

ECN/PCN No.: M1196

For Manufacturer			
Product Description: Ceramic Wire Wound Inductors	Abracon Part Number / Part Series: AISC-0402 series	<input type="checkbox"/> Documentation only <input checked="" type="checkbox"/> ECN <input type="checkbox"/> EOL	<input checked="" type="checkbox"/> Series <input type="checkbox"/> Part Number
Affected Revision: J	New Revision: K	Application:	<input type="checkbox"/> Safety <input checked="" type="checkbox"/> Non-Safety

Prior to Change:

1.0 Key Electrical Specifications

Part			Q	L/Q Test	SRF	RDC	IDC
Number	L (nH)	Tolerance	Min	Freq	Min	Max	Max
Inductance Code				(MHz)	(MHz)	(Ω)	(mA)
1N0	1	J, K, S	13	250	12700	0.045	1360
1N2	1.2	J, K, S	13	250	12000	0.060	1300
1N8	1.8	J, K, S	13	250	11500	0.070	1040
1N9	1.9	J, K, S	16	250	11300	0.070	1040
2N0	2	J, K, S	16	250	11100	0.070	1040
2N2	2.2	J, K, S	18	250	10800	0.070	960
2N4	2.4	J, K, S	18	250	10500	0.070	960
2N7	2.7	J, K, S	13	250	10400	0.120	640
3N0	3	J, K, S	20	250	7000	0.066	840
3N3	3.3	G, J, K, S	20	250	7000	0.066	840
3N6	3.6	G, J, K, S	20	250	6800	0.066	840
3N9	3.9	G, J, K, S	20	250	6000	0.066	840
4N3	4.3	G, J, K, S	20	250	6000	0.091	700
4N7	4.7	G, J, K, S	20	250	4775	0.083	800
5N1	5.1	G, J, K, S	23	250	5800	0.083	800
5N6	5.6	G, J, K, S	23	250	5800	0.083	760
6N2	6.2	G, J, K, S	23	250	5800	0.083	760
6N8	6.8	G, J, K	20	250	5800	0.083	680
7N3	7.3	G, J, K	25	250	6000	0.130	570
7N5	7.5	G, J, K	25	250	5800	0.100	680
8N2	8.2	G, J, K	25	250	4400	0.100	680
8N7	8.7	G, J, K	25	250	4200	0.100	680
9N0	9	G, J, K	25	250	4160	0.100	680
9N5	9.5	G, J, K	21	250	4000	0.162	600
10N	10	G, J, K	21	250	3900	0.200	480
11N	11	G, J, K	26	250	3680	0.120	640
12N	12	G, J, K	26	250	3600	0.120	640
13N	13	G, J, K	26	250	3450	0.185	440
15N	15	G, J, K	26	250	3280	0.170	560
16N	16	G, J, K	26	250	3100	0.220	560
18N	18	G, J, K	26	250	3100	0.230	480
19N	19	G, J, K	26	250	3040	0.200	480
20N	20	G, J, K	26	250	3000	0.250	420
22N	22	G, J, K	26	250	2800	0.250	400
23N	23	G, J, K	26	250	2720	0.250	400
24N	24	G, J, K	26	250	2700	0.300	400

27N	27	G, J, K	26	250	2480	0.300	400
30N	30	G, J, K	25	250	2350	0.300	400
33N	33	G, J, K	25	250	2350	0.350	400
36N	36	G, J, K	26	250	2320	0.400	320
39N	39	G, J, K	25	250	2100	0.500	200
40N	40	G, J, K	26	250	2240	0.550	200
43N	43	G, J, K	25	250	2030	0.700	150
47N	47	G, J, K	20	250	2100	0.750	150
51N	51	G, J, K	25	250	1750	0.820	100
56N	56	G, J, K	25	250	1760	0.970	100
62N	62	G, J, K	25	250	1620	0.970	100
68N	68	G, J, K	25	250	1620	1.120	100
72N	72	G, J, K	25	250	1620	1.550	100
82N	82	J, K	25	250	1620	1.550	100
R10	100	J, K	25	250	1620	2.600	100
R12	120	J, K	25	250	1520	2.700	90
R15	150	J, K	25	250	1200	2.900	80

