	Approved by	Accepted by (customer)
25-Sep.-2023	25-Sep.-2023	25-Sep.-2023	
Hwa Wu	Andy Hsu	Arthur Su	

# THIN FILM CHIP INDUCTOR

# SAL SERIES

## ■ Introductions

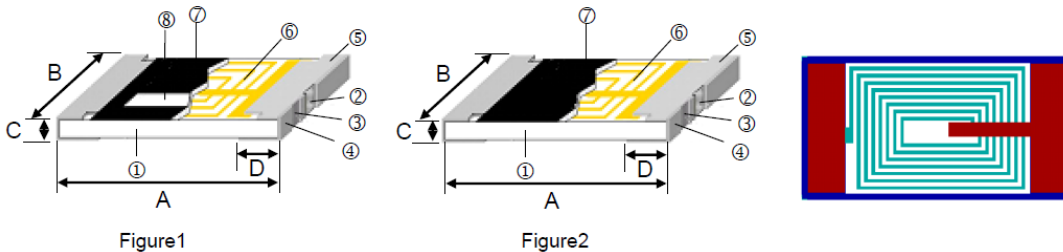
The SAL series is photo lithographically etched single layer ceramic chip inductors providing high SRF, excellent Q value and superior temperature stability, specially designed for critical tolerance required application.



## ■ Features

- Photolithographic single layer ceramic chip
- High SRF, excellent Q , superior temperature stability.
- Tight tolerance of  $\pm 1\%$  or  $\pm 0.1\text{N}$ h
- Self resonant frequency controlled within 10%
- Stable inductance in high frequency circuit.
- Highly stable design for critical needs.

## ■ Dimension & Construction



① Alumina Substrate	④ External Electrode	⑦ Overcoat
② Inner Electrode	⑤ Edge Electrode	⑧ Marking
③ Barrier Layer	⑥ Cu Circuits	

Size	Figure	A	B	C	D
SAL 0201	2	$0.60 \pm 0.03$	$0.30 \pm 0.03$	0.33 max	$0.15 \pm 0.05$
SAL 0402	1	$1.00 \pm 0.10$	$0.50 \pm 0.10$	$0.50 \pm 0.10$	$0.20 \pm 0.10$

## ■ Part Numbering

<u>SAL</u>	<u>0201</u>	<u>C</u>	<u>I</u>	<u>3N3</u>	<u>G</u>	<u>□□</u>
SERIES	SIZE	TYPE	PACKAGE	INDUCTANCE	TOLERANCE	INTERNAL CODE
	0201	C = Standard	T= Tape&Reel	0N1= 0.1nH	B= $\pm 0.1\text{nH}$	
	0402	H=High Current		3N3= 3.3nH	C= $\pm 0.2\text{nH}$	
		Q= High Q		33N= 33nH	S= $\pm 0.3\text{nH}$	
				20N8=20.8nH	F= $\pm 1\%$	
					G= $\pm 2\%$	
					H= $\pm 3\%$	
					J= $\pm 5\%$	

