ABRACON

Engineering/Process Change Notice

ECN/PCN No.: M1212

For Manufacturer			
Product Description: Radial Drum Core Power Choke	**Abracon Part Number / Part Series:** AIRD-01 Series	☐ Documentation only ☒ ECN ☐ EOL	☒ Series ☐ Part Number(s)
Affected Revision: C	**New Revision:** D	**Application:**	☐ Safety ☒ Non-Safety

Prior to Change:

1.0 Key Electrical Specifications

Part Number	Inductance	Tolerance	DCR (Max)	Saturation Current (Max)	Temperature Rise Current (Max)	Inductance Code
Units	µH	%	Ω	A	A	
Symbol	L	K, M	DCR	Isat*	Irms*	
AIRD-01-1R0	1.0	K, M	0.003	87.0	9.0	1R0K/1R0M
AIRD-01-1R2	1.2	K, M	0.003	68.0	9.0	1R2K/1R2M
AIRD-01-1R5	1.5	K, M	0.004	56.0	9.0	1R5K/1R5M
AIRD-01-1R8	1.8	K, M	0.004	56.0	9.0	1R8K/1R8M
AIRD-01-2R2	2.2	K, M	0.005	47.0	9.0	2R2K/2RKM
AIRD-01-2R7	2.7	K, M	0.005	47.0	9.0	2R7K/2RKM
AIRD-01-3R3	3.3	K, M	0.005	40.0	9.0	3R3K/3R3M
AIRD-01-3R9	3.9	K, M	0.006	36.0	9.0	3R9K/3R9M
AIRD-01-4R7	4.7	K, M	0.007	32.0	9.0	4R7K/4R7M
AIRD-01-5R6	5.6	K, M	0.007	29.0	9.0	5R6K/5R6M
AIRD-01-6R8	6.8	K, M	0.008	26.0	9.0	6R8K/6R8M
AIRD-01-8R2	8.2	K, M	0.009	24.5	9.0	8R2K/8R2M
AIRD-01-100	10	K	0.010	21.2	9.0	100K
AIRD-01-120	12	K	0.011	19.0	9.0	120K
AIRD-01-150	15	K	0.015	17.5	7.2	150K
AIRD-01-180	18	K	0.016	16.5	7.2	180K
AIRD-01-220	22	K	0.025	15.8	5.5	220K
AIRD-01-270	27	K	0.030	14.4	4.5	270K
AIRD-01-330	33	K	0.040	13.2	4.0	330K
AIRD-01-390	39	K	0.046	11.8	4.0	390K
AIRD-01-420	42	K	0.050	11.3	3.8	420K
AIRD-01-470	47	K	0.062	11.0	2.8	470K
AIRD-01-560	56	K	0.069	10.0	2.8	560K
AIRD-01-680	68	K	0.077	8.9	2.8	680K
AIRD-01-820	82	K	0.083	8.2	2.8	820K
AIRD-01-101	100	K	0.095	7.5	2.8	101K
AIRD-01-121	120	K	0.127	5.8	2.0	121K
AIRD-01-151	150	K	0.181	5.6	1.6	151K
AIRD-01-181	180	K	0.217	5.1	1.6	181K
AIRD-01-221	220	K	0.240	4.3	1.6	221K
AIRD-01-271	270	K	0.300	4.1	1.6	271K
AIRD-01-331	330	K	0.336	3.8	1.3	331K
AIRD-01-391	390	K	0.460	3.3	1.0	391K
AIRD-01-471	470	K	0.636	3.2	0.8	471K
AIRD-01-561	560	K	0.696	2.9	0.8	561K
AIRD-01-681	680	K	0.700	2.9	0.8	681K

2.1 **Test Conditions and equipments**
Test frequency: 1KHz 0.1V_{RMS}
DCR: QuadTech Milliohmmeter
Isat: 10% inductance drops from initial value
Irms: ΔT of 40°C temperature rise max