1.1 Test Conditions:

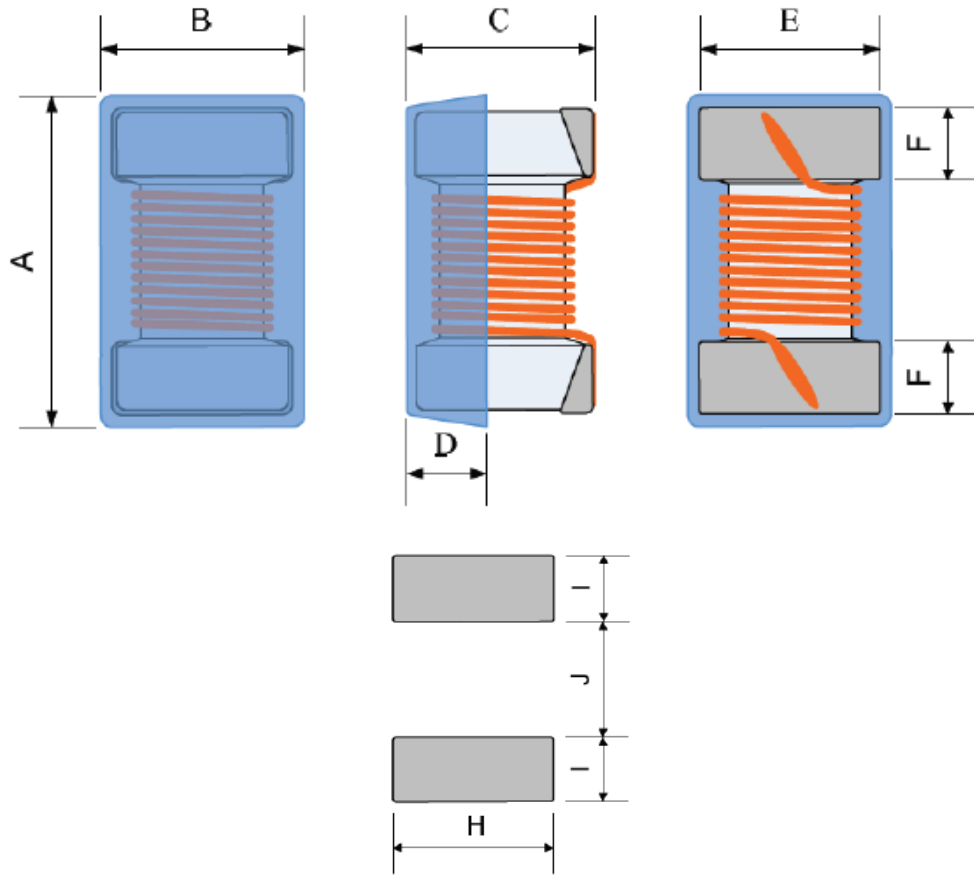
Inductance (L): Agilent4287A+Agilent16197A or equivalent, 50mV

Direct Current Resistance (DCR): HIOKI 3540 or equivalent

Temperature rise current (Ir): Electric Power, Electric current meter, Thermometer

Irms: Based on temperature rise (ΔT : 20 °C TYP.)