# THIN FILM CHIP INDUCTOR

# SAL SERIES

## Electrical Specification

Size 0201 Standard Type

Part No.	Inductance	Tolerance	Q factor (min)	SRF	DCR	IDC
	(nH)	(nH or %)	Test Frequency	(GHz) min	( $\Omega$ ) max	(mA) max
SAL0201CT0N1□□□	0.1	B	8 / 500MHz	9	0.20	400
SAL0201CT0N2□□□	0.2	B, C	8 / 500MHz	9	0.20	400
SAL0201CT0N3□□□	0.3	B, C, S	8 / 500MHz	9	0.20	400
SAL0201CT0N4□□□	0.4	B, C, S	8 / 500MHz	9	0.25	350
SAL0201CT0N5□□□	0.5	B, C, S	8 / 500MHz	9	0.25	350
SAL0201CT0N6□□□	0.6	B, C, S	8 / 500MHz	9	0.25	350
SAL0201CT0N7□□□	0.7	B, C, S	8 / 500MHz	9	0.30	300
SAL0201CT0N8□□□	0.8	B, C, S	8 / 500MHz	9	0.30	300
SAL0201CT0N9□□□	0.9	B, C, S	8 / 500MHz	9	0.30	300
SAL0201CT1N0□□□	1.0	B, C, S	8 / 500MHz	9	0.30	300
SAL0201CT1N1□□□	1.1	B, C, S	8 / 500MHz	9	0.35	300
SAL0201CT1N2□□□	1.2	B, C, S	8 / 500MHz	9	0.35	300
SAL0201CT1N3□□□	1.3	B, C, S	8 / 500MHz	9	0.45	250
SAL0201CT1N4□□□	1.4	B, C, S	8 / 500MHz	9	0.45	250
SAL0201CT1N5□□□	1.5	B, C, S	8 / 500MHz	9	0.45	250
SAL0201CT1N6□□□	1.6	B, C, S	8 / 500MHz	9	0.55	200
SAL0201CT1N7□□□	1.7	B, C, S	8 / 500MHz	9	0.55	200
SAL0201CT1N8□□□	1.8	B, C, S	8 / 500MHz	9	0.55	200
SAL0201CT1N9□□□	1.9	B, C, S	8 / 500MHz	9	0.55	200
SAL0201CT2N0□□□	2.0	B, C, S	8 / 500MHz	8	0.70	200
SAL0201CT2N1□□□	2.1	B, C, S	8 / 500MHz	8	0.70	200
SAL0201CT2N2□□□	2.2	B, C, S	8 / 500MHz	8	0.70	200
SAL0201CT2N3□□□	2.3	B, C, S	8 / 500MHz	8	0.80	150
SAL0201CT2N4□□□	2.4	B, C, S	8 / 500MHz	8	0.80	150
SAL0201CT2N5□□□	2.5	B, C, S	8 / 500MHz	8	0.80	150
SAL0201CT2N6□□□	2.6	B, C, S	8 / 500MHz	8	0.80	150
SAL0201CT2N7□□□	2.7	B, C, S	8 / 500MHz	8	0.80	150
SAL0201CT2N8□□□	2.8	B, C, S	8 / 500MHz	6	1.00	150
SAL0201CT2N9□□□	2.9	B, C, S	8 / 500MHz	6	1.00	150
SAL0201CT3N0□□□	3.0	B, C, S	8 / 500MHz	6	1.00	150
SAL0201CT3N1□□□	3.1	B, C, S	8 / 500MHz	6	1.00	150
SAL0201CT3N2□□□	3.2	B, C, S	8 / 500MHz	6	1.00	150
SAL0201CT3N3□□□	3.3	B, C, S	8 / 500MHz	6	1.00	150
SAL0201CT3N4□□□	3.4	B, C, S	8 / 500MHz	6	1.20	150
SAL0201CT3N5□□□	3.5	B, C, S	8 / 500MHz	6	1.20	150
SAL0201CT3N6□□□	3.6	B, C, S	8 / 500MHz	6	1.20	150
SAL0201CT3N7□□□	3.7	B, C, S	8 / 500MHz	6	1.20	150
SAL0201CT3N8□□□	3.8	B, C, S	8 / 500MHz	6	1.20	150
SAL0201CT3N9□□□	3.9	B, C, S	8 / 500MHz	6	1.20	150
SAL0201CT4N0□□□	4.0	B, C, S	8 / 500MHz	6	1.20	150
SAL0201CT4N4□□□	4.4	B, C, S	8 / 500MHz	6	1.30	140
SAL0201CT4N7□□□	4.7	B, C, S	8 / 500MHz	6	1.40	130
SAL0201CT4N9□□□	4.9	B, C, S	8 / 500MHz	6	1.60	130
SAL0201CT5N6□□□	5.6	G, H, J	8 / 500MHz	4	1.80	130
SAL0201CT6N1□□□	6.1	G, H, J	8 / 500MHz	4	2.00	120
SAL0201CT6N8□□□	6.8	G, H, J	8 / 500MHz	4	2.30	110
SAL0201CT7N4□□□	7.4	G, H, J	8 / 500MHz	4	2.80	110
SAL0201CT8N2□□□	8.2	G, H, J	8 / 500MHz	3	3.00	110
SAL0201CT9N1□□□	9.1	G, H, J	8 / 500MHz	3	3.25	100
SAL0201CT9N2□□□	9.2	G, H, J	8 / 500MHz	3	3.25	100
SAL0201CT10N□□□	10	G, H, J	8 / 500MHz	2	3.50	80

\*\* Tolerance: B=±0.1nH, C=±0.2nH, S=±0.3nH, G=±2%, H=±3%, J=±5%

\*\* Operating Temperature Range: -55°C to +125°C

\*\* Unspecified values are available on request.

