



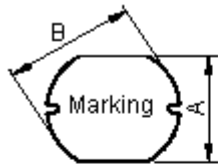
PART NO.

MCSD43-1R0MU

REVISIONS

ECN #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
-	A	RELEASED	Shashi	07/2/11	Jagan	07/2/11	Farnell	21/2/11

Configurations and Dimensions

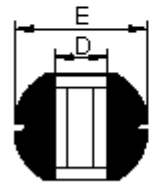


Top View

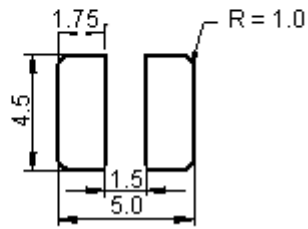


Side View

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	-



Bottom View



Suggest PCB Layout

Dimensions : Millimetres

Marking : 1R0

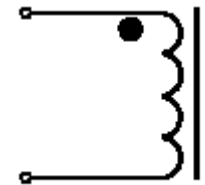
Electrical Characteristics

(at 25 °C)

Test Condition		
100KHz 0.25V	L	1µH ±20%
at 25°C	DCR	49mΩ (Maximum)
100KHz 0.25V Isat = 3A	L at Isat	L drops 10% (Typical)

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

Schematic Diagram



Note:

- Wire Ø0.35mm x 1P 2UEWF 155°C
- 6.5TS (Reference)

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	4.49	3.3	1.5	4.35
2	4.05	4.53	3.29	1.48	4.34
3	3.99	4.46	3.26	1.55	4.28
4	4	4.48	3.28	1.52	4.3
5	4.04	4.54	3.27	1.38	4.36
Average	4.02	4.5	3.28	1.49	4.33

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DRAWN BY:

Shashi

DATE:

07/02/11

DRAWING TITLE:

Inductor

CHECKED BY:

Jagan

DATE:

07/02/11

APPROVED BY:

Farnell

DATE:

21/02/11

SIZE A DWG NO.

M10002652

ELECTRONIC FILE

SD43-1R0MU

REV

A

SCALE: NTS

U.O.M.: mm

SHEET: 1 OF 3



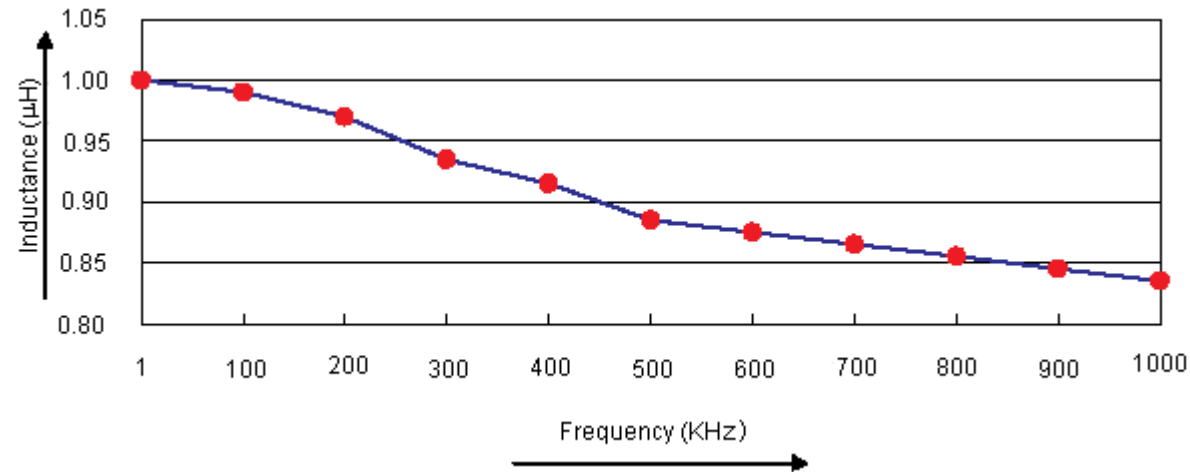
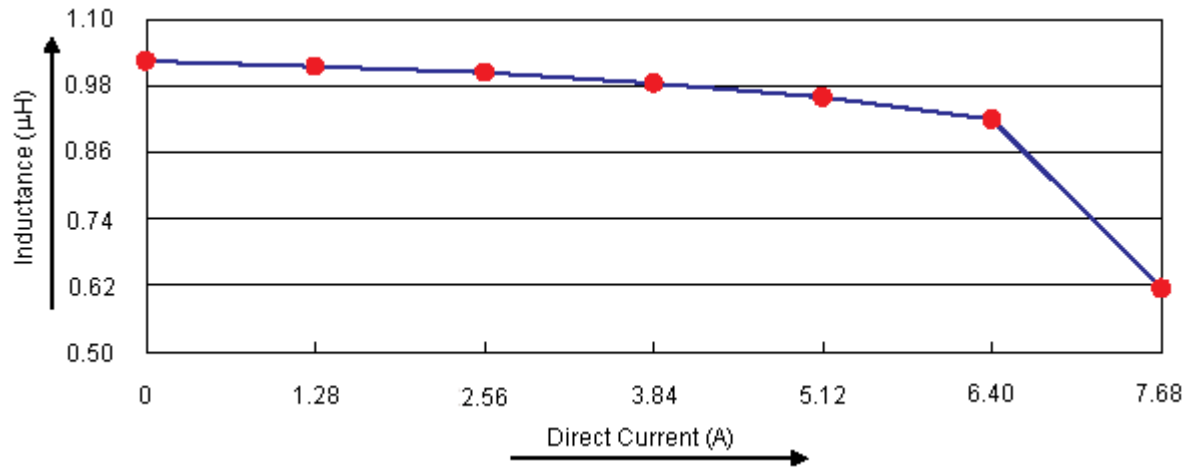
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Electric Characteristics



Test Data for Electrical

Test Item	L µH	DCR mΩ	L at Isat µH
Condition	100KHz 0.25V	at 25°C	100KHz 0.25 Isat = 3A
Specification	1 ±20%	49 (Maximum)	L drops 10% (Typical)
1	1.01	13.35	0.99
2	1.02	14.14	1
3		13.75	1.01
4		13.35	1
5	0.99	13.95	0.98
Average	1.01	13.708	1

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Jagan	07/02/11
APPROVED BY:	DATE:
Farnell	21/02/11

DRAWING TITLE:

Inductor

SIZE A	DWG NO. M10002652	ELECTRONIC FILE SD43-1R0MU	REV A
SCALE: NTS		U.O.M.: mm	SHEET: 2 OF 3



PART NO.

MCSD43-1R0MU

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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 CDR4.5 x 3.2 (ST) B2 F1.5
2	Wire	Ø0.35mm x 1P 2UEWF 155°C
3	Solder (Lead Free)	Sn99.3%/ Cu0.7%

Part Number Table

Description	Part Number
Inductor, 1µH, 20%, 3.8A	MCSD43-1R0MU

<http://www.farnell.com>

<http://www.newark.com>

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

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Farnell	21/02/11

DRAWING TITLE:

Inductor

SIZE A	DWG NO. M10002652	ELECTRONIC FILE SD43-1R0MU	REV A
SCALE: NTS		U.O.M.: mm	SHEET: 3 OF 3