

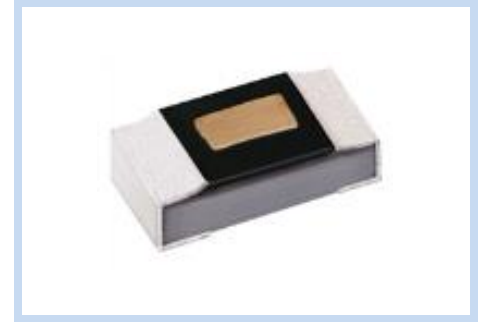
# Signal Inductor Thin Film Type

SIT Series

MERITEK

## FEATURE

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

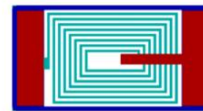
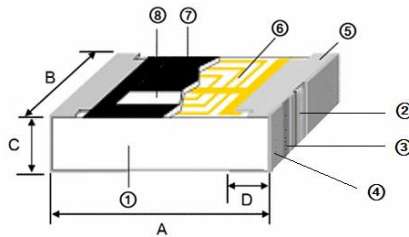


## PART NUMBERING SYSTEM

SI   T   0201   B   0R1   AL   C  
 (1)   (2)   (3)   (4)   (5)   (6)   (7)

No	item	Digit	Description	Series Reference
(1)	Meritek Series	SI	Signal Inductor	LI: Leaded Inductor   PI: Power Inductor
(2)	Type	T	T: Thin film	A: Air Wound Coil B: Balun C: Common Mode Choke E: Ceramic Chip F: Ferrite Chip M: Multi-Layer O: Toroidal Coil W: Wire Wound
(3)	Dimension	0201	Dimension Information	Footprint information or Size Code
(4)	Tolerance	B	B: $\pm 0.1\text{nH}$	C: $\pm 0.2\text{nH}$ , S: $\pm 0.3\text{nH}$ , F: $\pm 1\%$ , G: $\pm 2\%$ , H: $\pm 3\%$ , J: $\pm 5\%$
(5)	Inductance	0R1	0R1: 0.1nH	Three or four digits: Inductance 10R8: 10.8nH, 151: 150nH
(6)	Package Code	AL	Package Information	Thin Film Inductor package reference
(7)	Current	C	C: High Current	Q: High Q, Blank: Standard

## DIMENSION



Unit: mm

Size	A	B	C	D	Weight (g) (1000pcs)
0201	0.60 $\pm$ 0.05	0.30 $\pm$ 0.05	0.23 $\pm$ 0.05	0.15 $\pm$ 0.05	0.23
0402	1.0 $\pm$ 0.05	0.5 $\pm$ 0.05	0.32 $\pm$ 0.05	0.2 $\pm$ 0.10	0.9

## CONSTRUCTION

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

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## ELECTRICAL CHARACTERISTIC