\*\* Test Equipment: HP4287A+Agilent 16196C

# THIN FILM CHIP INDUCTOR

# SAL SERIES

## Electrical Specification

### Size 0201 High Current Type

Part No.	Inductance	Tolerance	Q factor (min)	SRF	DCR	IDC
	(nH)	(nH or %)	Test Frequency	(GHz) min	(Ω) max	(mA) max
SAL0201HT0N1□□□	0.1	B	10 / 500MHz	6	0.05	600
SAL0201HT0N2□□□	0.2	B, C	10 / 500MHz	6	0.05	600
SAL0201HT0N3□□□	0.3	B, C, S	10 / 500MHz	6	0.05	600
SAL0201HT0N4□□□	0.4	B, C, S	10 / 500MHz	6	0.05	600
SAL0201HT0N5□□□	0.5	B, C, S	10 / 500MHz	6	0.10	600
SAL0201HT0N6□□□	0.6	B, C, S	10 / 500MHz	6	0.10	600
SAL0201HT0N7□□□	0.7	B, C, S	10 / 500MHz	6	0.10	600
SAL0201HT0N8□□□	0.8	B, C, S	10 / 500MHz	6	0.10	600
SAL0201HT0N9□□□	0.9	B, C, S	10 / 500MHz	6	0.10	600
SAL0201HT1N0□□□	1.0	B, C, S	10 / 500MHz	6	0.15	600
SAL0201HT1N1□□□	1.1	B, C, S	10 / 500MHz	6	0.15	600
SAL0201HT1N2□□□	1.2	B, C, S	10 / 500MHz	6	0.15	600
SAL0201HT1N3□□□	1.3	B, C, S	10 / 500MHz	6	0.20	600
SAL0201HT1N4□□□	1.4	B, C, S	10 / 500MHz	6	0.20	600
SAL0201HT1N5□□□	1.5	B, C, S	10 / 500MHz	6	0.25	600
SAL0201HT1N6□□□	1.6	B, C, S	10 / 500MHz	6	0.25	600
SAL0201HT1N7□□□	1.7	B, C, S	10 / 500MHz	6	0.30	500
SAL0201HT1N8□□□	1.8	B, C, S	10 / 500MHz	6	0.30	500
SAL0201HT1N9□□□	1.9	B, C, S	10 / 500MHz	6	0.30	500
SAL0201HT2N0□□□	2.0	B, C, S	10 / 500MHz	6	0.30	500
SAL0201HT2N1□□□	2.1	B, C, S	10 / 500MHz	6	0.30	500
SAL0201HT2N2□□□	2.2	B, C, S	10 / 500MHz	6	0.35	500
SAL0201HT2N3□□□	2.3	B, C, S	10 / 500MHz	6	0.35	500
SAL0201HT2N4□□□	2.4	B, C, S	10 / 500MHz	6	0.35	450
SAL0201HT2N5□□□	2.5	B, C, S	10 / 500MHz	6	0.35	450
SAL0201HT2N6□□□	2.6	B, C, S	10 / 500MHz	6	0.35	450
SAL0201HT2N7□□□	2.7	B, C, S	10 / 500MHz	6	0.35	450
SAL0201HT2N8□□□	2.8	B, C, S	10 / 500MHz	6	0.50	450
SAL0201HT2N9□□□	2.9	B, C, S	10 / 500MHz	6	0.50	450
SAL0201HT3N0□□□	3.0	B, C, S	10 / 500MHz	6	0.50	400
SAL0201HT3N1□□□	3.1	B, C, S	10 / 500MHz	6	0.50	400
SAL0201HT3N2□□□	3.2	B, C, S	10 / 500MHz	6	0.50	400
SAL0201HT3N3□□□	3.3	B, C, S	10 / 500MHz	6	0.50	400
SAL0201HT3N4□□□	3.4	B, C, S	10 / 500MHz	6	0.80	350
SAL0201HT3N5□□□	3.5	B, C, S	10 / 500MHz	6	0.80	350
SAL0201HT3N6□□□	3.6	B, C, S, H, J	10 / 500MHz	6	0.80	350
SAL0201HT3N7□□□	3.7	B, C, S, H, J	10 / 500MHz	6	0.80	350
SAL0201HT3N8□□□	3.8	B, C, S, H, J	10 / 500MHz	6	0.80	350
SAL0201HT3N9□□□	3.9	B, C, S, H, J	10 / 500MHz	6	0.80	350
SAL0201HT4N0□□□	4.0	B, C, S, H, J	10 / 500MHz	6	0.80	350
SAL0201HT4N4□□□	4.4	B, C, S, H, J	10 / 500MHz	6	0.50	300
SAL0201HT4N7□□□	4.7	B, C, S, H, J	10 / 500MHz	6	0.50	300
SAL0201HT4N9□□□	4.9	B, C, S, H, J	10 / 500MHz	6	0.60	300
SAL0201HT5N6□□□	5.6	G, J, H	10 / 500MHz	6	0.60	250
SAL0201HT6N1□□□	6.1	G, J, H	10 / 500MHz	5.5	0.70	250
SAL0201HT6N8□□□	6.8	G, J, H	10 / 500MHz	5	0.75	250
SAL0201HT7N4□□□	7.4	G, J, H	10 / 500MHz	5	0.80	200
SAL0201HT8N2□□□	8.2	G, J, H	10 / 500MHz	4.5	0.90	200
SAL0201HT9N1□□□	9.1	G, J, H	10 / 500MHz	4	1.05	175
SAL0201HT9N2□□□	9.2	G, J, H	10 / 500MHz	4	1.15	150
SAL0201HT10N□□□	10	G, J, H	10 / 500MHz	3.5	1.30	150

\*\* Tolerance: B=±0.1nH, C=±0.2nH, S=±0.3nH, G=±2%, H=±3%, J=±5%

\*\* Operating Temperature Range: -55°C to +125°C

\*\* Unspecified values are available on request.

