



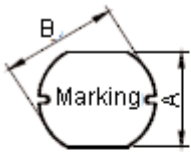
PART NO.

MCS54-101KU

REVISIONS

ECN #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
-	A	RELEASED	Ashok	16/2/11	Jagan	16/2/11	Farnell	02/3/11

Configurations and Dimensions



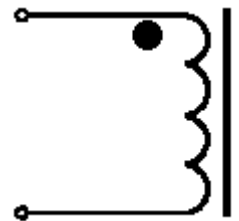
Top View



Side View

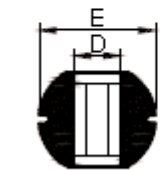
A	5.2 ±0.3 mm	-
B	5.8 ±0.3 mm	-
C	4.5 ±0.35 mm	-
D	2 mm	Reference
E	5.8 ±0.5 mm	-

Schematic Diagram

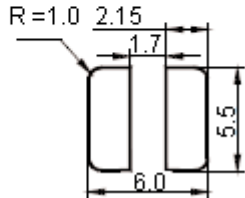


Note:

- (1) Wire Ø0.16mm x 1P 2UEWF 155°C
- (2) 59.5TS (Reference)



Bottom View



Suggest PCB Layout

Dimensions : Millimetres

Marking: 101

Electrical Characteristics

(at 25°C)

Test condition		
100KHz 0.25V	L	100µH ±10%
at 25°C	DCR	0.7Ω (Maximum)
100KHz 0.25V I _{rms} = 0.52A	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	E mm
Specification	5.2 ±0.3	5.8 ±0.3	4.5 ±0.35	2 (Reference)	5.8 ±0.5
1	5.29	5.92	4.58	1.89	5.71
2	5.3	5.97	4.62	1.81	5.72
3	5.28	5.99	4.61	1.87	5.72
4	5.33	6.01	4.61	1.84	5.71
5	5.37	5.98	4.62	1.89	5.7
Average	5.31	5.97	4.61	1.86	5.71

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DRAWN BY:	DATE:
Ashok	16/02/11
CHECKED BY:	DATE:
Jagan	16/02/11
APPROVED BY:	DATE:
Farnell	02/03/11

DRAWING TITLE:

Inductor

SIZE A	DWG NO. M10003460	ELECTRONIC FILE SD54-101KU	REV A
SCALE: NTS	U.O.M.: mm	SHEET: 1 OF 3	



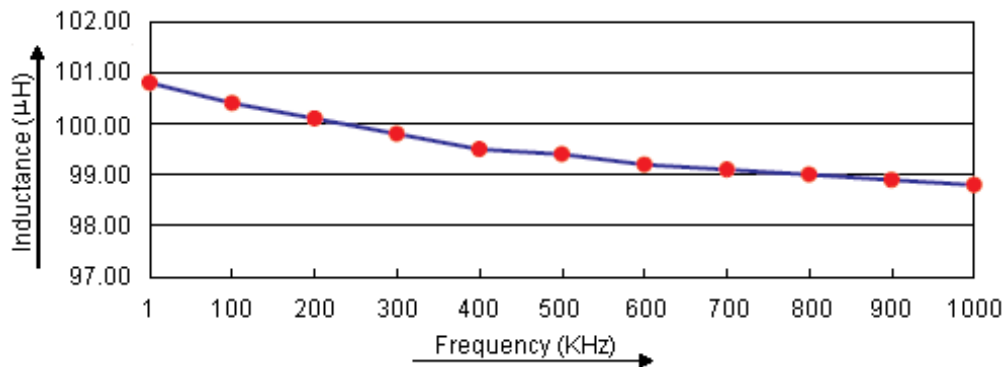
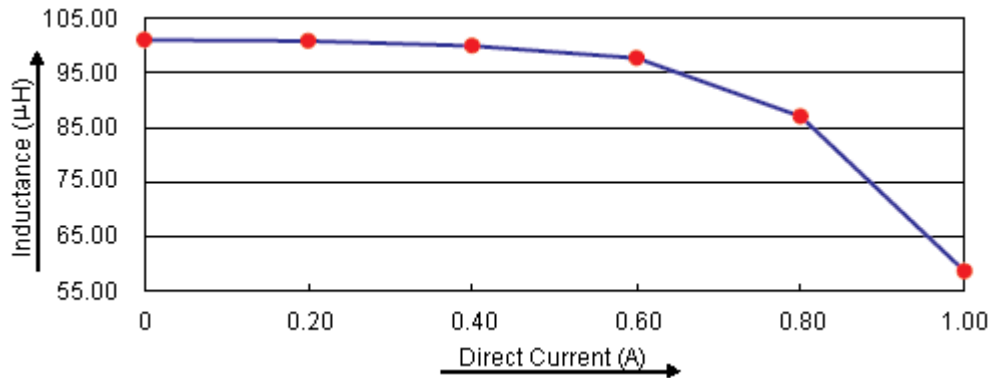
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Electric Characteristics



Test Data for Electrical

Test Item	L μH	DCR Ω	ΔT
Condition	100KHz 0.25V	at 25°C	100KHz 0.25V I _{rms} = 0.52A
Specification	100 ±10%	0.7 (Maximum)	Temperature Rise 40°C (Maximum)
1	100.12	0.497	OK
2	102.01	0.513	OK
3	101.63	0.513	OK
4	98.48	0.51	OK
5	98.14	0.509	OK
Average	100.08	0.51	OK

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APPROVED BY:	DATE:
Farnell	02/03/11

DRAWING TITLE:			
Inductor			
SIZE A	DWG NO. M10003460	ELECTRONIC FILE SD54-101KU	REV A
SCALE: NTS	U.O.M.: mm	SHEET: 2 OF 3	



PART NO.

MCS54-101KU

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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 CDR5.8 x 4.5(ST) B2.4 F2.3
2	Wire	Ø0.16mm x 1P 2UEWF 155°C
3	Solder (Lead Free)	Sn99.3% / Cu0.7%

Part Number Table

Description	Part Number
Inductor, 100µH, 520mA, 10%	MCS54-101KU

<http://www.farnell.com>

<http://www.newark.com>

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

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DRAWING TITLE:			
Inductor			
SIZE	DWG NO.	ELECTRONIC FILE	REV
A	M10003460	SD54-101KU	A
SCALE: NTS	U.O.M.: mm	SHEET: 3 OF 3	