### 0201AL Standard Type

Part Number	Inductance (nH)	Tolerance (± %)	Min Q Factor	Min SRF (GHz)	Max DCR (Ω)	Max IDC (mA)
SIT0201□0R1AL	0.1	B,C,S	8 / 500MHz	9	0.20	400
SIT0201□0R2AL	0.2	B,C,S	8 / 500MHz	9	0.20	400
SIT0201□0R3AL	0.3	B,C,S	8 / 500MHz	9	0.20	400
SIT0201□0R4AL	0.4	B,C,S	8 / 500MHz	9	0.25	350
SIT0201□0R5AL	0.5	B,C,S	8 / 500MHz	9	0.25	350
SIT0201□0R6AL	0.6	B,C,S	8 / 500MHz	9	0.25	350
SIT0201□0R7AL	0.7	B,C,S	8 / 500MHz	9	0.30	300
SIT0201□0R8AL	0.8	B,C,S	8 / 500MHz	9	0.30	300
SIT0201□0R9AL	0.9	B,C,S	8 / 500MHz	9	0.30	300
SIT0201□1R0AL	1.0	B,C,S	8 / 500MHz	9	0.30	300
SIT0201□1R1AL	1.1	B,C,S	8 / 500MHz	9	0.35	300
SIT0201□1R2AL	1.2	B,C,S	8 / 500MHz	9	0.35	300
SIT0201□1R3AL	1.3	B,C,S	8 / 500MHz	9	0.45	250
SIT0201□1R4AL	1.4	B,C,S	8 / 500MHz	9	0.45	250
SIT0201□1R5AL	1.5	B,C,S	8 / 500MHz	9	0.45	250
SIT0201□1R6AL	1.6	B,C,S	8 / 500MHz	9	0.55	200
SIT0201□1R7AL	1.7	B,C,S	8 / 500MHz	9	0.55	200
SIT0201□1R8AL	1.8	B,C,S	8 / 500MHz	9	0.55	200
SIT0201□1R9AL	1.9	B,C,S	8 / 500MHz	9	0.55	200
SIT0201□2R0AL	2.0	B,C,S	8 / 500MHz	8	0.70	200
SIT0201□2R1AL	2.1	B,C,S	8 / 500MHz	8	0.70	200
SIT0201□2R2AL	2.2	B,C,S	8 / 500MHz	8	0.70	200
SIT0201□2R3AL	2.3	B,C,S	8 / 500MHz	8	0.80	150
SIT0201□2R4AL	2.4	B,C,S	8 / 500MHz	8	0.80	150
SIT0201□2R5AL	2.5	B,C,S	8 / 500MHz	8	0.80	150
SIT0201□2R6AL	2.6	B,C,S	8 / 500MHz	8	0.80	150
SIT0201□2R7AL	2.7	B,C,S	8 / 500MHz	8	0.80	150
SIT0201□2R8AL	2.8	B,C,S	8 / 500MHz	6	1.00	150
SIT0201□2R9AL	2.9	B,C,S	8 / 500MHz	6	1.00	150
SIT0201□3R0AL	3.0	B,C,S	8 / 500MHz	6	1.00	150
SIT0201□3R1AL	3.1	B,C,S	8 / 500MHz	6	1.00	150
SIT0201□3R2AL	3.2	B,C,S	8 / 500MHz	6	1.00	150
SIT0201□3R3AL	3.3	B,C,S	8 / 500MHz	6	1.00	150
SIT0201□3R4AL	3.4	B,C,S	8 / 500MHz	6	1.20	150
SIT0201□3R5AL	3.5	B,C,S	8 / 500MHz	6	1.20	150
SIT0201□3R6AL	3.6	B,C,S	8 / 500MHz	6	1.20	150
SIT0201□3R7AL	3.7	B,C,S	8 / 500MHz	6	1.20	150
SIT0201□3R8AL	3.8	B,C,S	8 / 500MHz	6	1.20	150
SIT0201□3R9AL	3.9	B,C,S	8 / 500MHz	6	1.20	150
SIT0201□4R0AL	4.0	B,C,S	8 / 500MHz	6	1.20	150
SIT0201□4R4AL	4.4	B,C,S	8 / 500MHz	6	1.30	140
SIT0201□4R7AL	4.7	B,C,S	8 / 500MHz	6	1.40	130
SIT0201□4R9AL	4.9	B,C,S	8 / 500MHz	6	1.60	130

Notes:

- (Tolerance: B: ±0.1nH, C: ±0.2nH, S: ±0.3nH)
- Operating Temperature: -40~+85°C
- Test Equipment: HP4287A+Agilent 16196C

# Signal Inductor Thin Film Type

SIT Series

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## ELECTRICAL CHARACTERISTIC (CONTINUE)

### 0201AL Standard Type

Part Number	Inductance (nH)	Tolerance (± %)	Min Q Factor	Min SRF (GHz)	Max DCR (Ω)	Max IDC (mA)
SIT0201□5R6AL	5.6	G,J	8 / 500MHz	4	1.80	130
SIT0201□6R1AL	6.1	G,J	8 / 500MHz	4	2.00	120
SIT0201□6R8AL	6.8	G,J	8 / 500MHz	4	2.30	110
SIT0201□7R4AL	7.4	G,J	8 / 500MHz	4	2.80	110
SIT0201□8R2AL	8.2	G,J	8 / 500MHz	3	3.00	110
SIT0201□9R1AL	9.1	G,J	8 / 500MHz	3	3.25	100
SIT0201□9R2AL	9.2	G,J	8 / 500MHz	3	3.25	100
SIT0201□100AL	10	G,J	8 / 500MHz	2	3.50	80

Notes:

- (Tolerance: G: ±2%, J: ±5%)
- Operating Temperature: -40~+85°C
- Test Equipment: HP4287A+Agilent 16196C

