ECN/PCN No.: M1196

For Manufacturer			
Product Description: Ceramic Wire Wound Inductors	**Abracon Part Number / Part Series:** AISC-0402 series	☐ Documentation only ☒ ECN ☐ EOL	☒ Series ☐ Part Number
Affected Revision: J	**New Revision:** K	**Application:**	☐ Safety ☒ Non-Safety

Prior to Change:

1.0 Key Electrical Specifications

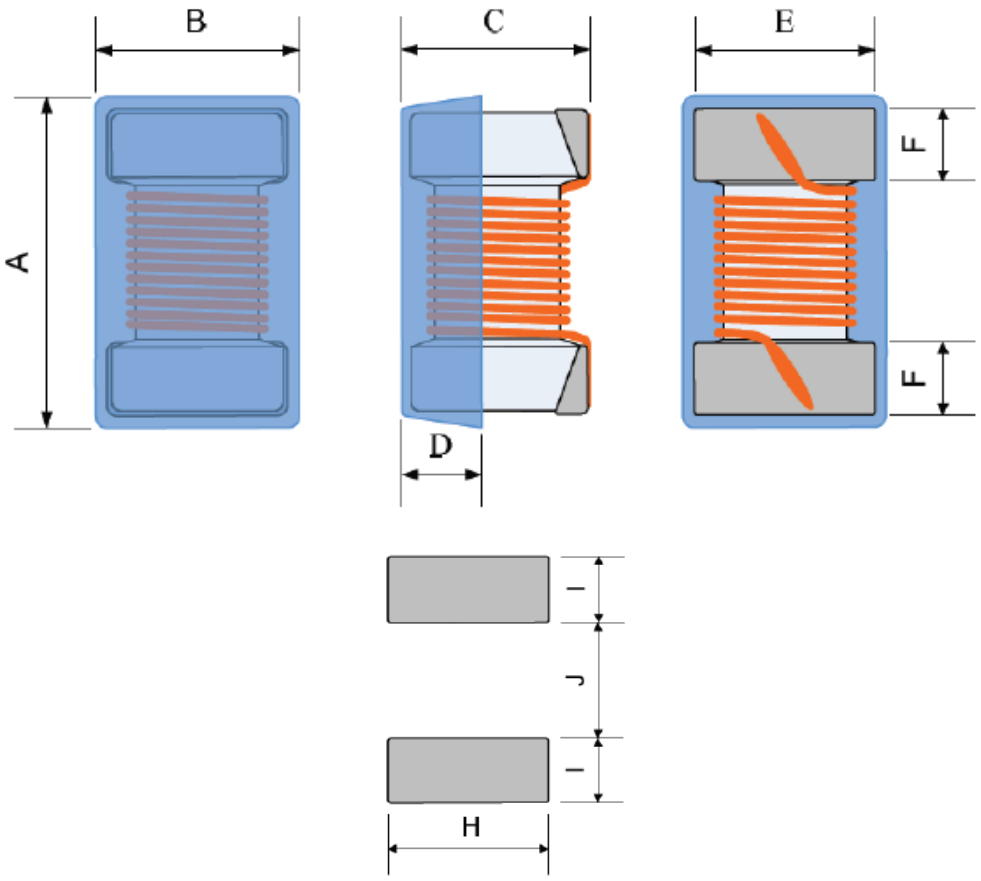
Part Number Inductance Code	L (nH)	Tolerance	Q Min	L/Q Test Freq (MHz)	SRF Min (MHz)	RDC Max (Ω)	IDC Max (mA)
1N0	1	J, K ,S	13	250	12700	0.045	1360
1N2	1.2	J, K ,S	13	250	12000	0.060	1300
1N8	1.8	J, K,S	13	250	11500	0.070	1040
1N9	1.9	J, K,S	16	250	11300	0.070	1040
2N0	2	J, K,S	16	250	11100	0.070	1040
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 (△ T : 20 ºC TYP.)

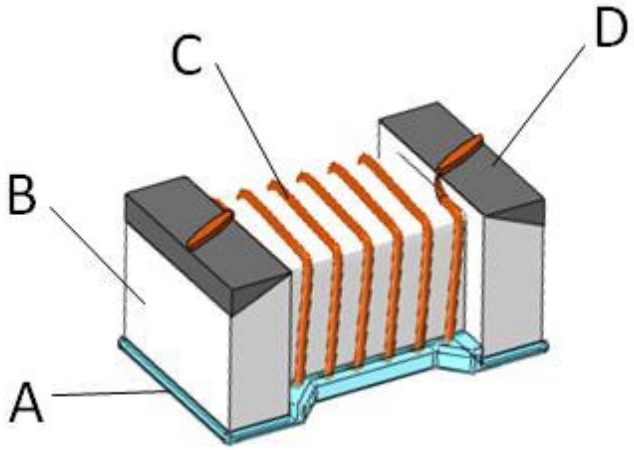
5.0 Mechanical Dimensions



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

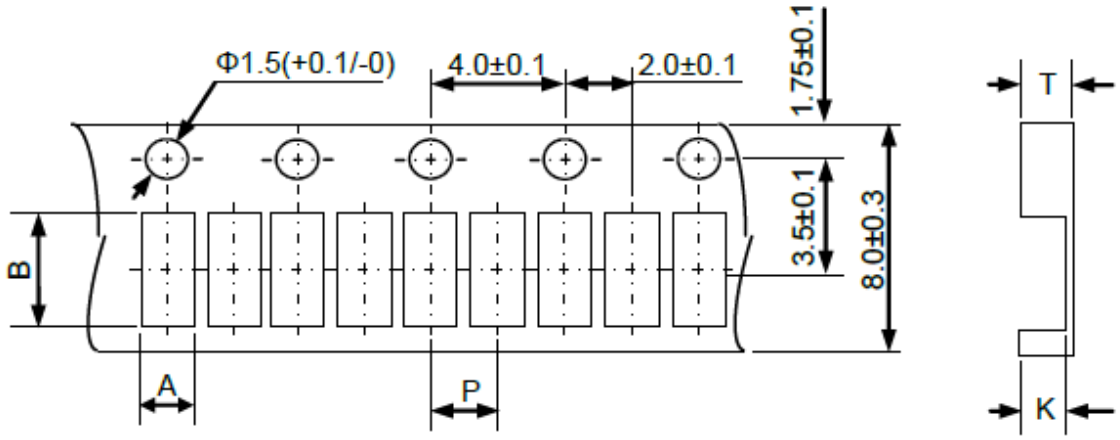
1.2 Materials



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)



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

Dimension: mm

After Change:

2.0 Key Electrical Specifications

Part Number Inductance Code	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
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	9.0	G, J, K	25	250	4160	0.100	680
9N5	9.5	G, J, K	21	250	4000	0.162	600
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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

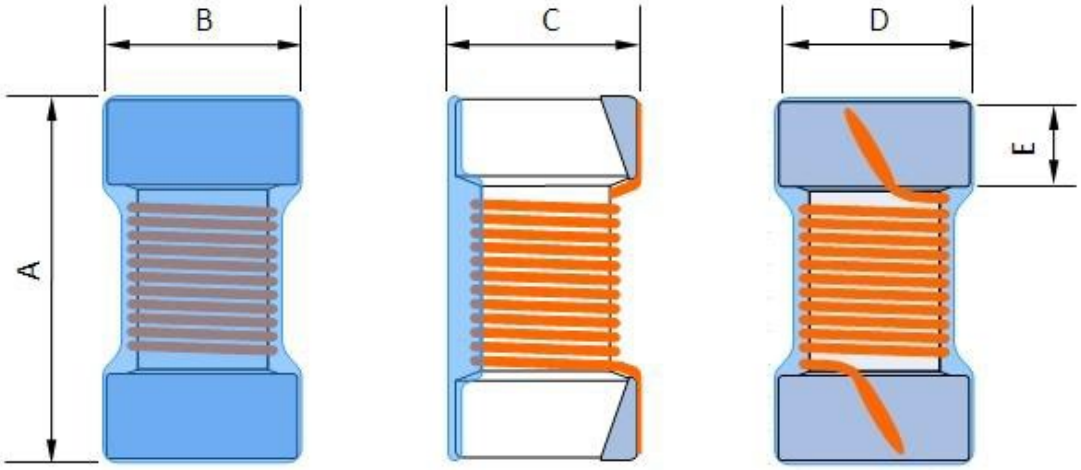
Key Electrical Specifications (Con'd)