2.2 **Operating Temperature:** -25℃ ~ +85℃

2.3 **Storage Temperature:** -25℃ ~ +125℃

3.0 **Part Number Identification**

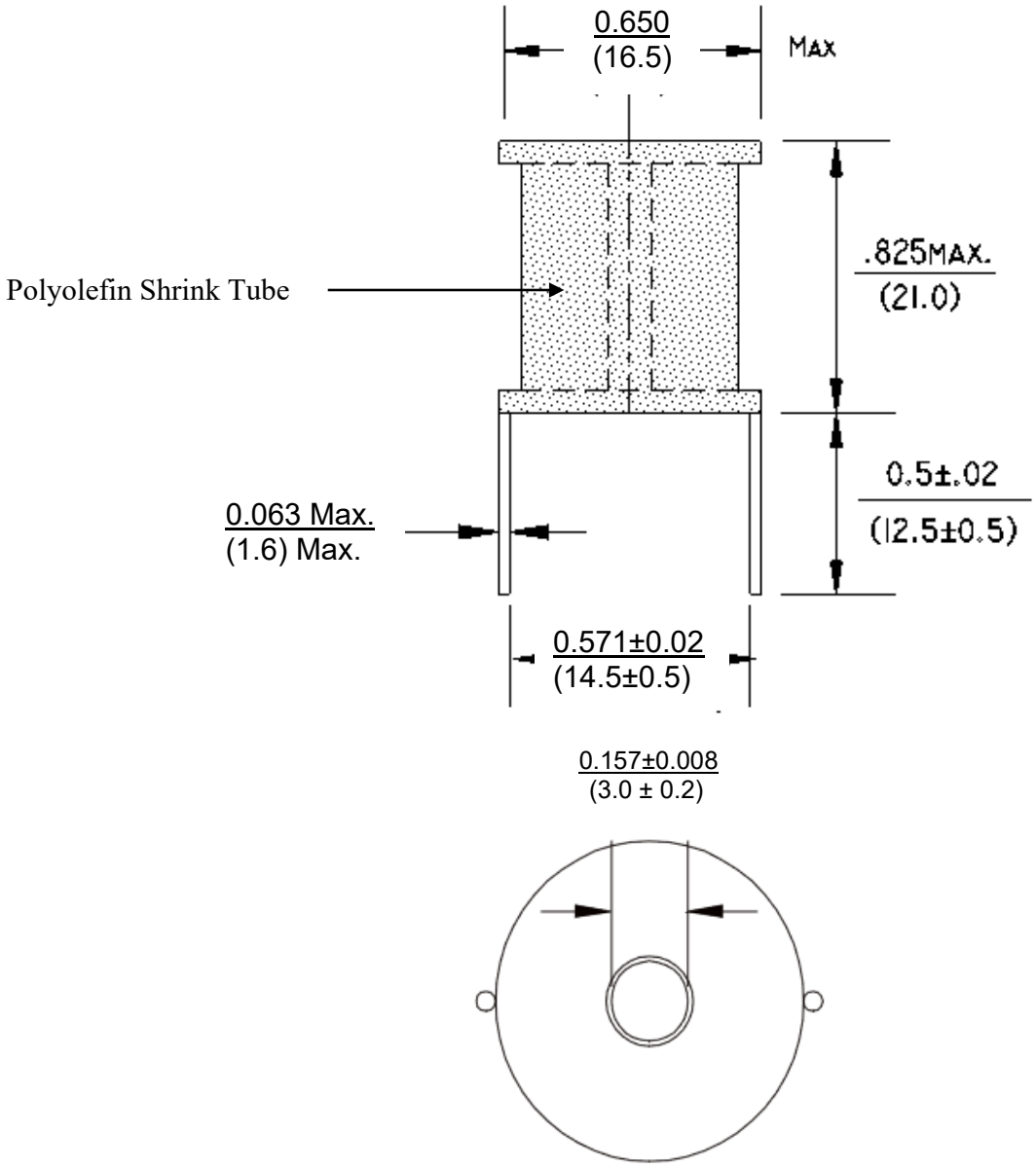
AIRD-01- [ ] [ ]