\*\* Test Equipment: HP4287A+Agilent 16196C

# THIN FILM CHIP INDUCTOR

# SAL SERIES

## Electrical Specification

Size 0201 Hi-Q Type

Part No.	Inductance	Tolerance	Q factor (min)	SRF	DCR	IDC
	(nH)	(nH or %)	Test Frequency	(GHz) min	(Ω) max	(mA) max
SAL0201QT0N1□□□	0.1	B	14 / 500MHz	10	0.05	850
SAL0201QT0N2□□□	0.2	B, C	14 / 500MHz	10	0.05	800
SAL0201QT0N3□□□	0.3	B, C, S	14 / 500MHz	10	0.05	800
SAL0201QT0N4□□□	0.4	B, C, S	14 / 500MHz	10	0.05	750
SAL0201QT0N5□□□	0.5	B, C, S	14 / 500MHz	10	0.10	750
SAL0201QT0N6□□□	0.6	B, C, S	14 / 500MHz	9	0.10	750
SAL0201QT0N7□□□	0.7	B, C, S	14 / 500MHz	9	0.10	600
SAL0201QT0N8□□□	0.8	B, C, S	14 / 500MHz	9	0.10	600
SAL0201QT0N9□□□	0.9	B, C, S	14 / 500MHz	9	0.10	600
SAL0201QT1N0□□□	1.0	B, C, S	14 / 500MHz	9	0.15	600
SAL0201QT1N1□□□	1.1	B, C, S	14 / 500MHz	8	0.15	600
SAL0201QT1N2□□□	1.2	B, C, S	14 / 500MHz	8	0.15	600
SAL0201QT1N3□□□	1.3	B, C, S	14 / 500MHz	8	0.15	600
SAL0201QT1N4□□□	1.4	B, C, S	14 / 500MHz	8	0.15	600
SAL0201QT1N5□□□	1.5	B, C, S	14 / 500MHz	8	0.15	600
SAL0201QT1N6□□□	1.6	B, C, S	14 / 500MHz	8	0.15	600
SAL0201QT1N7□□□	1.7	B, C, S	14 / 500MHz	8	0.20	500
SAL0201QT1N8□□□	1.8	B, C, S	14 / 500MHz	8	0.20	500
SAL0201QT1N9□□□	1.9	B, C, S	14 / 500MHz	8	0.20	500
SAL0201QT2N0□□□	2.0	B, C, S	14 / 500MHz	8	0.20	500
SAL0201QT2N1□□□	2.1	B, C, S	14 / 500MHz	7.5	0.20	500
SAL0201QT2N2□□□	2.2	B, C, S	14 / 500MHz	7.5	0.20	500
SAL0201QT2N3□□□	2.3	B, C, S	14 / 500MHz	7.5	0.20	500
SAL0201QT2N4□□□	2.4	B, C, S	14 / 500MHz	7.5	0.25	450
SAL0201QT2N5□□□	2.5	B, C, S	14 / 500MHz	7.5	0.25	450
SAL0201QT2N6□□□	2.6	B, C, S	14 / 500MHz	7.5	0.25	450
SAL0201QT2N7□□□	2.7	B, C, S	14 / 500MHz	7.5	0.25	450
SAL0201QT2N8□□□	2.8	B, C, S	14 / 500MHz	7.5	0.25	450
SAL0201QT2N9□□□	2.9	B, C, S	14 / 500MHz	7.5	0.25	450
SAL0201QT3N0□□□	3.0	B, C, S	14 / 500MHz	7.5	0.30	400
SAL0201QT3N1□□□	3.1	B, C, S	14 / 500MHz	7	0.30	400
SAL0201QT3N2□□□	3.2	B, C, S	14 / 500MHz	7	0.30	400
SAL0201QT3N3□□□	3.3	B, C, S	14 / 500MHz	7	0.30	400
SAL0201QT3N4□□□	3.4	B, C, S	14 / 500MHz	7	0.40	350
SAL0201QT3N5□□□	3.5	B, C, S	14 / 500MHz	7	0.40	350
SAL0201QT3N6□□□	3.6	B, C, S	14 / 500MHz	7	0.40	350
SAL0201QT3N7□□□	3.7	B, C, S	14 / 500MHz	7	0.40	350
SAL0201QT3N8□□□	3.8	B, C, S	14 / 500MHz	6.5	0.40	350
SAL0201QT3N9□□□	3.9	B, C, S	14 / 500MHz	6.5	0.40	350
SAL0201QT4N0□□□	4.0	B, C, S	14 / 500MHz	6.5	0.40	350
SAL0201QT4N4□□□	4.4	B, C, S	14 / 500MHz	6.5	0.50	300
SAL0201QT4N7□□□	4.7	B, C, S	14 / 500MHz	6	0.50	300
SAL0201QT4N9□□□	4.9	B, C, S	14 / 500MHz	6	0.60	300
SAL0201QT5N6□□□	5.6	G, J	14 / 500MHz	6	0.60	250
SAL0201QT6N1□□□	6.1	G, J	14 / 500MHz	5.5	0.70	250
SAL0201QT6N8□□□	6.8	G, J	14 / 500MHz	5	0.75	250
SAL0201QT7N4□□□	7.4	G, J	14 / 500MHz	5	0.80	200
SAL0201QT8N2□□□	8.2	G, J	14 / 500MHz	4.5	0.90	200
SAL0201QT9N1□□□	9.1	G, J	14 / 500MHz	4	1.05	175
SAL0201QT9N2□□□	9.2	G, J	14 / 500MHz	4	1.15	150
SAL0201QT10N□□□	10	G, J	14 / 500MHz	3.5	1.30	150

\*\* Tolerance: B=±0.1nH , C=±0.2nH , S=±0.3nH, G=±2% , J=±5%

\*\* Operating Temperature: -55°C to +125°C

\*\* Unspecified values are available on request.

\*\* Test Equipment: HP4287A+Agilent 16196B

# THIN FILM CHIP INDUCTOR

# SAL SERIES

## Electrical Specification

### Size 0402 Standard Type

Part No.	Inductance	Tolerance	Q factor (min)	SRF	DCR	IDC
	(nH)	(nH or %)	Test Frequency	(GHz) min	(Ω) max	(mA) max
SAL0402CT0N2□□□	0.2	B, C	13 / 500MHz	14	0.10	800
SAL0402CT0N3□□□	0.3	B, C, S	13 / 500MHz	14	0.10	800
SAL0402CT0N4□□□	0.4	B, C, S	13 / 500MHz	14	0.10	800
SAL0402CT0N5□□□	0.5	B, C, S	13 / 500MHz	14	0.15	700
SAL0402CT0N6□□□	0.6	B, C, S	13 / 500MHz	14	0.15	700
SAL0402CT0N8□□□	0.8	B, C, S	13 / 500MHz	14	0.15	700
SAL0402CT0N9□□□	0.9	B, C, S	13 / 500MHz	14	0.15	700
SAL0402CT1N0□□□	1.0	B, C, S	13 / 500MHz	12	0.15	700
SAL0402CT1N1□□□	1.1	B, C, S	13 / 500MHz	12	0.15	700
SAL0402CT1N2□□□	1.2	B, C, S	13 / 500MHz	12	0.15	700
SAL0402CT1N3□□□	1.3	B, C, S	13 / 500MHz	10	0.25	700
SAL0402CT1N4□□□	1.4	B, C, S	13 / 500MHz	10	0.25	700
SAL0402CT1N5□□□	1.5	B, C, S	13 / 500MHz	10	0.25	700
SAL0402CT1N6□□□	1.6	B, C, S	13 / 500MHz	10	0.25	560
SAL0402CT1N7□□□	1.7	B, C, S	13 / 500MHz	10	0.25	560
SAL0402CT1N8□□□	1.8	B, C, S	13 / 500MHz	10	0.25	560
SAL0402CT1N9□□□	1.9	B, C, S	13 / 500MHz	8	0.35	560
SAL0402CT2N0□□□	2.0	B, C, S	13 / 500MHz	8	0.35	560
SAL0402CT2N1□□□	2.1	B, C, S	13 / 500MHz	8	0.35	440
SAL0402CT2N2□□□	2.2	B, C, S	13 / 500MHz	8	0.35	440
SAL0402CT2N3□□□	2.3	B, C, S	13 / 500MHz	8	0.35	440
SAL0402CT2N4□□□	2.4	B, C, S	13 / 500MHz	8	0.35	440
SAL0402CT2N5□□□	2.5	B, C, S	13 / 500MHz	8	0.35	440
SAL0402CT2N6□□□	2.6	B, C, S	13 / 500MHz	8	0.35	440
SAL0402CT2N7□□□	2.7	B, C, S	13 / 500MHz	8	0.35	440
SAL0402CT2N8□□□	2.8	B, C, S	13 / 500MHz	6	0.45	380
SAL0402CT2N9□□□	2.9	B, C, S	13 / 500MHz	6	0.45	380
SAL0402CT3N0□□□	3.0	B, C, S	13 / 500MHz	6	0.45	380
SAL0402CT3N1□□□	3.1	B, C, S	13 / 500MHz	6	0.45	380
SAL0402CT3N2□□□	3.2	B, C, S	13 / 500MHz	6	0.45	380
SAL0402CT3N3□□□	3.3	B, C, S	13 / 500MHz	6	0.45	380
SAL0402CT3N4□□□	3.4	B, C, S	13 / 500MHz	6	0.55	380
SAL0402CT3N5□□□	3.5	B, C, S	13 / 500MHz	6	0.55	380
SAL0402CT3N6□□□	3.6	B, C, S	13 / 500MHz	6	0.55	380
SAL0402CT3N7□□□	3.7	B, C, S	13 / 500MHz	6	0.55	340
SAL0402CT3N8□□□	3.8	B, C, S	13 / 500MHz	6	0.55	340
SAL0402CT3N9□□□	3.9	B, C, S	13 / 500MHz	6	0.55	340
SAL0402CT4N3□□□	4.3	B, C, S	13 / 500MHz	6	0.65	320
SAL0402CT4N7□□□	4.7	B, C, S	13 / 500MHz	6	0.65	320
SAL0402CT5N4□□□	5.4	B, C, S	13 / 500MHz	6	0.85	280
SAL0402CT5N6□□□	5.6	B, C, S	13 / 500MHz	6	0.85	280
SAL0402CT5N9□□□	5.9	B, C, S	13 / 500MHz	6	0.85	280
SAL0402CT6N5□□□	6.5	B, C, S	13 / 500MHz	6	1.05	260
SAL0402CT6N8□□□	6.8	B, C, S	13 / 500MHz	6	1.05	260
SAL0402CT7N2□□□	7.2	B, C, S	13 / 500MHz	6	1.05	260
SAL0402CT8N0□□□	8.0	B, C, S	13 / 500MHz	5.5	1.25	220
SAL0402CT8N1□□□	8.1	B, C, S	13 / 500MHz	5.5	1.25	220
SAL0402CT8N2□□□	8.2	B, C, S	13 / 500MHz	5.5	1.25	220
SAL0402CT9N1□□□	9.1	B, C, S	13 / 500MHz	5.5	1.25	220
SAL0402CT10N□□□	10.0	F, G, H, J	13 / 500MHz	4.5	1.35	200
SAL0402CT10N8□□□	10.8	F, G, H, J	13 / 500MHz	4.5	1.35	200
SAL0402CT12N□□□	12.0	F, G, H, J	13 / 500MHz	3.7	1.55	180
SAL0402CT13N8□□□	13.8	F, G, H, J	13 / 500MHz	3.7	1.75	180
SAL0402CT15N□□□	15.0	F, G, H, J	13 / 500MHz	3.3	1.75	130
SAL0402CT17N□□□	17.0	F, G, H, J	13 / 500MHz	3.1	1.95	100
SAL0402CT18N□□□	18.0	F, G, H, J	13 / 500MHz	3.1	2.15	100
SAL0402CT20N8□□□	20.8	F, G, H, J	13 / 500MHz	2.8	2.55	90
SAL0402CT22N□□□	22.0	F, G, H, J	13 / 500MHz	2.8	2.65	90
SAL0402CT27N□□□	27.0	F, G, H, J	13 / 500MHz	2.5	3.25	75
SAL0402CT33N□□□	33.0	J	13 / 500MHz	2.5	4.50	75

\*Tolerance: B=±0.1nH, C=±0.2nH, S=±0.3nH, G=±2%, H=±3%, J=±5%

\*Operating Temperature: -55°C to +125°C

# THIN FILM CHIP INDUCTOR

# SAL SERIES

## Electrical Specification

Size 0402 Hi-Q Type

Part No.	Inductance	Tolerance	Q factor (min)	SRF	DCR	IDC
	(nH)	(nH or %)	Test Frequency	(GHz) min	( $\Omega$ ) max	(mA) max
SAL0402QT0N2□□□	0.2	B, C	16 / 500MHz	14	0.10	1000
SAL0402QT0N3□□□	0.3	B, C, S	16 / 500MHz	14	0.10	1000
SAL0402QT0N4□□□	0.4	B, C, S	16 / 500MHz	14	0.10	1000
SAL0402QT0N5□□□	0.5	B, C, S	16 / 500MHz	14	0.12	850
SAL0402QT0N6□□□	0.6	B, C, S	16 / 500MHz	14	0.12	850
SAL0402QT0N7□□□	0.7	B, C, S	16 / 500MHz	14	0.12	850
SAL0402QT0N8□□□	0.8	B, C, S	16 / 500MHz	14	0.12	850
SAL0402QT0N9□□□	0.9	B, C, S	16 / 500MHz	14	0.12	850
SAL0402QT1N0□□□	1.0	B, C, S	16 / 500MHz	12	0.12	850
SAL0402QT1N1□□□	1.1	B, C, S	16 / 500MHz	12	0.12	850
SAL0402QT1N2□□□	1.2	B, C, S	16 / 500MHz	12	0.12	850
SAL0402QT1N3□□□	1.3	B, C, S	16 / 500MHz	10	0.20	850
SAL0402QT1N4□□□	1.4	B, C, S	16 / 500MHz	10	0.20	850
SAL0402QT1N5□□□	1.5	B, C, S	16 / 500MHz	10	0.20	850
SAL0402QT1N6□□□	1.6	B, C, S	16 / 500MHz	10	0.20	675
SAL0402QT1N7□□□	1.7	B, C, S	16 / 500MHz	10	0.20	675
SAL0402QT1N8□□□	1.8	B, C, S	16 / 500MHz	10	0.20	675
SAL0402QT1N9□□□	1.9	B, C, S	16 / 500MHz	8	0.28	675
SAL0402QT2N0□□□	2.0	B, C, S	16 / 500MHz	8	0.28	675
SAL0402QT2N1□□□	2.1	B, C, S	16 / 500MHz	8	0.28	530
SAL0402QT2N2□□□	2.2	B, C, S	16 / 500MHz	8	0.28	530
SAL0402QT2N3□□□	2.3	B, C, S	16 / 500MHz	8	0.28	530
SAL0402QT2N4□□□	2.4	B, C, S	16 / 500MHz	8	0.28	530
SAL0402QT2N5□□□	2.5	B, C, S	16 / 500MHz	8	0.28	530
SAL0402QT2N6□□□	2.6	B, C, S	16 / 500MHz	8	0.28	530
SAL0402QT2N7□□□	2.7	B, C, S	16 / 500MHz	8	0.28	530
SAL0402QT2N8□□□	2.8	B, C, S	16 / 500MHz	6	0.35	460
SAL0402QT2N9□□□	2.9	B, C, S	16 / 500MHz	6	0.35	460
SAL0402QT3N0□□□	3.0	B, C, S	16 / 500MHz	6	0.35	460
SAL0402QT3N1□□□	3.1	B, C, S	16 / 500MHz	6	0.35	460
SAL0402QT3N2□□□	3.2	B, C, S	16 / 500MHz	6	0.35	460
SAL0402QT3N3□□□	3.3	B, C, S	16 / 500MHz	6	0.35	460
SAL0402QT3N4□□□	3.4	B, C, S	16 / 500MHz	6	0.45	460
SAL0402QT3N5□□□	3.5	B, C, S	16 / 500MHz	6	0.45	460
SAL0402QT3N6□□□	3.6	B, C, S	16 / 500MHz	6	0.45	460
SAL0402QT3N7□□□	3.7	B, C, S	16 / 500MHz	6	0.45	410
SAL0402QT3N8□□□	3.8	B, C, S	16 / 500MHz	6	0.45	410
SAL0402QT3N9□□□	3.9	B, C, S	16 / 500MHz	6	0.45	410
SAL0402QT4N3□□□	4.3	B, C, S	16 / 500MHz	6	0.45	350
SAL0402QT4N7□□□	4.7	B, C, S	16 / 500MHz	6	0.55	350
SAL0402QT5N4□□□	5.4	B, C, S	16 / 500MHz	6	0.55	310
SAL0402QT5N6□□□	5.6	B, C, S	16 / 500MHz	6	0.70	310
SAL0402QT5N9□□□	5.9	B, C, S	16 / 500MHz	6	0.70	310
SAL0402QT6N5□□□	6.5	B, C, S	16 / 500MHz	6	0.90	290
SAL0402QT6N8□□□	6.8	B, C, S	16 / 500MHz	6	0.90	290
SAL0402QT7N2□□□	7.2	B, C, S	16 / 500MHz	6	0.90	290
SAL0402QT8N0□□□	8.0	B, C, S	16 / 500MHz	5.5	1.00	245
SAL0402QT8N1□□□	8.1	B, C, S	16 / 500MHz	5.5	1.00	245
SAL0402QT8N2□□□	8.2	B, C, S	16 / 500MHz	5.5	1.00	245
SAL0402QT9N1□□□	9.1	B, C, S	16 / 500MHz	5.5	1.00	245
SAL0402QT10N□□□	10.0	F, G, H, J	16 / 500MHz	4.5	1.10	220

\*\* Tolerance: B=±0.1nH, C=±0.2nH, S=±0.3nH, G=±2%, H=±3%, J=±5%

\*\* Operating Temperature: -55°C to +125°C

\*\* Unspecified values are available on request.

\*\* Test Equipment: HP4287A+Agilent 16196B

# THIN FILM CHIP INDUCTOR

# SAL SERIES

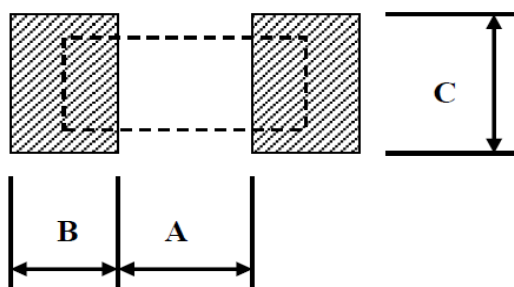
## ■ Environmental Characteristics

Item	Requirement	Test Condition
Inductance	As specification	Measuring equipment and fixture: 0201: HP4287+Agilent16196C 0402: HP4287+Agilent16193B
Insulation Resistance	> 1000MΩ	MIL-STD-202 Method 302 Apply 100Vdc for 1minute
Damp Heat with Load	$\Delta L \leq 10\%$	MIL-STD-202 Method 103B 40±2°C, 90-95% R.H. Max W.V for 1000hrs With 1.5 hours "ON" and 0.5 hour "OFF"
Bending Strength	As Spec.	JIS-C-5201-1 4.33 Bending amplitude 3mm for 60 seconds
Solderability	95% min. coverage	MIL-STD-202 Method 208H 245±5°C for 3 seconds
Resistance to Soldering Heat	$\Delta L \leq 10\%$	MIL-STD-202 Method 210E 260±5°C for 10 seconds
Dielectric Withstand Voltage	> 100V	MIL-STD-202 Method 301 Apply 100VA(rms) for 60 seconds
High Temperature Exposure	$\Delta L \leq 10\%$	MIL-STD-202, Method 108 125±3°C for 1000
Low Temperature Storage	$\Delta L \leq 10\%$	IEC 60068-2-1 Exposed to a temperature of -55±3°C for 2 hrs
Temperature Cycle	$\Delta L \leq 10\%$	JESD22 Method JA-104 -55°C ~ +125°C , 10 cycles

