

AIRD-03-680K Datasheet



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DiGi Electronics Part Number	AIRD-03-680K-DG
Manufacturer	Abracon LLC
Manufacturer Product Number	AIRD-03-680K
Description	FIXED IND 68UH 9A 29 MOHM TH
Detailed Description	68 μ H Unshielded Drum Core, Wirewound Inductor 9 A 29mOhm Max Radial, Vertical Cylinder



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Purchase and inquiry

Manufacturer Product Number:

AIRD-03-680K

Series:

AIRD-03

Type:

Drum Core, Wirewound

Inductance:68 μ H**Current Rating (Amps):**

9 A

Shielding:

Unshielded

Q @ Freq:

-

Ratings:

-

Inductance Frequency - Test:

1 Hz

Package / Case:

Radial, Vertical Cylinder

Size / Dimension:

1.102" Dia (28.00mm)

Manufacturer:

Abracon LLC

Product Status:

Active

Material - Core:

Ferrite

Tolerance: \pm 10%**Current - Saturation (Isat):**

15A

DC Resistance (DCR):

29mOhm Max

Frequency - Self Resonant:

-

Operating Temperature:

-25°C ~ 85°C

Mounting Type:

Through Hole

Supplier Device Package:

-

Height - Seated (Max):

0.827" (21.00mm)

Environmental & Export classification

RoHS Status:

ROHS3 Compliant

REACH Status:

REACH Unaffected

HTSUS:

8504.50.4000

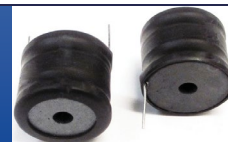
Moisture Sensitivity Level (MSL):

1 (Unlimited)

ECCN:

EAR99

Radial Drum Core Power Choke


AIRD-03

Request Samples



Check Inventory


21.0 x Ø28.0 mm
RoHS/RoHS II Compliant
MSL Level = 1

Features

- Ferrite core with UL tube.
- Wire wound construction.
- High current rated up to 116A
- Low DCR down to 3mΩ

Applications

- Electronic Appliances
- Power Supplies
- TRIAC/SCR Control Circuits

Electrical Specifications

Part Number	Inductance	Tolerance	DC Resistance	Saturation Current	Temperature Rise Current	Dimension D
	1KHz/0.1Vrms		Max	Typ.	Typ.	Nominal
Units	μH	%	Ω	A	A	Pin Dia.
Symbol	L	K, M, N	DCR	Isat	Irms	Inch/mm
AIRD-03-1R0	1.0	N,M	0.003	116	21	0.063/1.6
AIRD-03-1R2	1.2	N,M	0.003	116	21	0.063/1.6
AIRD-03-1R5	1.5	N,M	0.003	116	21	0.063/1.6
AIRD-03-1R8	1.8	N,M	0.003	90	21	0.063/1.6
AIRD-03-2R2	2.2	M	0.003	90	21	0.063/1.6
AIRD-03-2R7	2.7	M	0.003	74	21	0.063/1.6
AIRD-03-3R3	3.3	M	0.003	74	21	0.063/1.6
AIRD-03-3R9	3.9	M	0.003	62	21	0.063/1.6
AIRD-03-4R7	4.7	M	0.003	54	21	0.063/1.6
AIRD-03-5R6	5.6	M	0.003	54	21	0.063/1.6
AIRD-03-6R8	6.8	M	0.004	47	21	0.063/1.6
AIRD-03-8R2	8.2	K,M	0.004	42	21	0.063/1.6
AIRD-03-100	10	K	0.006	38	17	0.063/1.6
AIRD-03-120	12	K	0.008	35	13.5	0.055/1.4
AIRD-03-150	15	K	0.009	32	13.5	0.055/1.4
AIRD-03-180	18	K	0.010	29	13.5	0.055/1.4
AIRD-03-220	22	K	0.011	25	13.5	0.055/1.4
AIRD-03-270	27	K	0.012	23	13.5	0.055/1.4
AIRD-03-330	33	K	0.017	20	13.5	0.055/1.4
AIRD-03-390	39	K	0.022	19	11.4	0.047/1.2
AIRD-03-470	47	K	0.024	19	9.0	0.047/1.2
AIRD-03-560	56	K	0.026	17	9.0	0.047/1.2
AIRD-03-680	68	K	0.029	15	9.0	0.047/1.2
AIRD-03-820	82	K	0.032	14	9.0	0.047/1.2
AIRD-03-101	100	K	0.034	13	9.0	0.047/1.2
AIRD-03-121	120	K	0.046	12	7.2	0.047/1.2
AIRD-03-151	150	K	0.064	10	5.5	0.039/1.0
AIRD-03-181	180	K	0.072	9.7	5.5	0.039/1.0
AIRD-03-221	220	K	0.080	8.7	5.5	0.035/0.9
AIRD-03-271	270	K	0.110	7.9	4.5	0.031/0.8
AIRD-03-331	330	K	0.122	7.1	4.5	0.031/0.8
AIRD-03-391	390	K	0.169	6.7	4.0	0.028/0.7



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Radial Drum Core Power Choke



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21.0 x Ø28.0 mm
 RoHS/RoHS II Compliant
 MSL Level = 1

Electrical Specifications Continued

Part Number	Inductance	Tolerance	DC Resistance	Saturation Current	Temperature Rise Current	Dimension D
	1KHz/0.1Vrms		Max	Max	Max	Nominal
Units	µH	%	Ω	A	A	Pin Dia.
Symbol	L	K, M, N	DCR	Isat	Irms	Inch/mm
AIRD-03-471	470	K	0.187	6.0	4.0	0.028/0.7
AIRD-03-561	560	K	0.210	5.5	4.0	0.028/0.7
AIRD-03-681	680	K	0.256	5.0	2.8	0.028/0.7
AIRD-03-821	820	K	0.320	4.5	2.0	0.028/0.7
AIRD-03-102	1000	K	0.426	4.1	2.0	0.024/0.6
AIRD-03-122	1200	K	0.462	3.7	2.0	0.024/0.6
AIRD-03-152	1500	K	0.518	3.4	2.0	0.024/0.6
AIRD-03-182	1800	K	0.705	2.8	1.6	0.020/0.5
AIRD-03-222	2200	K	1.020	2.5	1.3	0.020/0.5
AIRD-03-272	2700	K	1.140	2.3	1.3	0.018/0.45
AIRD-03-332	3300	K	1.270	2.0	1.3	0.018/0.45
AIRD-03-392	3900	K	1.670	1.8	1.0	0.016/0.40
AIRD-03-472	4700	K	1.860	1.7	1.0	0.016/0.40
AIRD-03-193	19000	K	9.00	1.0	0.5	0.010/0.25

Test Conditions

L: Inductance test parameters 1KHz, 0.1Vrms

Isat: DC current at which the inductance drops 10% from its value without current.

Irms: DC current that causes the temperature rise (ΔT , approximate 40 °C)

Operating Temperature: -25°C ~ +125°C (including self-temperature rise)

Storage Condition: -25°C ~ +125°C (on PCB), -25°C ~ +85°C, relative humidity of ≤75% (in packaging)

AIRD-03 Series is RoHS Compliant and Pb free

AIRD-03 is Standard Grade

Part Identification

AIRD-03-

Inductance Code

See Electrical Specification table

Tolerance

K = ± 10%

M = ± 20%

N = ± 30%

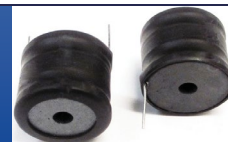


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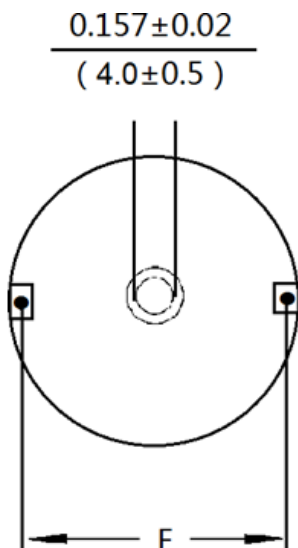
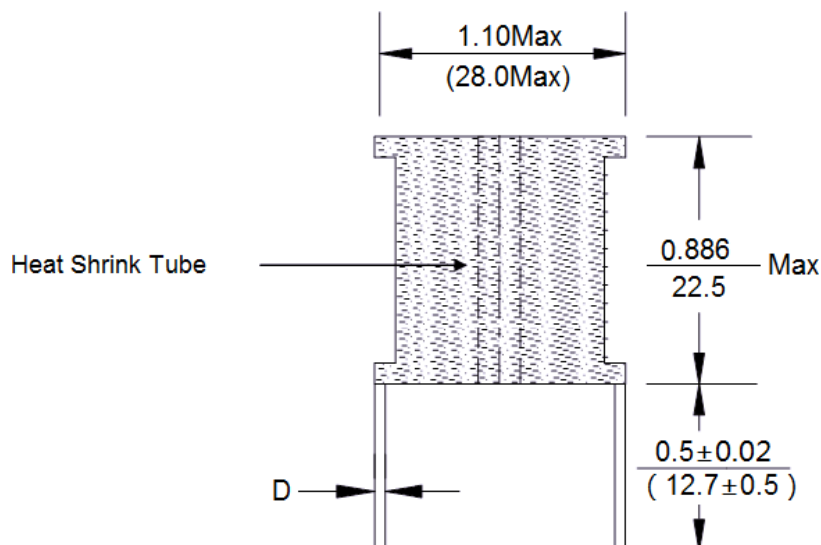
AIRD-03

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RoHS/RoHS II Compliant
MSL Level = 1

Mechanical Specifications



Inductance	Pin Spacing (E)
1.0µH – 33µH	22 mm Typ
39µH – 820µH	21 mm Typ
≥1mH	20mm Typ

Dimension: inch (mm)

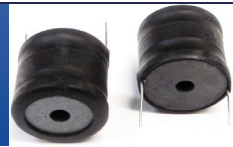


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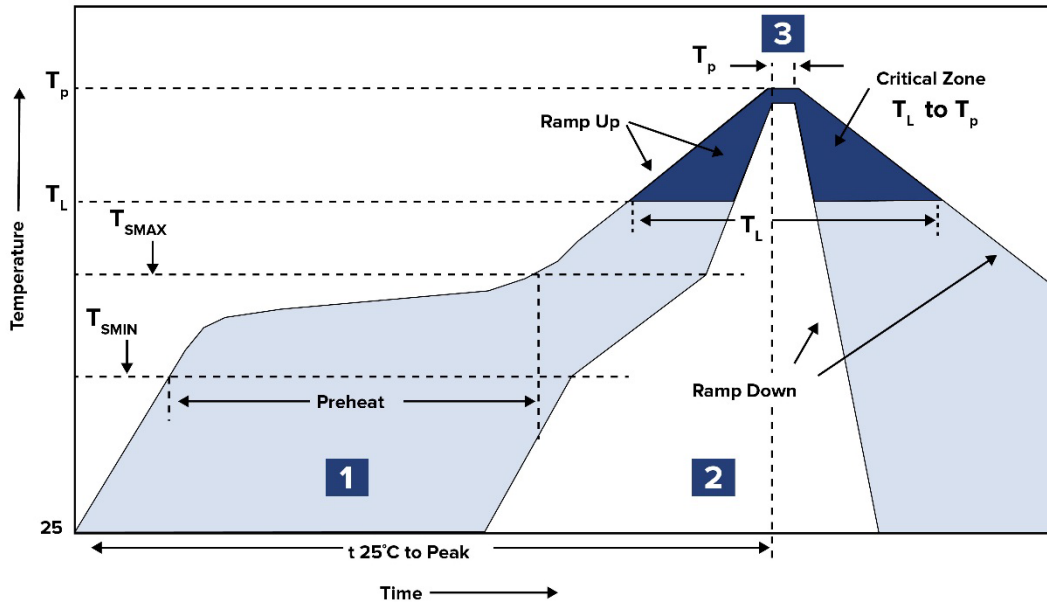


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Wave Soldering Profile



Zone	Description	Temperature	Times
1	Preheat	$T_{SMIN} \sim T_{SMAX}$ 100°C ~ 130°C	10 ~ 70 sec.
2	Wave/Reflow	T_L 165°C ~ 230°C	10 sec. MAX
3	Peak heat	T_P 260°C	10 sec. MAX

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