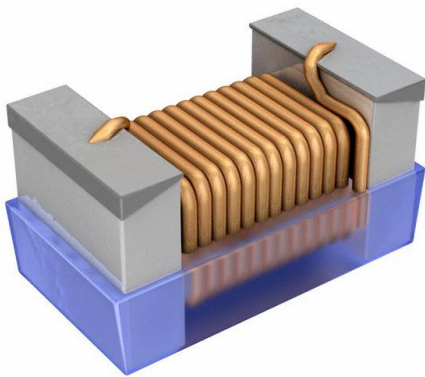


# AISC-0603F-R10K-T Datasheet

[www.digi-electronics.com](http://www.digi-electronics.com)



<https://www.DiGi-Electronics.com>

DiGi Electronics Part Number	AISC-0603F-R10K-T-DG
Manufacturer	<a href="#">Abracon LLC</a>
Manufacturer Product Number	AISC-0603F-R10K-T
Description	FIXED IND 100NH 850MA 110MOHM SM
Detailed Description	100 nH Unshielded Drum Core, Wirewound Inductor 850 mA 110mOhm Max 0603 (1608 Metric)



Tel: +00 852-30501935

RFQ Email: [Info@DiGi-Electronics.com](mailto:Info@DiGi-Electronics.com)

DiGi is a global authorized distributor of electronic components.

## Purchase and inquiry

Manufacturer Product Number:

AISC-0603F-R10K-T

Series:

AISC-0603F

Type:

Drum Core, Wirewound

Inductance:

100 nH

Current Rating (Amps):

850 mA

Shielding:

Unshielded

Q @ Freq:

-

Ratings:

-

Inductance Frequency - Test:

7.9 MHz

Package / Case:

0603 (1608 Metric)

Size / Dimension:

0.063" L x 0.039" W (1.60mm x 1.00mm)

Manufacturer:

Abracon LLC

Product Status:

Active

Material - Core:

Ferrite

Tolerance:

±10%

Current - Saturation (Isat):

-

DC Resistance (DCR):

110mOhm Max

Frequency - Self Resonant:

1.37GHz

Operating Temperature:

-40°C ~ 85°C

Mounting Type:

Surface Mount

Supplier Device Package:

0603 (1608 Metric)

Height - Seated (Max):

0.047" (1.20mm)

## Environmental & Export classification

RoHS Status:

ROHS3 Compliant

REACH Status:

REACH Unaffected

HTSUS:

8504.50.8000

Moisture Sensitivity Level (MSL):

1 (Unlimited)

ECCN:

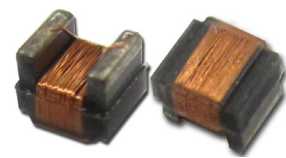
EAR99

# FERRITE WIRE WOUND INDUCTORS

## AISC-0603F



### RoHS/RoHS II Compliant



1.6 x 1.0 x 1.0mm

### FEATURES:

- Higher inductance values than other 0603 inductors
- Ferrite construction for high current rating
- Inductance values: 47 nH – 22  $\mu$ H; 5% tolerance available

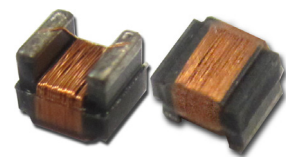
### APPLICATIONS:

- Camcorders, LED TVs and other electronic devices

### STANDARD SPECIFICATIONS:

Part Number AISC-0603F- Inductance Code	Inductance	Tolerance	L Test Freq.	Max. DC Resistance	Max. Rated Current	Min. Self-resonant Frequency
Units	nH	-	MHz	$\Omega$	mA	MHz
Symbol	L	-	Freq.	DCR	I <sub>r</sub>	S.R.F
AISC-0603F-47N	47	J, K, M	7.9	0.06	1200	2350
AISC-0603F-51N	51	J, K, M	7.9	0.07	1050	2300
AISC-0603F-R10	100	K, M	7.9	0.11	850	1370
AISC-0603F-R12	120	J, K, M	7.9	0.18	670	1340
AISC-0603F-R15	150	J, K, M	7.9	0.12	820	1260
AISC-0603F-R18	180	J, K, M	7.9	0.19	670	1060
AISC-0603F-R20	200	J, K, M	7.9	0.14	740	1030
AISC-0603F-R22	220	J, K, M	7.9	0.20	650	850
AISC-0603F-R24	240	J, K, M	7.9	0.17	690	800
AISC-0603F-R25	250	J, K, M	7.9	0.17	690	910
AISC-0603F-R27	270	J, K, M	7.9	0.24	630	780
AISC-0603F-R33	330	J, K, M	7.9	0.29	510	730
AISC-0603F-R39	390	J, K, M	7.9	0.33	490	750
AISC-0603F-R47	470	J, K, M	7.9	0.37	470	670
AISC-0603F-R50	500	J, K, M	7.9	0.45	410	610
AISC-0603F-R56	560	J, K, M	7.9	0.51	380	590
AISC-0603F-R62	620	J, K, M	7.9	0.48	390	570
AISC-0603F-R65	650	J, K, M	7.9	0.61	350	550
AISC-0603F-R68	680	J, K, M	7.9	0.77	310	520
AISC-0603F-R78	780	J, K, M	7.9	0.83	300	480
AISC-0603F-R82	820	J, K, M	7.9	0.88	290	500
AISC-0603F-1R0	1000	J, K, M	7.9	0.94	280	410
AISC-0603F-1R2	1200	J, K, M	7.9	1.10	260	370
AISC-0603F-1R5	1500	J, K, M	7.9	1.30	240	340
AISC-0603F-1R8	1800	J, K, M	7.9	1.40	230	190
AISC-0603F-2R2	2200	J, K, M	7.9	1.50	220	120
AISC-0603F-2R7	2700	J, K, M	7.9	1.60	210	70
AISC-0603F-3R3	3300	J, K, M	7.9	1.80	200	60
AISC-0603F-3R9	3900	J, K, M	7.9	1.90	190	50
AISC-0603F-4R7	4700	J, K, M	7.9	2.70	160	50
AISC-0603F-5R6	5600	J, K, M	7.9	3.00	150	40
AISC-0603F-6R8	6800	J, K, M	7.9	4.00	130	40
AISC-0603F-7R8	7800	J, K, M	7.9	4.40	120	40
AISC-0603F-8R2	8200	J, K, M	7.9	4.50	110	40
AISC-0603F-100	10000	J, K, M	2.5	5.00	100	30
AISC-0603F-150	15000	J, K, M	2.5	9.50	90	20
AISC-0603F-180	18000	J, K, M	2.5	10.40	80	20
AISC-0603F-220	22000	J, K, M	2.5	11.40	70	20

# FERRITE WIRE WOUND INDUCTORS



1.6 x 1.0 x 1.0mm

**AISC-0603F**



**RoHS/RoHS II Compliant**

### Test Equipment

Inductance (L): Agilent 4287A+Agilent 16197A or equivalent, -13dBm or 10mA

DC Resistance (DCR): HIOKI 3540 or equivalent

Q Factor (Q): Agilent4287A+Agilent16197A or equivalent, -13dBm or 10mA

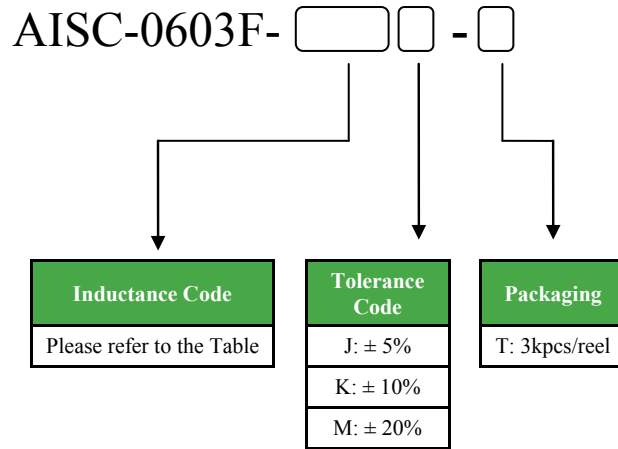
Self-Resonant Frequency (SRF): Agilent4991B+Agilent16197A and HP 8753E or equivalent, -20dBm or 50mV

Rated Current (Ir): Ir is direct electric current as chip surface temperature rose just 40°C against chip initial surface temperature (Ta)

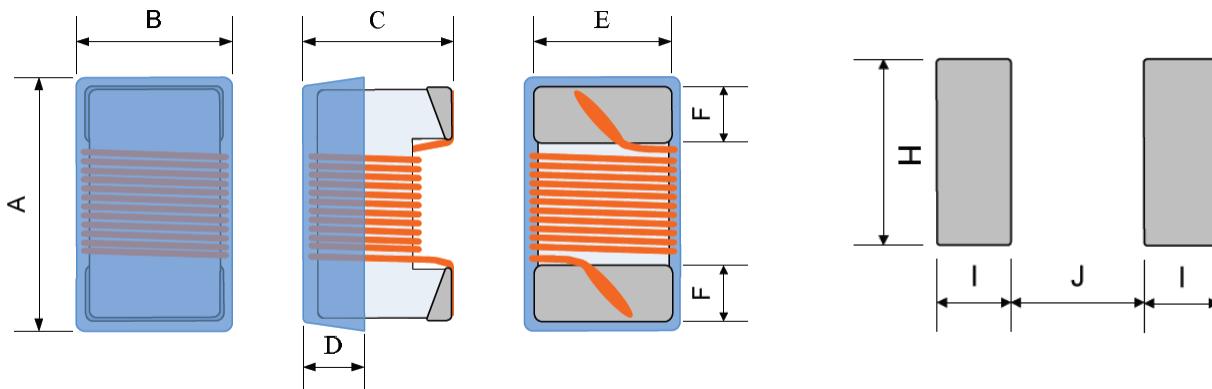
**Operating Temperature:** -40°C to +85°C

**Storage Temperature:** -10°C to +40°C, 70% RH max. in tape and reel

## PART NUMBER IDENTIFICATION



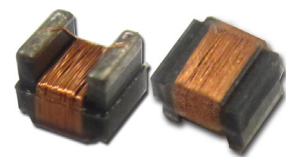
## OUTLINE DIMENSIONS:



A	B	C	D REF.	E REF.	F REF.	H REF.	I REF.	J REF.
1.6±0.2	1.0±0.2	1.0±0.2	0.38	0.76	0.30	1.02	0.64	0.64

**Dimension: mm**

# FERRITE WIRE WOUND INDUCTORS



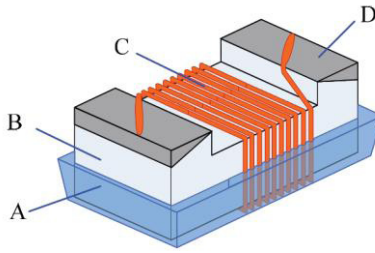
1.6 x 1.0 x 1.0mm

AISC-0603F



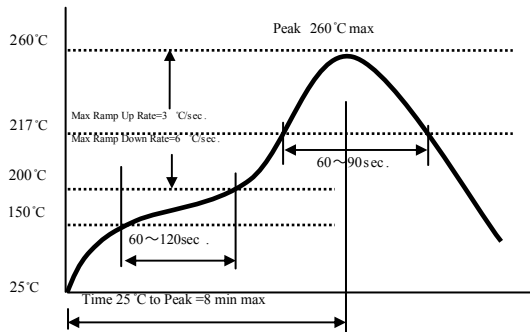
RoHS/RoHS II Compliant

## Materials



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

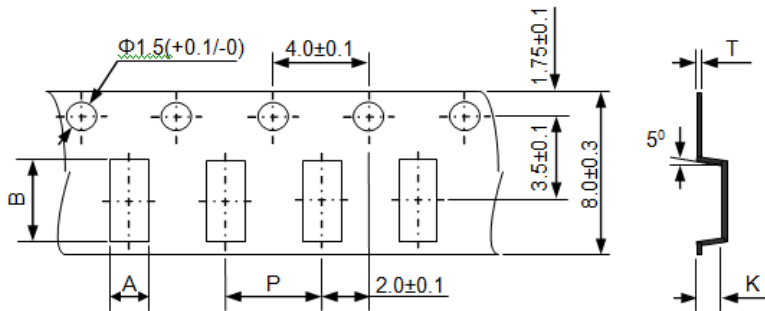
## REFLOW PROFILE:



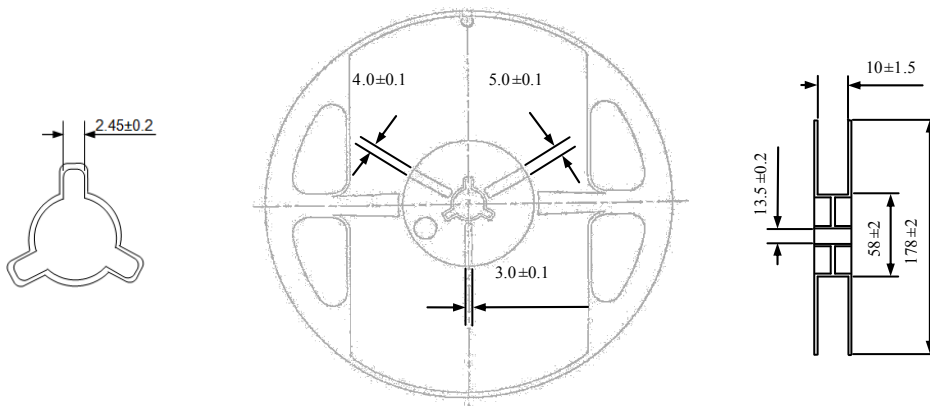
- Preheat condition: 150 ~200°C/60~120sec.
- Allowed time above 217 °C: 60~90sec.
- Max temp: 260 °C
- Max time at max temp: 10sec.
- Solder paste: Sn/3.0Ag/0.5Cu
- Allowed Reflow time: 2x max

## TAPE & REEL:

T= tape and reel (3,000pcs/reel)



A	B	P	K	T
1.20±0.05	1.85±0.05	4.0±0.1	1.02±0.05	0.23±0.05



Dimension: mm

**ATTENTION:** Abracon Corporation's products are COTS – Commercial-Off-The-Shelf products; suitable for Commercial, Industrial and, where designated, Automotive Applications. Abracon's products are not specifically designed for Military, Aviation, Aerospace, Life-dependant Medical applications or any application requiring high reliability where component failure could result in loss of life and/or property. For applications requiring high reliability and/or presenting an extreme operating environment, written consent and authorization from Abracon Corporation is required. Please contact Abracon Corporation for more information.

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Revised: 10.11.13

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