■ Storage Temperature : 15 ~ 28°C; Humidity < 80% RH

■ Shelf Life : 2 years from production date

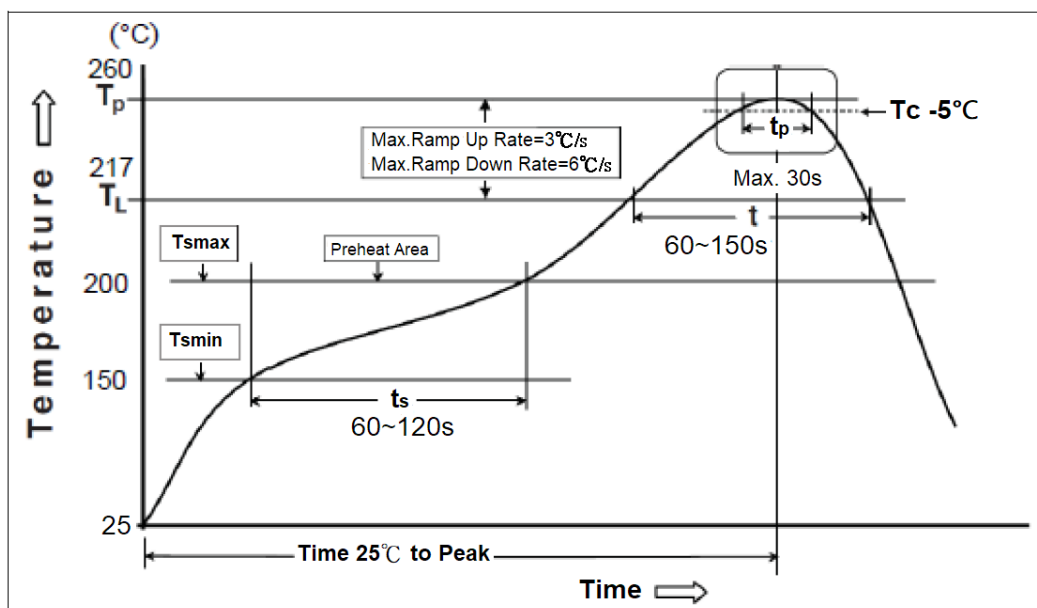
## ■ Recommend Land Pattern



Size	A	B	C
0201	0.30	0.25	0.30±0.2
0402	0.50	0.45	0.60±0.2



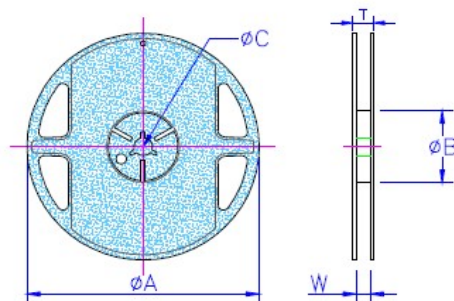
■ **Soldering Condition (Ref. IPC/JEDEC J-STD-020 & J-STD-002)**



Reflow Profiles	
Profile Feature	Pb-Free Assembly
<b>Preheat</b>	
Min. Temperature ( $T_{smin}$ )	150 °C
Max Temperature ( $T_{smax}$ )	200 °C
Preheating time ( $t_s$ ) from ( $T_{smin}$ to $T_{smax}$ )	60-120 seconds
Ramp-up rate ( $T_L$ to $T_p$ )	3 °C/second max.
Liquidous temperature ( $T_L$ )	217 °C
Time ( $t_L$ ) maintained above $T_L$	60-150 seconds
Min. Peak temperature ( $T_p$ min)	235°C
Max. Peak temperature ( $T_p$ max)	260°C
Time ( $t_p$ ) within 5 °C of the specified classification temperature ( $T_c$ )	30 seconds max.
Ramp-down rate ( $T_p$ to $T_L$ )	6 °C/second max.
Time 25 °C to peak temperature	8 minutes max.

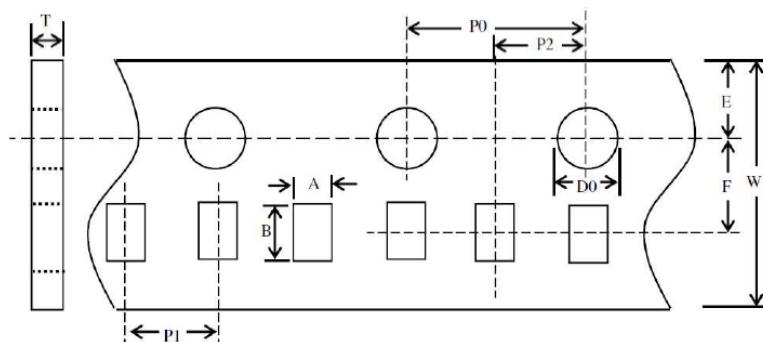
## ■ Packaging

Reel Specification & Packaging Quantity : (Unit:mm)



Type	$\phi A$	$\phi B$	$\phi C$	W	T	Quantity(EA)
SAL0201	178±1.0	60+1.0	13.5±0.7	9.5±1.0	11.5±1.0	10000
SAL0402	178±1.0	60+1.0	13.5±0.7	9.5±1.0	11.5±1.0	10000

Paper Tape Specification : (Unit:mm)



Type	A	B	W	E	F	P0	P1	P2	$\phi D0$	T
SAL0201	4.0±0.05	0.7±0.05	8.0±0.10	1.75±0.05	3.5±0.05	4.0±0.10	2.0±0.05	2.0±0.05	1.55±0.03	0.42±0.02
SAL0402	0.7±0.05	1.16±0.05	8.0±0.10	1.75±0.05	3.5±0.05	4.0±0.10	2.0±0.05	2.0±0.05	1.55±0.05	0.43±0.03