## ELECTRICAL CHARACTERISTIC

### 0201AL High Current Type

Part Number	Inductance (nH)	Tolerance (± %)	Min Q Factor	Min SRF (GHz)	Max DCR (Ω)	Max IDC (mA)
SIT0201□0R1ALC	0.1	B,C,S	10 / 500MHz	6	0.05	600
SIT0201□0R2ALC	0.2	B,C,S	10 / 500MHz	6	0.05	600
SIT0201□0R3ALC	0.3	B,C,S	10 / 500MHz	6	0.05	600
SIT0201□0R4ALC	0.4	B,C,S	10 / 500MHz	6	0.05	600
SIT0201□0R5ALC	0.5	B,C,S	10 / 500MHz	6	0.10	600
SIT0201□0R6ALC	0.6	B,C,S	10 / 500MHz	6	0.10	600
SIT0201□0R7ALC	0.7	B,C,S	10 / 500MHz	6	0.10	600
SIT0201□0R8ALC	0.8	B,C,S	10 / 500MHz	6	0.10	600
SIT0201□0R9ALC	0.9	B,C,S	10 / 500MHz	6	0.10	600
SIT0201□1R0ALC	1.0	B,C,S	10 / 500MHz	6	0.15	600
SIT0201□1R1ALC	1.1	B,C,S	10 / 500MHz	6	0.15	600
SIT0201□1R2ALC	1.2	B,C,S	10 / 500MHz	6	0.15	600
SIT0201□1R3ALC	1.3	B,C,S	10 / 500MHz	6	0.20	600
SIT0201□1R4ALC	1.4	B,C,S	10 / 500MHz	6	0.20	600
SIT0201□1R5ALC	1.5	B,C,S	10 / 500MHz	6	0.25	600
SIT0201□1R6ALC	1.6	B,C,S	10 / 500MHz	6	0.25	600
SIT0201□1R7ALC	1.7	B,C,S	10 / 500MHz	6	0.30	500
SIT0201□1R8ALC	1.8	B,C,S	10 / 500MHz	6	0.30	500
SIT0201□1R9ALC	1.9	B,C,S	10 / 500MHz	6	0.30	500
SIT0201□2R0ALC	2.0	B,C,S	10 / 500MHz	6	0.30	500
SIT0201□2R1ALC	2.1	B,C,S	10 / 500MHz	6	0.30	500
SIT0201□2R2ALC	2.2	B,C,S	10 / 500MHz	6	0.35	500
SIT0201□2R3ALC	2.3	B,C,S	10 / 500MHz	6	0.35	500
SIT0201□2R4ALC	2.4	B,C,S	10 / 500MHz	6	0.35	450
SIT0201□2R5ALC	2.5	B,C,S	10 / 500MHz	6	0.35	450
SIT0201□2R6ALC	2.6	B,C,S	10 / 500MHz	6	0.35	450
SIT0201□2R7ALC	2.7	B,C,S	10 / 500MHz	6	0.35	450
SIT0201□2R8ALC	2.8	B,C,S	10 / 500MHz	6	0.50	450

Notes:

- (Tolerance: B: ±0.1nH, C: ±0.2nH, S: ±0.3nH)
- Operating Temperature: -40~+85°C
- Test Equipment: HP4287A+Agilent 16196C

# Signal Inductor Thin Film Type

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## ELECTRICAL CHARACTERISTIC (CONTINUE)

### 0201AL High Current Type

Part Number	Inductance (nH)	Tolerance (± %)	Min Q Factor	Min SRF (GHz)	Max DCR (Ω)	Max IDC (mA)
SIT0201□2R9ALC	2.9	B,C,S	10 / 500MHz	6	0.50	450
SIT0201□3R0ALC	3.0	B,C,S	10 / 500MHz	6	0.50	400
SIT0201□3R1ALC	3.1	B,C,S	10 / 500MHz	6	0.50	400
SIT0201□3R2ALC	3.2	B,C,S	10 / 500MHz	6	0.50	400
SIT0201□3R3ALC	3.3	B,C,S	10 / 500MHz	6	0.50	400
SIT0201□3R4ALC	3.4	B,C,S	10 / 500MHz	6	0.80	350
SIT0201□3R5ALC	3.5	B,C,S	10 / 500MHz	6	0.80	350
SIT0201□3R6ALC	3.6	B,C,S	10 / 500MHz	6	0.80	350
SIT0201□3R7ALC	3.7	B,C,S	10 / 500MHz	6	0.80	350
SIT0201□3R8ALC	3.8	B,C,S	10 / 500MHz	6	0.80	350
SIT0201□3R9ALC	3.9	B,C,S	10 / 500MHz	6	0.80	350
SIT0201□4R0ALC	4.0	B,C,S	10 / 500MHz	6	0.80	350
SIT0201□4R4ALC	4.4	B,C,S	10 / 500MHz	6	0.50	300
SIT0201□4R7ALC	4.7	B,C,S	10 / 500MHz	6	0.50	300
SIT0201□4R9ALC	4.9	B,C,S	10 / 500MHz	6	0.60	300
SIT0201□5R6ALC	5.6	G,J	10 / 500MHz	6	0.60	250
SIT0201□6R1ALC	6.1	G,J	10 / 500MHz	5.5	0.70	250
SIT0201□6R8ALC	6.8	G,J	10 / 500MHz	5	0.75	250
SIT0201□7R4ALC	7.4	G,J	10 / 500MHz	5	0.80	200
SIT0201□8R2ALC	8.2	G,J	10 / 500MHz	4.5	0.90	200
SIT0201□9R1ALC	9.1	G,J	10 / 500MHz	4	1.05	175
SIT0201□9R2ALC	9.2	G,J	10 / 500MHz	4	1.15	150
SIT0201□100ALC	10	G,J	10 / 500MHz	3.5	1.30	150

Notes:

- (Tolerance: B: ±0.1nH, C: ±0.2nH, S: ±0.3nH, G: ±2%, J: ±5%)
- Operating Temperature: -40~+85°C
- Test Equipment: HP4287A+Agilent 16196C

## ELECTRICAL CHARACTERISTIC

### 0201AL High Q Type

Part Number	Inductance (nH)	Tolerance (± %)	Min Q Factor	Min SRF (GHz)	Max DCR (Ω)	Max IDC (mA)
SIT0201□0R1ALQ	0.1	B,C,S	14 / 500MHz	10	0.05	850
SIT0201□0R2ALQ	0.2	B,C,S	14 / 500MHz	10	0.05	800
SIT0201□0R3ALQ	0.3	B,C,S	14 / 500MHz	10	0.05	800
SIT0201□0R4ALQ	0.4	B,C,S	14 / 500MHz	10	0.05	750
SIT0201□0R5ALQ	0.5	B,C,S	14 / 500MHz	10	0.10	750
SIT0201□0R6ALQ	0.6	B,C,S	14 / 500MHz	9	0.10	750
SIT0201□0R7ALQ	0.7	B,C,S	14 / 500MHz	9	0.10	600
SIT0201□0R8ALQ	0.8	B,C,S	14 / 500MHz	9	0.10	600
SIT0201□0R9ALQ	0.9	B,C,S	14 / 500MHz	9	0.10	600
SIT0201□1R0ALQ	1.0	B,C,S	14 / 500MHz	9	0.15	600
SIT0201□1R1ALQ	1.1	B,C,S	14 / 500MHz	8	0.15	600
SIT0201□1R2ALQ	1.2	B,C,S	14 / 500MHz	8	0.15	600

Notes:

- (Tolerance: B: ±0.1nH, C: ±0.2nH, S: ±0.3nH)
- Operating Temperature: -40~+85°C
- Test Equipment: HP4287A+Agilent 16196C

# Signal Inductor Thin Film Type

SIT Series

MERITEK

## ELECTRICAL CHARACTERISTICS (CONTINUE)

### 0201AL High Q Type

Part Number	Inductance (nH)	Tolerance ( $\pm$ %)	Min Q Factor	Min SRF (GHz)	Max DCR ( $\Omega$ )	Max IDC (mA)
SIT0201□1R3ALQ	1.3	B,C,S	14 / 500MHz	8	0.15	600
SIT0201□1R4ALQ	1.4	B,C,S	14 / 500MHz	8	0.15	600
SIT0201□1R5ALQ	1.5	B,C,S	14 / 500MHz	8	0.15	600
SIT0201□1R6ALQ	1.6	B,C,S	14 / 500MHz	8	0.15	600
SIT0201□1R7ALQ	1.7	B,C,S	14 / 500MHz	8	0.20	500
SIT0201□1R8ALQ	1.8	B,C,S	14 / 500MHz	8	0.20	500
SIT0201□1R9ALQ	1.9	B,C,S	14 / 500MHz	8	0.20	500
SIT0201□2R0ALQ	2.0	B,C,S	14 / 500MHz	8	0.20	500
SIT0201□2R1ALQ	2.1	B,C,S	14 / 500MHz	7.5	0.20	500
SIT0201□2R2ALQ	2.2	B,C,S	14 / 500MHz	7.5	0.20	500
SIT0201□2R3ALQ	2.3	B,C,S	14 / 500MHz	7.5	0.20	500
SIT0201□2R4ALQ	2.4	B,C,S	14 / 500MHz	7.5	0.25	450
SIT0201□2R5ALQ	2.5	B,C,S	14 / 500MHz	7.5	0.25	450
SIT0201□2R6ALQ	2.6	B,C,S	14 / 500MHz	7.5	0.25	450
SIT0201□2R7ALQ	2.7	B,C,S	14 / 500MHz	7.5	0.25	450
SIT0201□2R8ALQ	2.8	B,C,S	14 / 500MHz	7.5	0.25	450
SIT0201□2R9ALQ	2.9	B,C,S	14 / 500MHz	7.5	0.25	450
SIT0201□3R0ALQ	3.0	B,C,S	14 / 500MHz	7.5	0.30	400
SIT0201□3R1ALQ	3.1	B,C,S	14 / 500MHz	7	0.30	400
SIT0201□3R2ALQ	3.2	B,C,S	14 / 500MHz	7	0.30	400
SIT0201□3R3ALQ	3.3	B,C,S	14 / 500MHz	7	0.30	400
SIT0201□3R4ALQ	3.4	B,C,S	14 / 500MHz	7	0.40	350
SIT0201□3R5ALQ	3.5	B,C,S	14 / 500MHz	7	0.40	350
SIT0201□3R6ALQ	3.6	B,C,S	14 / 500MHz	7	0.40	350
SIT0201□3R7ALQ	3.7	B,C,S	14 / 500MHz	7	0.40	350
SIT0201□3R8ALQ	3.8	B,C,S	14 / 500MHz	6.5	0.40	350
SIT0201□3R9ALQ	3.9	B,C,S	14 / 500MHz	6.5	0.40	350
SIT0201□4R0ALQ	4.0	B,C,S	14 / 500MHz	6.5	0.40	350
SIT0201□4R4ALQ	4.4	B,C,S	14 / 500MHz	6.5	0.50	300
SIT0201□4R7ALQ	4.7	B,C,S	14 / 500MHz	6	0.50	300
SIT0201□4R9ALQ	4.9	B,C,S	14 / 500MHz	6	0.60	300
SIT0201□5R6ALQ	5.6	G,J	14 / 500MHz	6	0.60	250
SIT0201□6R1ALQ	6.1	G,J	14 / 500MHz	5.5	0.70	250
SIT0201□6R8ALQ	6.8	G,J	14 / 500MHz	5	0.75	250
SIT0201□7R4ALQ	7.4	G,J	14 / 500MHz	5	0.80	200
SIT0201□8R2ALQ	8.2	G,J	14 / 500MHz	4.5	0.90	200
SIT0201□9R1ALQ	9.1	G,J	14 / 500MHz	4	1.05	175
SIT0201□9R2ALQ	9.2	G,J	14 / 500MHz	4	1.15	150
SIT0201□100ALQ	10	G,J	14 / 500MHz	3.5	1.30	150