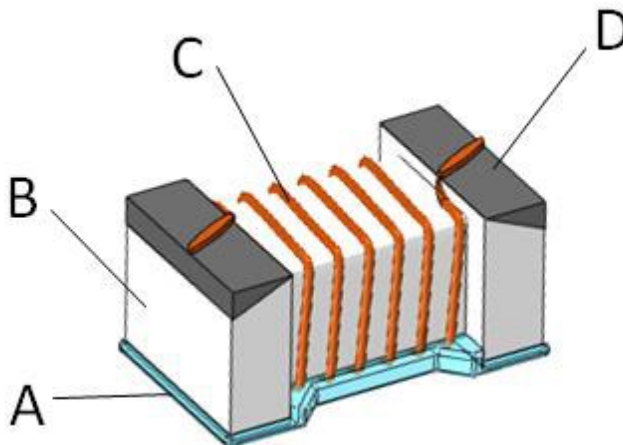
5.0 Mechanical Dimensions



Recommended Land Pattern

A Max.	B Max.	C Max.	D REF.	E REF.	F REF.	H REF.	I REF.	J REF.
1.19	0.64	0.66	0.20	0.50	0.20	0.65	0.35	0.50

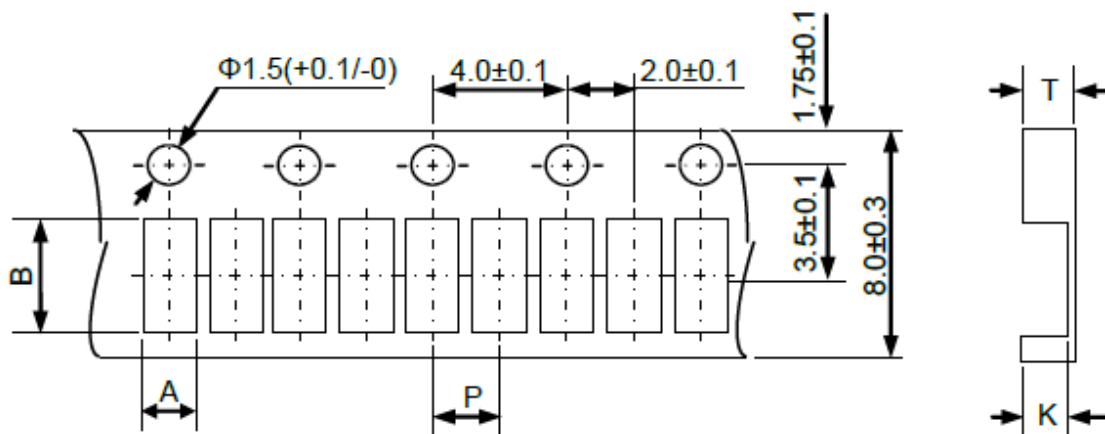
1.2 Materials



No.	Components	Material
A	Coating	Ultraviolet epoxy resin
B	Core	Ceramic
C	Wire	Polyurethane system enameled copper wire
D	Electrodes	Mo-Mn with Ni and Sn plating

7.0 Packing

T= tape and reel (10,000pcs/reel)



Dimension: mm

A	B	P	K	T
0.75±0.1	1.32±0.1	2.0±0.05	0.75±0.05	0.8±0.1

After Change:

2.0 Key Electrical Specifications

Part Number	L (nH)	Tolerance	Q Min	L/Q Test Freq (MHz)	SRF Min (MHz)	RDC Max (Ω)	IDC Max (mA)
1N0	1.0	S	13	250	12700	0.045	1360
1N2	1.2	K, S	13	250	12000	0.060	1300
1N8	1.8	J, K, S	13	250	11500	0.070	1040
1N9	1.9	J, K, S	16	250	11300	0.070	1040
2N0	2.0	J, K, S	16	250	11100	0.070	1040
2N2	2.2	J, K, S	18	250	10800	0.070	960
2N4	2.4	J, K, S	18	250	10500	0.070	960
2N7	2.7	K, S	13	250	10400	0.120	640
3N0	3.0	J, K, S	20	250	7000	0.066	840
3N3	3.3	G, J, K, S	20	250	7000	0.066	840
3N6	3.6	G, J, K, S	20	250	6800	0.066	840
3N9	3.9	G, J, K, S	20	250	6000	0.066	840
4N3	4.3	G, J, K, S	20	250	6000	0.091	700
4N7	4.7	G, J, K, S	20	250	4775	0.083	800
5N1	5.1	G, J, K, S	23	250	5800	0.083	800
5N6	5.6	G, J, K, S	23	250	5800	0.083	760
6N2	6.2	G, J, K, S	23	250	5800	0.083	760
6N8	6.8	G, J, K	20	250	5800	0.083	680
7N3	7.3	G, J, K	25	250	6000	0.130	570
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18N	18	G, J, K	26	250	3100	0.230	480
19N	19	G, J, K	26	250	3040	0.200	480
20N	20	G, J, K	26	250	3000	0.250	420
22N	22	G, J, K	26	250	2800	0.250	400

Key Electrical Specifications (Con'd)

Part Number	L (nH)	Tolerance	Q Min	L/Q Test Freq (MHz)	SRF (MHz)	RDC Max (Ω)	IDC Max (mA)
23N	23	G, J, K	26	250	2720	0.250	400
24N	24	G, J, K	26	250	2700	0.300	400
27N	27	G, J, K	26	250	2480	0.300	400
30N	30	G, J, K	25	250	2350	0.300	400
33N	33	G, J, K	25	250	2350	0.350	400
36N	36	G, J, K	26	250	2320	0.400	320
39N	39	G, J, K	25	250	2100	0.500	200
40N	40	G, J, K	26	250	2240	0.550	200
43N	43	G, J, K	25	250	2030	0.700	150
47N	47	G, J, K	20	250	2100	0.750	150
51N	51	G, J, K	25	250	1750	0.820	100
56N	56	G, J, K	25	250	1760	0.970	100
62N	62	G, J, K	25	250	1620	0.970	100
68N	68	G, J, K	25	250	1620	1.120	100
72N	72	G, J, K	25	250	1620	1.550	100
82N	82	J, K	25	250	1620	1.550	100
R10	100	J, K	25	250	1620	2.600	100
R12	120	J, K	25	250	1520	2.700	90
R15	150	J, K	25	250	1200	2.900	80

2.1 Test Conditions:

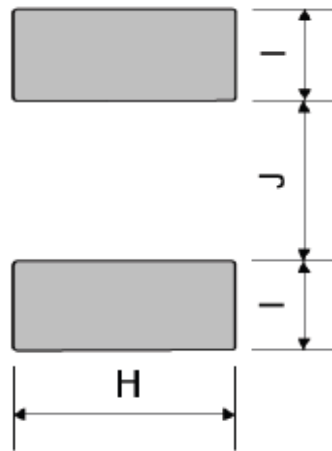
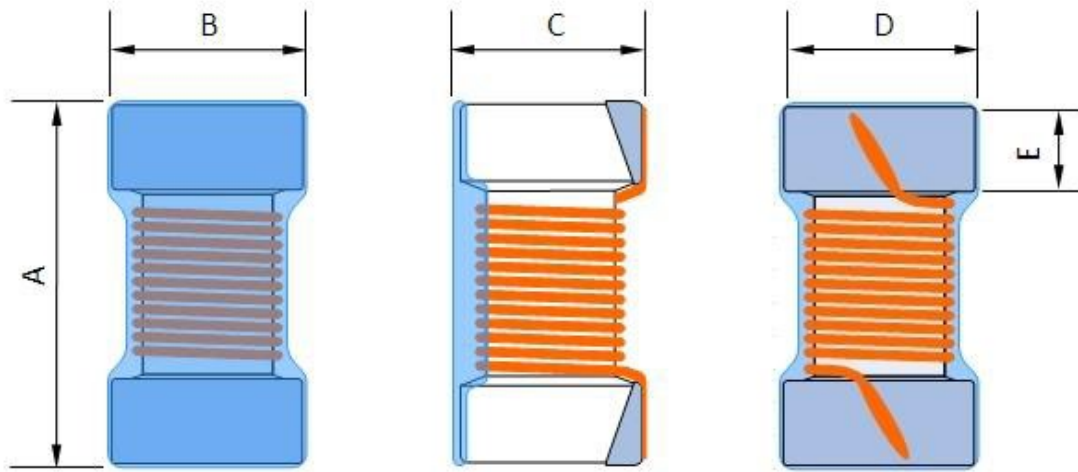
Inductance (L): Agilent4287A+Agilent16197A or equivalent, 50mV

Direct Current Resistance (DCR): HIOKI 3540 or equivalent

Temperature rise current (Ir): Electric Power, Electric current meter, Thermometer

IDC: Based on temperature rise (ΔT : 20° C TYP.)

1.0 Mechanical Dimensions

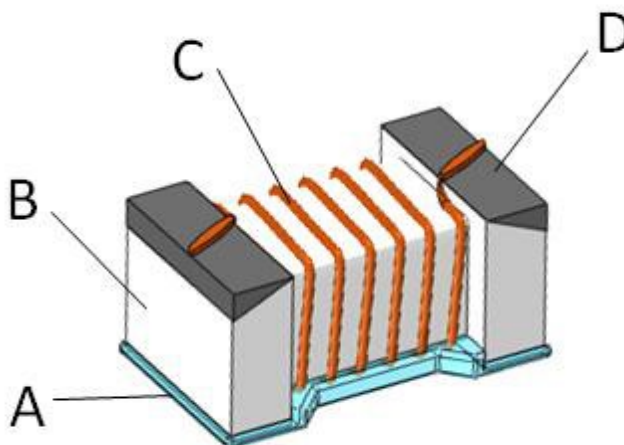


Recommended Land Pattern

A	B	C	D	E	H REF.	I REF.	J REF.
1.10±0.1	0.60±0.1	0.55±0.1	0.50±0.1	0.20±0.1	0.65	0.35	0.50

Dimension: mm

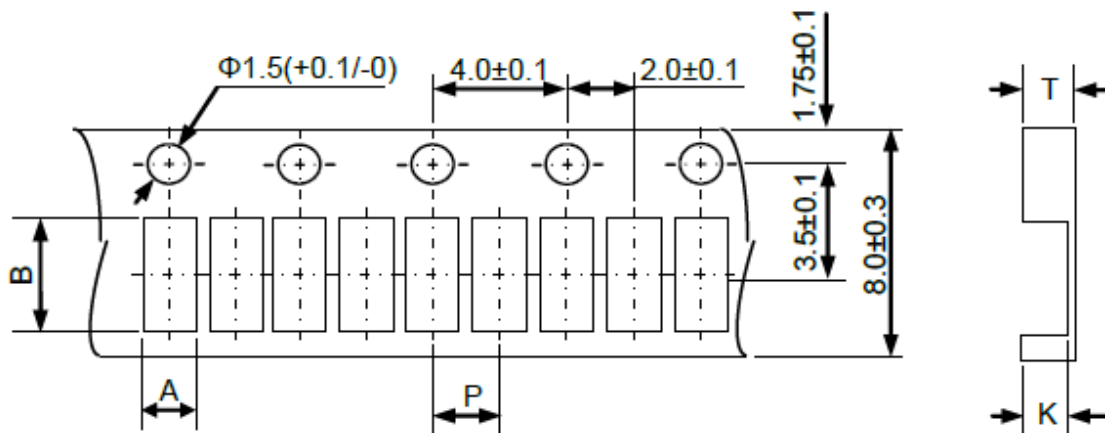
1.1 Materials



No.	Components	Material
A	Coating	Ultraviolet epoxy resin
B	Core	Ceramic
C	Wire	Polyurethane system enameled copper wire
D	Electrodes	Mo-Mn with Ni and Gold plating

7.0 Packing

T= tape and reel (10,000pcs/reel)



A	B	P	K	T
0.66±0.05	1.20±0.05	2.0±0.1	0.75±0.05	0.8±0.1

Dimension: mm

Cause/Reason for Change:

Gold plating instead of Tin plating. Update to tape dimensions.

There is a partial EOL on some part numbers. (Refer to Partial ECN-EOL #M1196 AISC-0402 Series: <https://abracon.com/downloads/ECN-PCN/Partial-ECN-EOL-M1196-AISC-0402-Series.pdf>.)

Change Plan
Effective Date:

3/3/2021

Additional Remarks:
Change Declaration:

Gold plating instead of Tin plating. Update to tape dimensions.

There is a partial EOL on some part numbers. (Refer to Partial ECN-EOL #M1196 AISC-0402 Series: <https://abracon.com/downloads/ECN-PCN/Partial-ECN-EOL-M1196-AISC-0402-Series.pdf>.)

EOL'd parts :

AISC-0402-1N0J-T

AISC-0402-1N0K-T

AISC-0402-1N2J-T

AISC-0402-2N7J-T

Issued Date:

3/3/2021

Issued By:

Ahmed Alamin

Issued Department:

Engineering

Approval:

Syed Raza
Engineering VP

Approval:

Reuben Quintanilla
Quality Director

Approval:

Ying Huang
Purchasing Director

For Abracon EOL only
Last Time Buy (if applicable):
Alternate Part Number / Part Series:
Additional Approval:
Additional Approval:
Additional Approval:
Customer Approval (If Applicable)
Qualification Status:

Approved Not accepted

Note: It is considered approved if there is no feedback from the customer 1 month after ECN/PCN is released.

Customer Part Number:
Customer Project:
Company Name:
Company Representative:
Representative Signature:
Customer Remarks: