



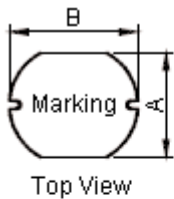
PART NO.

MCSDC0503-331KU

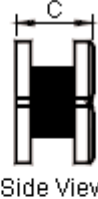
## REVISIONS

ECN #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
-	A	RELEASED	Ashok	10/2/11	Jagan	10/2/11	Farnell	24/2/11

## Configurations and Dimensions



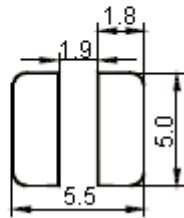
Top View



Side View



Bottom View

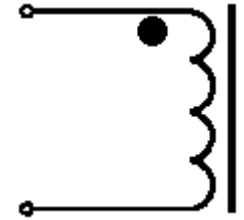


Suggest PCB Layout

Dimensions : Millimetres

A	4.8 ±0.5 mm	-
B	5 ±0.3 mm	-
C	3 ±0.3 mm	-
D	2 mm	(Reference)

## Schematic Diagram



## Note:

1. Wire Ø0.1mm x 1P 2UEF1/U 155°C
2. 114.5TS (Reference)



Marking : 331

## Electrical Characteristics

(at 25°C)

Test Condition		
1KHz 1V	L	330µH ±10%
at 25°C	DCR	3.3Ω (Maximum)
1KHz 1V I <sub>rms</sub> = 0.21A	ΔT	Temperature Rise 40°C (Maximum)

Operating temperature: -55°C to +130°C

## Test Data for Mechanical

Test Item	A mm	B mm	C mm	D mm
Specification	4.8 ±0.5	5 ±0.3	3 ±0.3	2 (Reference)
1	4.6	4.86	3.05	1.74
2	4.54	4.88	3.02	1.77
3	4.56	4.85	3.03	1.74
4	4.61	4.87	3.02	1.81
5	4.53	4.85	3.03	1.68
Average	4.57	4.86	3.03	1.75

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## DRAWN BY:

Ashok

## DATE:

10/02/11

## CHECKED BY:

Jagan

## DATE:

10/02/11

## APPROVED BY:

Farnell

## DATE:

24/02/11

## DRAWING TITLE:

Inductor

SIZE  
A

DWG NO.

M10003095

ELECTRONIC FILE  
SDC0503-331KUREV  
A

SCALE: NTS

U.O.M.: mm

SHEET: 1 OF 3



PART NO.

MCSDC0503-331KU

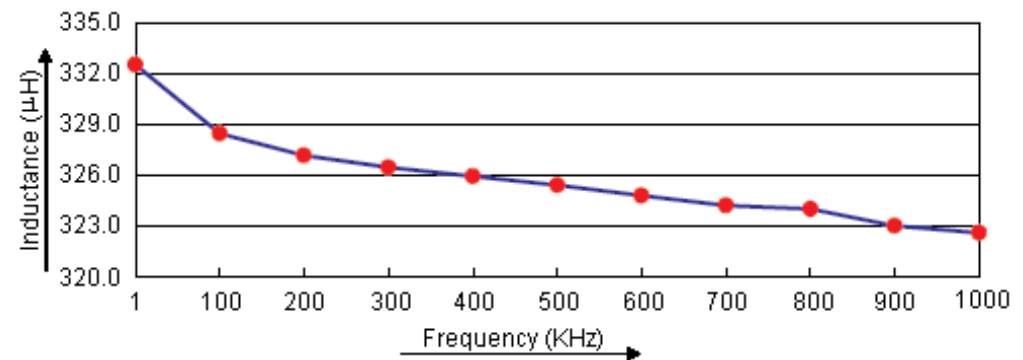
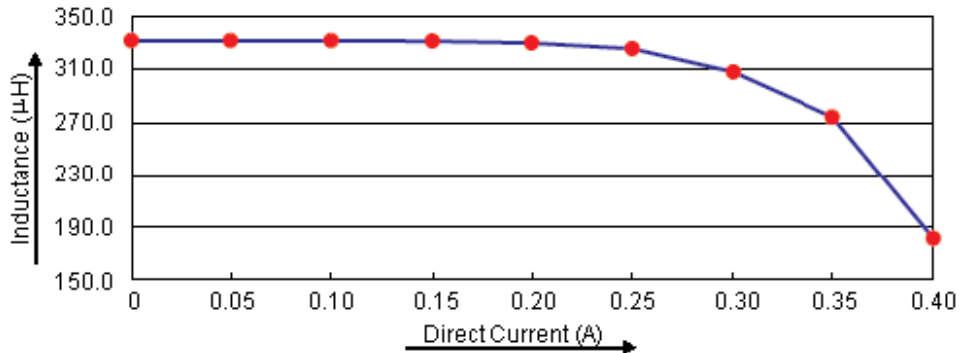
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## Test Data for Electrical

Test Item	L $\mu$ H	DCR $\Omega$	$\Delta$ T
Condition	1KHz 1V	at 25°C	1KHz 1V I <sub>rms</sub> = 0.21A
Specification	330 $\pm$ 10%	3.3 (Maximum)	Temperature rise 40°C (Maximum)
1	333.9	2.69	OK
2	332.6	2.71	OK
3	330.8	2.74	OK
4	331.4	2.67	OK
5	331.5	2.73	OK
Average	332.04	2.71	OK

## Electric Characteristics



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CHECKED BY:

Jagan

DATE:

10/02/11

APPROVED BY:

Farnell

DATE:

24/02/11

DRAWING TITLE:

Inductor

SIZE  
A

DWG NO.

M10003095

ELECTRONIC FILE

SDC0503-331KU

REV

A

SCALE: NTS

U.O.M.: mm

SHEET: 2 OF 3



PART NO.

MCSDC0503-331KU

## REVISIONS

ECN #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
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## Reliability Test

Test Item	Specifications	Test Method and Remarks
Operating temperature range	-55°C to +130°C	Including temperature rise due to self-generated heat
Storage condition	Ambient temperature : 0°C to 40°C Humidity : Below 70%RH	To maintain the solderability of terminal electrodes, care must be taken to control temperature and humidity in the storage area.
Moisture sensitivity	Appearance : No abnormality No damage DCR change : Within ±20% Inductance change : Within ±20%	According to J-STD-020B level 3 Test condition :60°C 60% RH Test duration :40 hours Recovery :1 to 2 hours of recovery under the standard condition after the removal from the test chamber.
Solderability	All termination shall exhibit a continuous solder coating free from defects for a minimum of 90% of the surface area of any individual lead.	According to J-STD-002B Steam aging category : 97°C 98% RH Steam aging duration : 8 hours Solder : Lead-free solder Solder temperature : 260 ±5°C Dip time : 5 +0/-0.5 seconds.

## Material List

No.	Item	Material Description
1	Core	R5A CDR5 x 3 (ST) B2 F1.5
2	Wire	Ø0.1mm x 1P 2UEF1/U 155°C
3	Solder (Lead Free)	Sn99.3%/Cu0.7%
4	Glue	TH320

## Part Number Table

Description	Part Number
Inductors, 330µH, 10%, SMD	MCSDC0503-331KU

<http://www.farnell.com><http://www.newark.com><http://www.cpc.co.uk>

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SIZE  
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ELECTRONIC FILE  
SDC0503-331KUREV  
A

SCALE: NTS

U.O.M.: mm

SHEET: 3 OF 3