Notes:

- (Tolerance: B:  $\pm 0.1$ nH, C:  $\pm 0.2$ nH, S:  $\pm 0.3$ nH, G:  $\pm 2\%$ , J:  $\pm 5\%$ )
- Operating Temperature: -40~+85°C
- Test Equipment: HP4287A+Agilent 16196C

# Signal Inductor Thin Film Type

SIT Series

MERITEK

## ELECTRICAL CHARACTERISTIC

### 0402AL Standard Type

Part Number	Inductance (nH)	Tolerance (± %)	Min Q Factor	Min SRF (GHz)	Max DCR (Ω)	Max IDC (mA)
SIT0402□0R2AL	0.2	B,C,S	13 / 500MHz	14	0.10	800
SIT0402□0R3AL	0.3	B,C,S	13 / 500MHz	14	0.10	800
SIT0402□0R4AL	0.4	B,C,S	13 / 500MHz	14	0.10	800
SIT0402□0R5AL	0.5	B,C,S	13 / 500MHz	14	0.15	700
SIT0402□0R6AL	0.6	B,C,S	13 / 500MHz	14	0.15	700
SIT0402□0R8AL	0.8	B,C,S	13 / 500MHz	14	0.15	700
SIT0402□0R9AL	0.9	B,C,S	13 / 500MHz	14	0.15	700
SIT0402□1R0AL	1.0	B,C,S	13 / 500MHz	12	0.15	700
SIT0402□1R1AL	1.1	B,C,S	13 / 500MHz	12	0.15	700
SIT0402□1R2AL	1.2	B,C,S	13 / 500MHz	12	0.15	700
SIT0402□1R3AL	1.3	B,C,S	13 / 500MHz	10	0.25	700
SIT0402□1R4AL	1.4	B,C,S	13 / 500MHz	10	0.25	700
SIT0402□1R5AL	1.5	B,C,S	13 / 500MHz	10	0.25	700
SIT0402□1R6AL	1.6	B,C,S	13 / 500MHz	10	0.25	560
SIT0402□1R7AL	1.7	B,C,S	13 / 500MHz	10	0.25	560
SIT0402□1R8AL	1.8	B,C,S	13 / 500MHz	10	0.25	560
SIT0402□1R9AL	1.9	B,C,S	13 / 500MHz	8	0.35	560
SIT0402□2R0AL	2.0	B,C,S	13 / 500MHz	8	0.35	560
SIT0402□2R1AL	2.1	B,C,S	13 / 500MHz	8	0.35	440
SIT0402□2R2AL	2.2	B,C,S	13 / 500MHz	8	0.35	440
SIT0402□2R3AL	2.3	B,C,S	13 / 500MHz	8	0.35	440
SIT0402□2R4AL	2.4	B,C,S	13 / 500MHz	8	0.35	440
SIT0402□2R5AL	2.5	B,C,S	13 / 500MHz	8	0.35	440
SIT0402□2R6AL	2.6	B,C,S	13 / 500MHz	8	0.35	440
SIT0402□2R7AL	2.7	B,C,S	13 / 500MHz	8	0.35	440
SIT0402□2R8AL	2.8	B,C,S	13 / 500MHz	6	0.45	380
SIT0402□2R9AL	2.9	B,C,S	13 / 500MHz	6	0.45	380
SIT0402□3R0AL	3.0	B,C,S	13 / 500MHz	6	0.45	380
SIT0402□3R1AL	3.1	B,C,S	13 / 500MHz	6	0.45	380
SIT0402□3R2AL	3.2	B,C,S	13 / 500MHz	6	0.45	380
SIT0402□3R3AL	3.3	B,C,S	13 / 500MHz	6	0.45	380
SIT0402□3R4AL	3.4	B,C,S	13 / 500MHz	6	0.55	380
SIT0402□3R5AL	3.5	B,C,S	13 / 500MHz	6	0.55	380
SIT0402□3R6AL	3.6	B,C,S	13 / 500MHz	6	0.55	380
SIT0402□3R7AL	3.7	B,C,S	13 / 500MHz	6	0.55	340
SIT0402□3R8AL	3.8	B,C,S	13 / 500MHz	6	0.55	340
SIT0402□3R9AL	3.9	B,C,S	13 / 500MHz	6	0.55	340
SIT0402□4R3AL	4.3	B,C,S	13 / 500MHz	6	0.65	320
SIT0402□4R7AL	4.7	B,C,S	13 / 500MHz	6	0.65	320

Notes:

- (Tolerance: B: ±0.1nH, C: ±0.2nH, S: ±0.3nH)
- Operating Temperature: -40~+85°C
- Test Equipment: HP4287A+Agilent 16196C

# Signal Inductor Thin Film Type

SIT Series

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## ELECTRICAL CHARACTERISTIC (CONTINUE)

### 0402AL Standard Type

Part Number	Inductance (nH)	Tolerance (± %)	Min Q Factor	Min SRF (GHz)	Max DCR (Ω)	Max IDC (mA)
SIT0402□5R4AL	5.4	B,C,S	13 / 500MHz	6	0.85	280
SIT0402□5R6AL	5.6	B,C,S	13 / 500MHz	6	0.85	280
SIT0402□5R9AL	5.9	B,C,S	13 / 500MHz	6	0.85	280
SIT0402□6R5AL	6.5	B,C,S	13 / 500MHz	6	1.05	260
SIT0402□6R8AL	6.8	B,C,S	13 / 500MHz	6	1.05	260
SIT0402□7R2AL	7.2	B,C,S	13 / 500MHz	6	1.05	260
SIT0402□8R0AL	8.0	B,C,S	13 / 500MHz	5.5	1.25	220
SIT0402□8R1AL	8.1	B,C,S	13 / 500MHz	5.5	1.25	220
SIT0402□8R2AL	8.2	B,C,S	13 / 500MHz	5.5	1.25	220
SIT0402□9R1AL	9.1	B,C,S	13 / 500MHz	5.5	1.25	220
SIT0402□100AL	10	F,G,H,J	13 / 500MHz	4.5	1.35	200
SIT0402□10R8AL	10.8	F,G,H,J	13 / 500MHz	4.5	1.35	200
SIT0402□120AL	12	F,G,H,J	13 / 500MHz	3.7	1.55	180
SIT0402□13R8AL	13.8	F,G,H,J	13 / 500MHz	3.7	1.75	180
SIT0402□150AL	15	F,G,H,J	13 / 500MHz	3.3	1.75	130
SIT0402□170AL	17	F,G,H,J	13 / 500MHz	3.1	1.95	100
SIT0402□180AL	18	F,G,H,J	13 / 500MHz	3.1	2.15	100
SIT0402□20R8AL	20.8	F,G,H,J	13 / 500MHz	2.8	2.55	90
SIT0402□220AL	22	F,G,H,J	13 / 500MHz	2.8	2.65	90
SIT0402□270AL	27	F,G,H,J	13 / 500MHz	2.5	3.25	75
SIT0402□330AL	33	J	13 / 500MHz	2.5	4.50	75

Notes:

- (Tolerance: B: ±0.1nH, C: ±0.2nH, S: ±0.3nH, F: ±1%, G: ±2%, H: ±3%, J: ±5%)
- Operating Temperature: -40~+85°C
- Test Equipment: HP4287A+Agilent 16196C

## ELECTRICAL CHARACTERISTIC

### 0402ALC High Q Type

Part Number	Inductance (nH)	Tolerance (± %)	Min Q Factor	Min SRF (GHz)	Max DCR (Ω)	Max IDC (mA)
SIT0402□0R2ALC	0.2	B,C,S	16 / 500MHz	14	0.10	1000
SIT0402□0R3ALC	0.3	B,C,S	16 / 500MHz	14	0.10	1000
SIT0402□0R4ALC	0.4	B,C,S	16 / 500MHz	14	0.10	1000
SIT0402□0R5ALC	0.5	B,C,S	16 / 500MHz	14	0.12	850
SIT0402□0R6ALC	0.6	B,C,S	16 / 500MHz	14	0.12	850
SIT0402□0R7ALC	0.7	B,C,S	16 / 500MHz	14	0.12	850
SIT0402□0R8ALC	0.8	B,C,S	16 / 500MHz	14	0.12	850
SIT0402□0R9ALC	0.9	B,C,S	16 / 500MHz	14	0.12	850
SIT0402□1R0ALC	1.0	B,C,S	16 / 500MHz	12	0.12	850
SIT0402□1R1ALC	1.1	B,C,S	16 / 500MHz	12	0.12	850
SIT0402□1R2ALC	1.2	B,C,S	16 / 500MHz	12	0.12	850

Notes:

- (Tolerance: B: ±0.1nH, C: ±0.2nH, S: ±0.3nH)
- Operating Temperature: -40~+85°C
- Test Equipment: HP4287A+Agilent 16196C

# Signal Inductor Thin Film Type

SIT Series

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## ELECTRICAL CHARACTERISTIC (CONTINUE)

### 0402ALC High Q Type

Part Number	Inductance (nH)	Tolerance (± %)	Min Q Factor	Min SRF (GHz)	Max DCR (Ω)	Max IDC (mA)
SIT0402□1R3ALC	1.3	B,C,S	16 / 500MHz	10	0.20	850
SIT0402□1R4ALC	1.4	B,C,S	16 / 500MHz	10	0.20	850
SIT0402□1R5ALC	1.5	B,C,S	16 / 500MHz	10	0.20	850
SIT0402□1R6ALC	1.6	B,C,S	16 / 500MHz	10	0.20	675
SIT0402□1R7ALC	1.7	B,C,S	16 / 500MHz	10	0.20	675
SIT0402□1R8ALC	1.8	B,C,S	16 / 500MHz	10	0.20	675
SIT0402□1R9ALC	1.9	B,C,S	16 / 500MHz	8	0.28	675
SIT0402□2R0ALC	2.0	B,C,S	16 / 500MHz	8	0.28	675
SIT0402□2R1ALC	2.1	B,C,S	16 / 500MHz	8	0.28	530
SIT0402□2R2ALC	2.2	B,C,S	16 / 500MHz	8	0.28	530
SIT0402□2R3ALC	2.3	B,C,S	16 / 500MHz	8	0.28	530
SIT0402□2R4ALC	2.4	B,C,S	16 / 500MHz	8	0.28	530
SIT0402□2R5ALC	2.5	B,C,S	16 / 500MHz	8	0.28	530
SIT0402□2R6ALC	2.6	B,C,S	16 / 500MHz	8	0.28	530
SIT0402□2R7ALC	2.7	B,C,S	16 / 500MHz	8	0.28	530
SIT0402□2R8ALC	2.8	B,C,S	16 / 500MHz	6	0.35	460
SIT0402□2R9ALC	2.9	B,C,S	16 / 500MHz	6	0.35	460
SIT0402□3R0ALC	3.0	B,C,S	16 / 500MHz	6	0.35	460
SIT0402□3R1ALC	3.1	B,C,S	16 / 500MHz	6	0.35	460
SIT0402□3R2ALC	3.2	B,C,S	16 / 500MHz	6	0.35	460
SIT0402□3R3ALC	3.3	B,C,S	16 / 500MHz	6	0.35	460
SIT0402□3R4ALC	3.4	B,C,S	16 / 500MHz	6	0.45	460
SIT0402□3R5ALC	3.5	B,C,S	16 / 500MHz	6	0.45	460
SIT0402□3R6ALC	3.6	B,C,S	16 / 500MHz	6	0.45	460
SIT0402□3R7ALC	3.7	B,C,S	16 / 500MHz	6	0.45	410
SIT0402□3R8ALC	3.8	B,C,S	16 / 500MHz	6	0.45	410
SIT0402□3R9ALC	3.9	B,C,S	16 / 500MHz	6	0.45	410
SIT0402□4R3ALC	4.3	B,C,S	16 / 500MHz	6	0.55	350
SIT0402□4R7ALC	4.7	B,C,S	16 / 500MHz	6	0.55	350
SIT0402□5R4ALC	5.4	B,C,S	16 / 500MHz	6	0.70	310
SIT0402□5R6ALC	5.6	B,C,S	16 / 500MHz	6	0.70	310
SIT0402□5R9ALC	5.9	B,C,S	16 / 500MHz	6	0.70	310
SIT0402□6R5ALC	6.5	B,C,S	16 / 500MHz	6	0.90	290
SIT0402□6R8ALC	6.8	B,C,S	16 / 500MHz	6	0.90	290
SIT0402□7R2ALC	7.2	B,C,S	16 / 500MHz	6	0.90	290
SIT0402□8R0ALC	8.0	B,C,S	16 / 500MHz	5.5	1.00	245
SIT0402□8R1ALC	8.1	B,C,S	16 / 500MHz	5.5	1.00	245
SIT0402□8R2ALC	8.2	B,C,S	16 / 500MHz	5.5	1.00	245
SIT0402□9R1ALC	9.1	B,C,S	16 / 500MHz	5.5	1.00	245
SIT0402□100ALC	10	F,G,H,J	16 / 500MHz	4.5	1.10	220

Notes:

- (Tolerance: B: ±0.1nH, C: ±0.2nH, S: ±0.3nH, F: ±1%, G: ±2%, H: ±3%, J: ±5%)
- Operating Temperature: -40~+85°C
- Test Equipment: HP4287A+Agilent 16196C



# Signal Inductor Thin Film Type

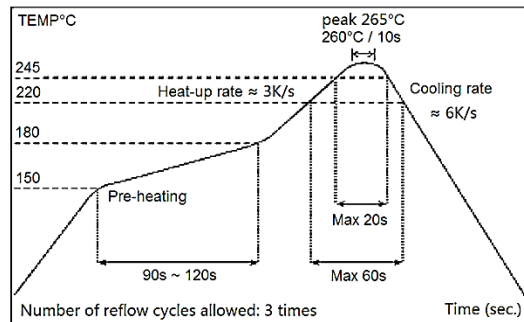
SIT Series

MERITEK

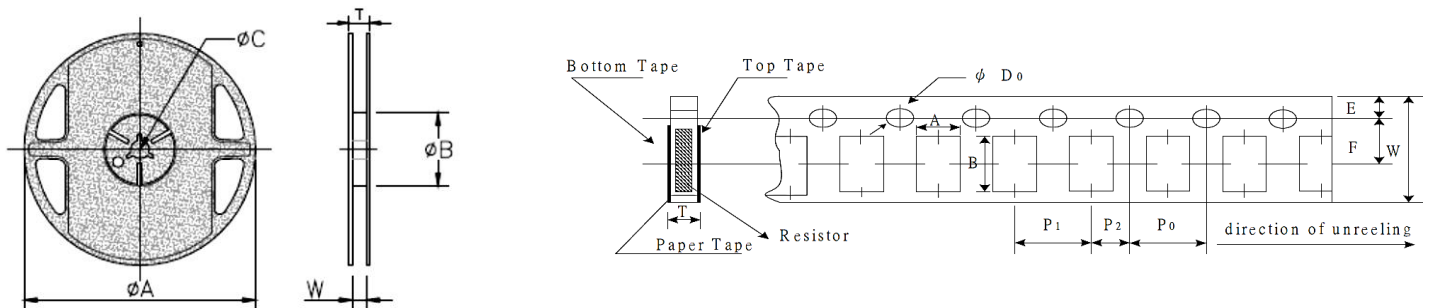
## RELIABILITY TEST CONDITION AND REQUIREMENT

Item	Standard	Test Conditions / Equipment	Requirement
Inductance	-	0201: HP4287+Agilent 16196C 0402: HP4287+Agilent 16196B	Within the specification
Insulation Resistance	MIL-STD-202 Method 302	Apply 100V <sub>DC</sub> for 1 minute	>1000MΩ
Damp Heat with Load	MIL-STD-202 Method 103B	40±2°C, 90~95% R.H. Max. working voltage for 1000 hrs with 1.5 hrs "ON" and 0.5 hrs "OFF"	ΔL ≤ 10%
Bending Strength	JIS-C-5201-1 6.14	Bending Amplitude 3mm for 10 seconds	Within the specification
Solderability	MIL-STD-202 Method 208H	245±5°C for 3 seconds	95% min. coverage
Resistance to Soldering Heat	MIL-STD-202 Method 210E	260±5°C for 10 seconds	ΔL ≤ 10%
Dielectric Withstand Voltage	MIL-STD-202 Method 301	Apply 100VA (rms) for 1 minute	>100V
High Temperature Exposure	JIS-C-5201-1 7.2	85±2°C, 1000 +48/-0 hours	ΔL ≤ 10%
Low Temperature Storage	JIS-C-5201-1 7.1	-40±3°C, 1000 +48/-0 hours	ΔL ≤ 10%
Temperature Cycle	JIS-C-5201-1 7.1	-40/RT/85/RT, 10 cycles	ΔL ≤ 10%

## REFLOW SOLDERING



## PACKAGING SPECIFICATION



Size	Reel Dimension (mm)						Tape Dimensions (mm)										
	φA	φB	φC	W	T	Quantity	A	B	W	E	F	P <sub>0</sub>	P <sub>1</sub>	P <sub>2</sub>	D <sub>0</sub>	T	
0201	178 ±1.0	60.0 ±1.0	13.5 ±0.7	9.5 ±1.0	11.5 ±1.0	10,000	0.40 ±0.05	0.75 ±0.05	8.00 ±0.10	1.75 ±0.05	3.50 ±0.05	4.00 ±0.10	2.00 ±0.05	2.00 ±0.05	1.55 ±0.03	0.42 ±0.02	
0402	178 ±1.0	60.0 ±1.0	13.5 ±0.7	9.5 ±1.0	11.5 ±1.0	10,000	0.70 ±0.05	1.16 ±0.05	8.00 ±0.10	1.75 ±0.05	3.50 ±0.05	4.00 ±0.10	2.00 ±0.05	2.00 ±0.05	1.55 ±0.05	0.40 ±0.03	