



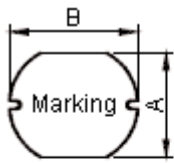
PART NO.

MCSDC0503-103JU

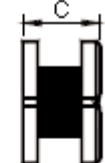
REVISIONS

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



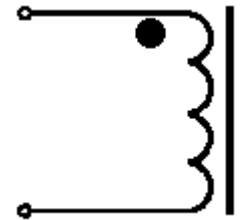
Top View



Side View

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

Schematic Diagram

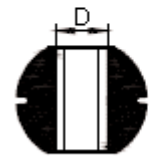


Note:

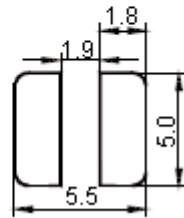
1. Wire Ø0.04mm x 1P Gread 1 180°C
2. 616.5TS (Reference)

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



Bottom View



Suggest PCB Layout

Dimensions : Millimetres

Marking : 103

Electrical Characteristics

(at 25°C)

Test Condition		
1KHz 1V	L	10mH ±5%
at 25°C	DCR	110Ω (Maximum)
1KHz 1V I _{rms} = 0.027A	ΔT	Temperature rise 40°C (Maximum)

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

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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.

M10003089

ELECTRONIC FILE
SDC0503-103JU

REV
A

SCALE: NTS

U.O.M.: mm

SHEET: 1 OF 3



PART NO.

MCSDC0503-103JU

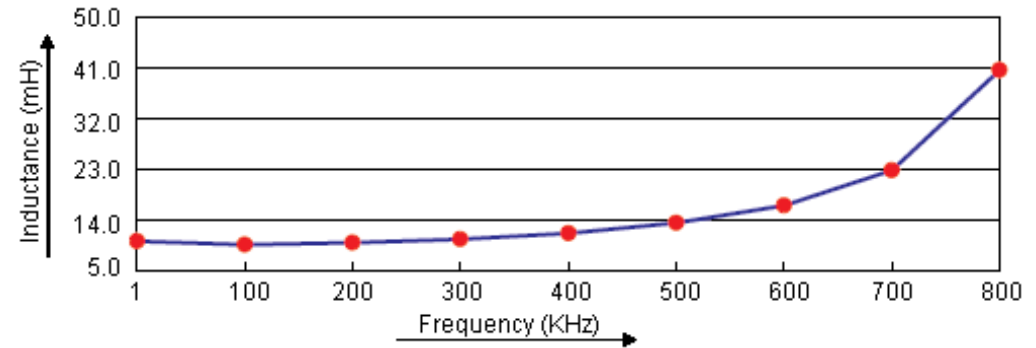
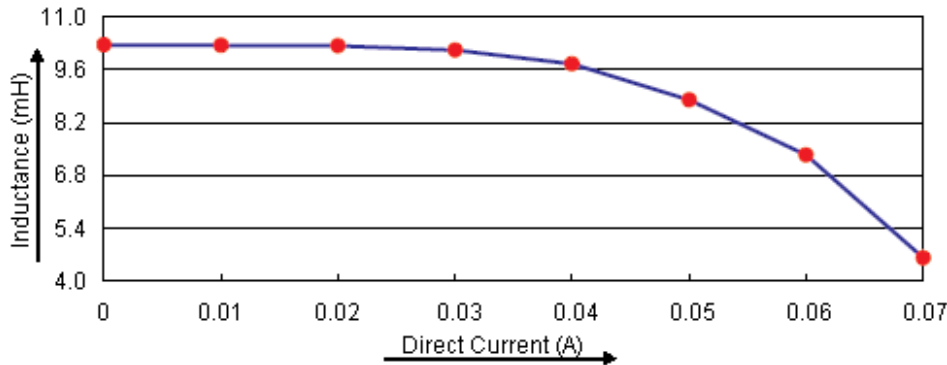
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Test Data for Electrical

Test Item	L mH	DCR Ω	ΔT
Condition	1KHz 1V	at 25°C	1KHz 1V I _{rms} = 0.027A
Specification	10 ±5%	110 (Maximum)	Temperature rise 40°C (Maximum)
1	10.25	80.7	OK
2	10.19	81.15	OK
3	10.06	81.23	OK
4	10.11	80.87	OK
5	10.13	80.49	OK
Average	10.15	80.89	OK

Electric Characteristics



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Jagan	10/02/11
APPROVED BY:	DATE:
Farnell	24/02/11

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Inductor			
SIZE	DWG NO.	ELECTRONIC FILE	REV
A	M10003089	SDC0503-103JU	A
SCALE: NTS		U.O.M.: mm	SHEET: 2 OF 3



PART NO.

MCSDC0503-103JU

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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) B1.8 F1.5
2	Wire	Ø0.04mm x 1P Gread 1 180°C
3	Solder (Lead Free)	Sn99.3%/Cu0.7%
4	Glue	TH320

Part Number Table

Description	Part Number
Inductors, 10MH, 5%, SMD	MCSDC0503-103JU

<http://www.farnell.com>

<http://www.newark.com>

<http://www.cpc.co.uk>

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Inductor			
SIZE	DWG NO.	ELECTRONIC FILE	REV
A	M10003089	SDC0503-103JU	A
SCALE: NTS		U.O.M.: mm	SHEET: 3 OF 3