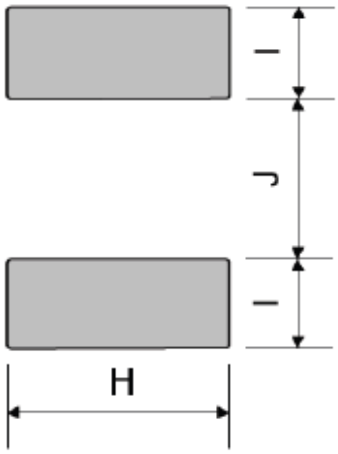
Part Number Inductance Code	L (nH)	Tolerance	Q Min	L/Q Test Freq (MHz)	SRF Min (MHz)	RDC Max (Ω)	IDC Max (mA)
23N	23	G, J, K	26	250	2720	0.250	400
24N	24	G, J, K	26	250	2700	0.300	400
27N	27	G, J, K	26	250	2480	0.300	400
30N	30	G, J, K	25	250	2350	0.300	400
33N	33	G, J, K	25	250	2350	0.350	400
36N	36	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 (△ T : 20° C TYP.)

1.0 Mechanical Dimensions



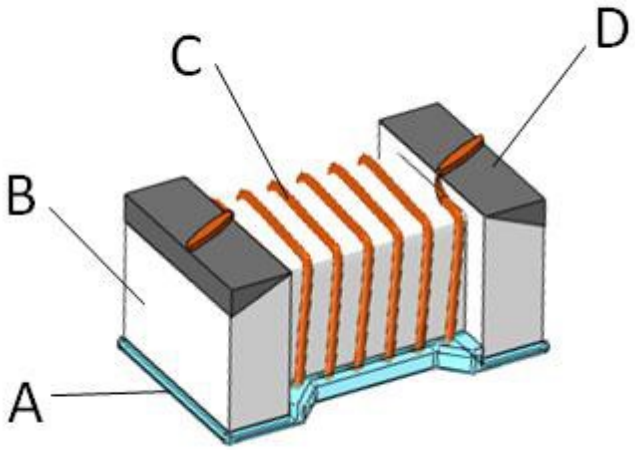


Recommended Land Pattern

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

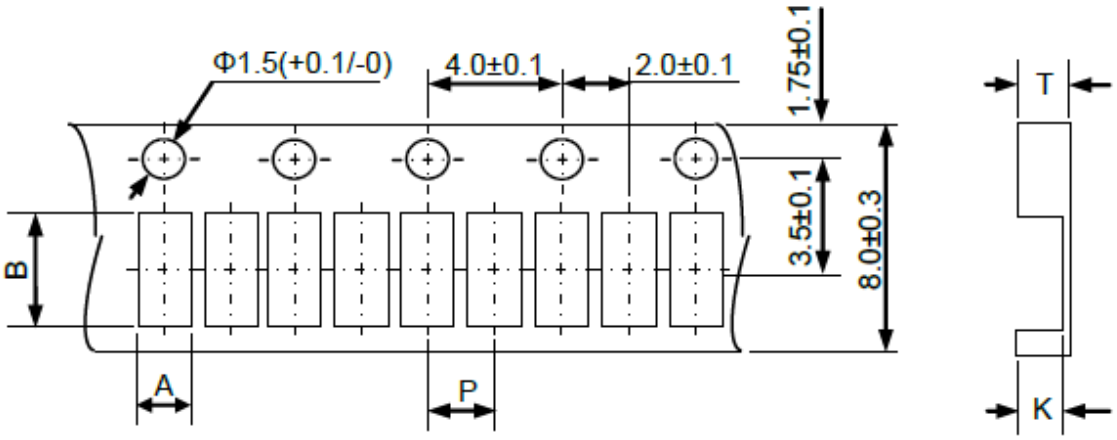
1.1 Materials



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. Change on the numbers format in the Mechanical Dimensions section from Max value to (Nominal±tolerance) . There is a partial EOL on some part numbers. (**Refer to ECN-Partial EOL M1196 AISC-0402 Series**) . https://abracon.com/downloads/ECN-PCN/Partial-ECN-EOL-M1196-AISC-0402-Series.pdf

Change Plan

Effective Date:	**Additional Remarks:**
3/3/2021	

Change Declaration: The Change does not affect fit of the devices in this series.
Gold plating instead of Tin plating. Update to tape dimensions. Change on the numbers format in the Mechanical Dimensions section from Max value to (Nominal±tolerance).
There is a partial EOL on some part numbers. (**Refer to ECN-Partial 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:	**Issued By:**	**Issued Department:**
3/3/2021	*Ahmed Alamin*	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: