



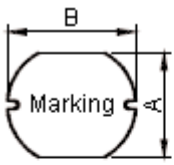
PART NO.

MCSDC0503-222JU

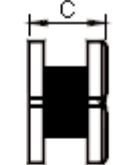
REVISIONS

ECN #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
-	A	RELEASED	ASK	20/4/11	ASH	20/4/11		4/05/11

Configurations and Dimensions

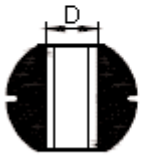


Top View

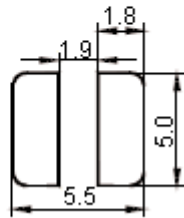


Side View

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



Bottom View

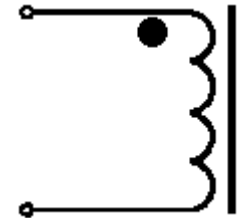


Suggest PCB Layout

Dimensions : Millimetres



Schematic Diagram



Note:

1. Wire Ø0.06mm × 1P Grade 1 180°C
2. 297.5TS (Reference)

Marking : 222

Electrical Characteristics (at 25°C)

Test Condition		
1 KHz 1 V	L	2.2 mH ±5%
at 25°C	DCR	22 Ω (Max.)
1 KHz 1 V I _{rms} = 0.053 A	ΔT	Temperature rise 40°C (Max.)

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 (Ref.)
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

Important Notice : This data sheet and its contents (the "Information") belong to the members of the Premier Farnell group of companies (the "Group") or are licensed to it. No licence is granted for the use of it other than for information purposes in connection with the products to which it relates. No licence of any intellectual property rights is granted. The Information is subject to change without notice and replaces all data sheets previously supplied. The Information supplied is believed to be accurate but the Group assumes no responsibility for its accuracy or completeness, any error in or omission from it or for any use made of it. Users of this data sheet should check for themselves the Information and the suitability of the products for their purpose and not make any assumptions based on information included or omitted. Liability for loss or damage resulting from any reliance on the Information or use of it (including liability resulting from negligence or where the Group was aware of the possibility of such loss or damage arising) is excluded. This will not operate to limit or restrict the Group's liability for death or personal injury resulting from its negligence. Multicomp is the registered trademark of the Group. © Premier Farnell plc 2011.

TOLERANCES:

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE FOR REFERENCE PURPOSES ONLY.

DRAWN BY:

ASK

CHECKED BY:

ASH

APPROVED BY:

DATE:

20/04/11

DATE:

20/04/11

DATE:

04/05/11

DRAWING TITLE:

Inductor

SIZE
A

DWG NO.

M10003094

ELECTRONIC FILE
MCSDC0503-222JU

REV
A

SCALE: NTS

U.O.M.: mm

SHEET: 1 OF 3



PART NO.

MCSDC0503-222JU

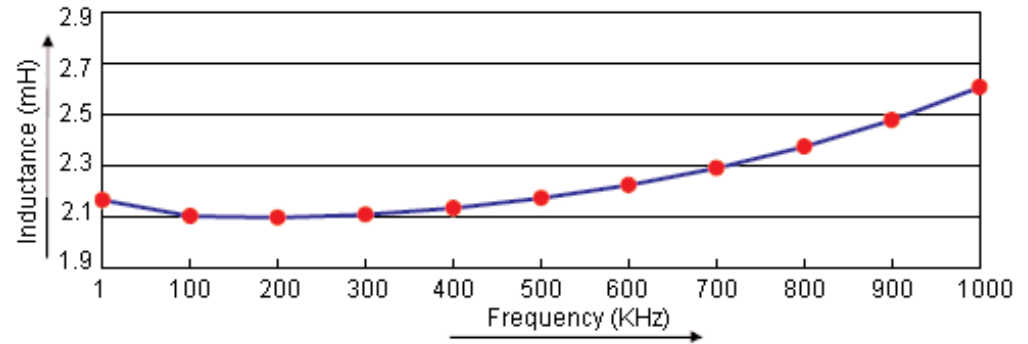
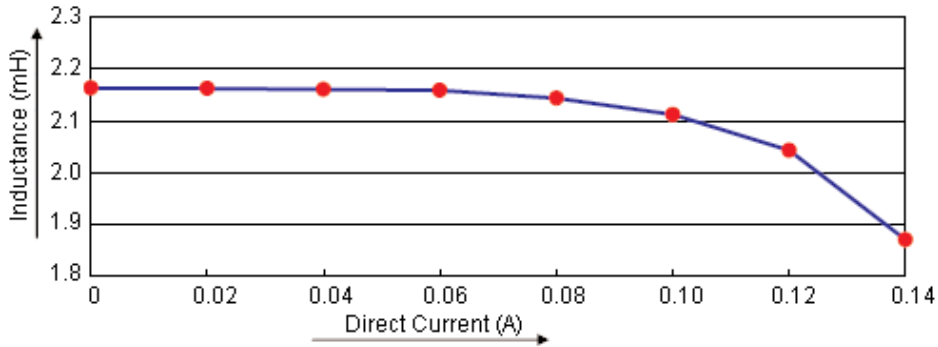
REVISIONS

ECN #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
-	A	RELEASED	ASK	20/4/11	ASH	20/4/11		4/05/11

Test Data for Electrical

Test Item	L mH	DCR Ω	ΔT
Condition	1 KHz 1 V	at 25°C	1 KHz 1 V $I_{rms} = 0.053 A$
Specification	2.2 ±5%	22 (Max.)	Temperature rise 40°C (Max.)
1	2.16	17.49	OK
2	2.18	18.18	
3	2.19	17.57	
4	2.21	18.06	
5	2.18	17.85	
Average	2.18	17.83	OK

Electric Characteristics



Important Notice : This data sheet and its contents (the "Information") belong to the members of the Premier Farnell group of companies (the "Group") or are licensed to it. No licence is granted for the use of it other than for information purposes in connection with the products to which it relates. No licence of any intellectual property rights is granted. The Information is subject to change without notice and replaces all data sheets previously supplied. The Information supplied is believed to be accurate but the Group assumes no responsibility for its accuracy or completeness, any error in or omission from it or for any use made of it. Users of this data sheet should check for themselves the Information and the suitability of the products for their purpose and not make any assumptions based on information included or omitted. Liability for loss or damage resulting from any reliance on the Information or use of it (including liability resulting from negligence or where the Group was aware of the possibility of such loss or damage arising) is excluded. This will not operate to limit or restrict the Group's liability for death or personal injury resulting from its negligence. Multicomp is the registered trademark of the Group. © Premier Farnell plc 2011.

TOLERANCES:

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE FOR REFERENCE PURPOSES ONLY.

DRAWN BY:	DATE:
ASK	20/04/11
CHECKED BY:	DATE:
ASH	20/04/11
APPROVED BY:	DATE:
	04/05/11

DRAWING TITLE:

Inductor

SIZE A	DWG NO. M10003094	ELECTRONIC FILE MCSDC0503-222JU	REV A
SCALE: NTS		U.O.M.: mm	SHEET: 2 OF 3



PART NO.

MCSDC0503-222JU

REVISIONS

ECN #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
-	A	RELEASED	ASK	20/4/11	ASH	20/4/11		4/05/11

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 hrs 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 hrs Solder : Lead-free solder Solder temperature : 260 ±5°C Dip time : 5 +0 / -0.5 s

Material List

No.	Item	Material Description
1	Core	R5A CDR5 × 3 (ST) B2 F1.5
2	Wire	Ø0.06 mm × 1P Grade 1 (180°C)
3	Solder (Lead-free)	Sn99.3% / Cu0.7%
4	Glue	TH320

Part Number Table

Description	Part Number
Inductor, 2.2MH, 5%, SMD	MCSDC0503-222JU

<http://www.element14.com>

<http://www.farnell.com>

<http://www.newark.com>

Important Notice : This data sheet and its contents (the "Information") belong to the members of the Premier Farnell group of companies (the "Group") or are licensed to it. No licence is granted for the use of it other than for information purposes in connection with the products to which it relates. No licence of any intellectual property rights is granted. The Information is subject to change without notice and replaces all data sheets previously supplied. The Information supplied is believed to be accurate but the Group assumes no responsibility for its accuracy or completeness, any error in or omission from it or for any use made of it. Users of this data sheet should check for themselves the Information and the suitability of the products for their purpose and not make any assumptions based on information included or omitted. Liability for loss or damage resulting from any reliance on the Information or use of it (including liability resulting from negligence or where the Group was aware of the possibility of such loss or damage arising) is excluded. This will not operate to limit or restrict the Group's liability for death or personal injury resulting from its negligence. Multicomp is the registered trademark of the Group. © Premier Farnell plc 2011.

TOLERANCES:

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE FOR REFERENCE PURPOSES ONLY.

DRAWN BY:	DATE:
ASK	20/04/11
CHECKED BY:	DATE:
ASH	20/04/11
APPROVED BY:	DATE:
	04/05/11

DRAWING TITLE:

Inductor

SIZE A	DWG NO. M10003094	ELECTRONIC FILE MCSDC0503-222JU	REV A
SCALE: NTS	U.O.M.: mm	SHEET: 3 OF 3	