



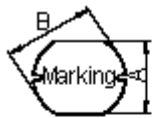
PART NO.

MCSD43-100MU

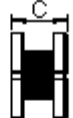
REVISIONS

ECN #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
-	A	RELEASED	Ashok	09/2/11	Jagan	09/2/11	Farnell	23/2/11

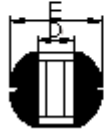
Configurations and Dimensions



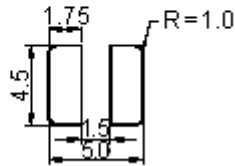
Top View



Side View



Bottom View

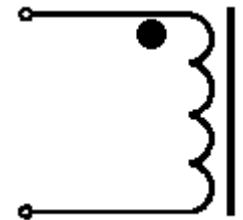


Suggest PCB Layout

Dimensions : Millimetres

A	4 ±0.3 mm	-
B	4.5 ±0.3 mm	-
C	3.2 ±0.3 mm	-
D	1 mm	(Reference)
E	4.5 ±0.5 mm	-

Schematic Diagram



Note:

- (1) Wire Ø0.2mm x 1P 2UEWF 155°C
- (2) 21.5TS (Reference)

Marking: 100

Electrical Characteristics

(at 25°C)

Test Condition		
100KHz 0.25V	L	10µH ±20%
at 25°C	DCR	182mΩ (Maximum)
100KHz 0.25V I <sub>sat</sub> = 1.04A	L at I <sub>sat</sub>	L drops 10% (Typical)

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

Test Data for Mechanical

Test Item	A mm	B mm	C mm	D mm	E mm
Specification	4 ±0.3	4.5 ±0.3	3.2 ±0.3	1 (Reference)	4.5 ±0.5
1	4.15	4.63	3.37	1.24	4.27
2	4.21	4.75		1.89	4.28
3	4.14	4.68	3.36	1.55	4.23
4	4.19	4.73		1.72	4.26
5	4.27	4.71		1.56	4.25
Average	4.19	4.7	3.36	1.59	4.26

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Ashok	09/02/11
CHECKED BY:	DATE:
Jagan	09/02/11
APPROVED BY:	DATE:
Farnell	23/02/11

DRAWING TITLE:

Inductor

SIZE	DWG NO.	ELECTRONIC FILE	REV
A	M10003065	SD43-100MU	A
SCALE: NTS	U.O.M.: mm	SHEET: 1 OF 3	



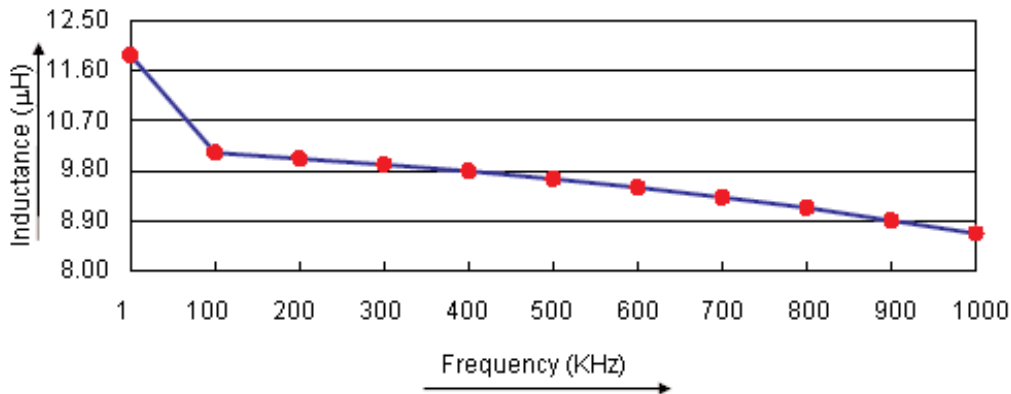
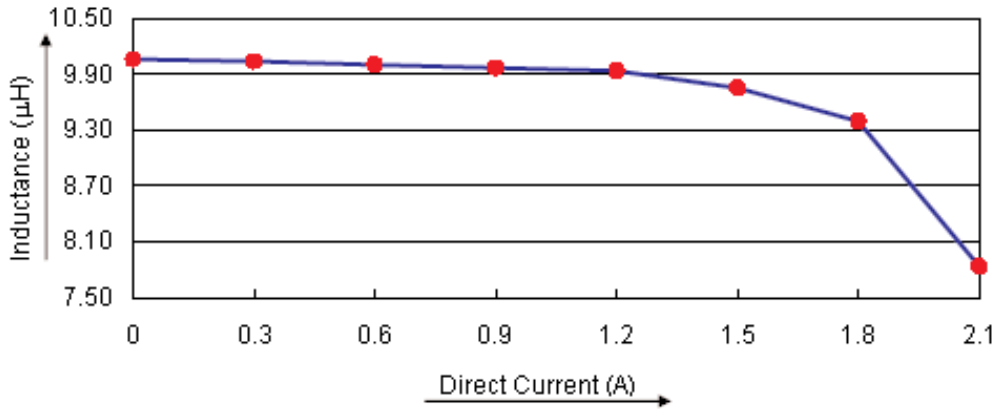
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MCSD43-100MU

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Electric Characteristics



Test Data for Electrical

Test Item	L µH	DCR mΩ	L at I <sub>sat</sub> µH
Condition	100KHz 0.25V	at 25°C	100KHz 0.25V I <sub>sat</sub> = 1.04A
Specification	10 ±20%	182 (Maximum)	L drops 10% (Typical)
1	10.1	115.25	9.97
2	10.02	113.48	9.93
3	9.43	112.56	9.35
4	9.18	118.14	9.1
5	9.25	117.07	9.2
Average	9.6	115.3	9.51

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Farnell	23/02/11

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Inductor			
SIZE	DWG NO.	ELECTRONIC FILE	REV
A	M10003065	SD43-100MU	A
SCALE: NTS	U.O.M.: mm	SHEET: 2 OF 3	



PART NO.

MCS43-100MU

REVISIONS

ECN #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
-	A	RELEASED	Ashok	09/2/11	Jagan	09/2/11	Farnell	23/2/11

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 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 CDR4.5 x 3.2(ST) B2 F1.5
2	Wire	Ø0.2mm x 1P 2UEWF 155°C
3	Solder (Lead Free)	Sn99.3% / Cu0.7%

Part Number Table

Description	Part Number
Inductor, 10µH, 20%, 1.2A	MCS43-100MU

<http://www.farnell.com>

<http://www.newark.com>

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

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Farnell	23/02/11

DRAWING TITLE:

Inductor

SIZE A	DWG NO. M10003065	ELECTRONIC FILE SD43-100MU	REV A
SCALE: NTS	U.O.M.: mm	SHEET: 3 OF 3	