Inductance Code
Please refer to the Electrical Spec Table

Tolerance
M: ±20%*
K: ±10%*

*1.0 ~ 8.2µH: K and M
10 ~ 680µH: K only

4.0 Mechanical Dimensions



Dimension: inch (mm)

After Change:

Part Number	Inductance	Tolerance	DCR (Max)	Temperature Rise Current (Max)	Inductance Code
Units	µH	%	Ω	A	
Symbol	L	K, M, N	DCR	Irms	
AIRD-01-1R0	1.0	N	0.003	9.0	1R0N
AIRD-01-1R2	1.2	N	0.003	9.0	1R2N
AIRD-01-1R5	1.5	N	0.004	9.0	1R5N
AIRD-01-1R8	1.8	N	0.004	9.0	1R8N
AIRD-01-2R2	2.2	N	0.005	9.0	2R2N
AIRD-01-2R7	2.7	N	0.005	9.0	2R7N
AIRD-01-3R3	3.3	M	0.005	9.0	3R3M
AIRD-01-3R9	3.9	M	0.006	9.0	3R9M
AIRD-01-4R7	4.7	M	0.007	9.0	4R7M
AIRD-01-5R6	5.6	M	0.007	9.0	5R6M
AIRD-01-6R8	6.8	M	0.008	9.0	6R8M
AIRD-01-8R2	8.2	M	0.009	9.0	8R2M
AIRD-01-100	10	K	0.010	9.0	100K
AIRD-01-120	12	K	0.011	9.0	120K
AIRD-01-150	15	K	0.015	7.2	150K
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AIRD-01-471	470	K	0.636	0.8	471K
AIRD-01-561	560	K	0.696	0.8	561K
AIRD-01-681	680	K	0.700	0.8	681K

4.1 Test Conditions
Test frequency: 1KHz 0.25V_{RMS}
Irms: ΔT of 40°C temperature rise max

4.2 Operating Temperature: -40°C ~ +125°C （Including Self-heating）

4.3 Storage Temperature: -40°C ~ +125°C

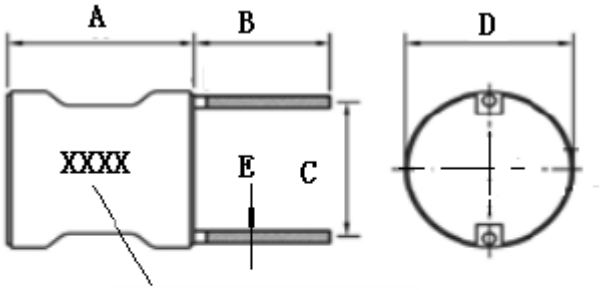
5.0 Part Number Identification

AIRD-01- [ ] [ ]

Inductance Code
Please refer to the Electrical Spec Table

Tolerance
N: ±30%
M: ±20%
K: ±10%

6.0 Mechanical Dimensions



Inductance Code
e.g. 1R0 M
8R2M
681K

A	B	C	D	E
21.0 (max)	12.5±1	14.5±1	16.5 (max)	1.6 (max)

Cause/Reason for Change:
Moving the series to a new production line, relaxed tolerance on some parts, change in operating temperature range, testing conditions, dimensions graphics.

Change Plan

Effective Date:	**Additional Remarks:**
2/5/2021	

Change Declaration:
The change does not affect form fit or function of the series. Wider operating temperature, update to the testing conditions.

Tolerance relaxed to 30% on the following parts:

AIRD-01-1R0
AIRD-01-1R2
AIRD-01-1R5
AIRD-01-1R8
AIRD-01-2R2
AIRD-01-2R7

Tolerance relaxed to 20% on the following parts:

AIRD-01-3R3
AIRD-01-3R9
AIRD-01-4R7
AIRD-01-5R6
AIRD-01-6R8
AIRD-01-8R2

Issued Date:	**Issued By:**	**Issued Department:**
2/5/2021	*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: