



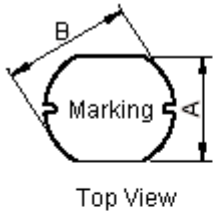
PART NO.

MCSD105-121KU

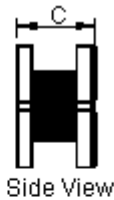
REVISIONS

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

Configurations and Dimensions



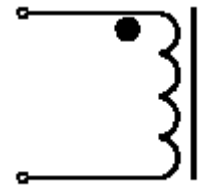
Top View



Side View

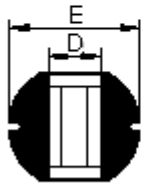
A	9 ±0.4 mm	-
B	10 ±0.4 mm	-
C	5.4 ±0.5 mm	-
D	3.5 mm	(Reference)
E	10.2 ±0.5 mm	-

Schematic Diagram

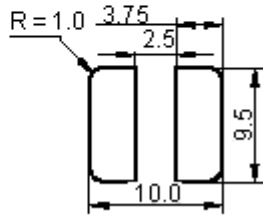


Note:

1. Wire Ø0.3mm x 1P 2UEWF 155°C
2. 47.5TS (Reference)



Bottom View



Suggest PCB Layout

Dimensions : Millimetres

Marking : 121
YYWW

YY : Year
WW : Week

Electrical Characteristics

(25°C)

Test Condition		
100KHz 0.25V	L	120µH ±10%
at 25°C	DCR	0.4Ω (Maximum)
100KHz 0.25V I _{rms} = 0.89A	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	9 ±0.4	10 ±0.4	5.4 ±0.5	3.5 (Reference)	10.2 ±0.5
1	9.01	10.1	5.63	3.42	9.79
2	9.02	10.07	5.56	3.9	9.82
3	9.05	10.21	5.58	3.5	9.7
4	9.08	10.23	5.56	3.26	9.83
5	9.18	10.11	5.6	3.89	9.9
Average	9.07	10.14	5.59	3.59	9.81

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DRAWN BY:

sidhu

DATE:

09/02/11

CHECKED BY:

Jagan

DATE:

09/02/11

APPROVED BY:

Farnell

DATE:

23/02/11

DRAWING TITLE:

Inductor

SIZE
A

DWG NO.

M10002624

ELECTRONIC FILE
SD105-121KU

REV
A

SCALE: NTS

U.O.M.: mm

SHEET: 1 OF 3



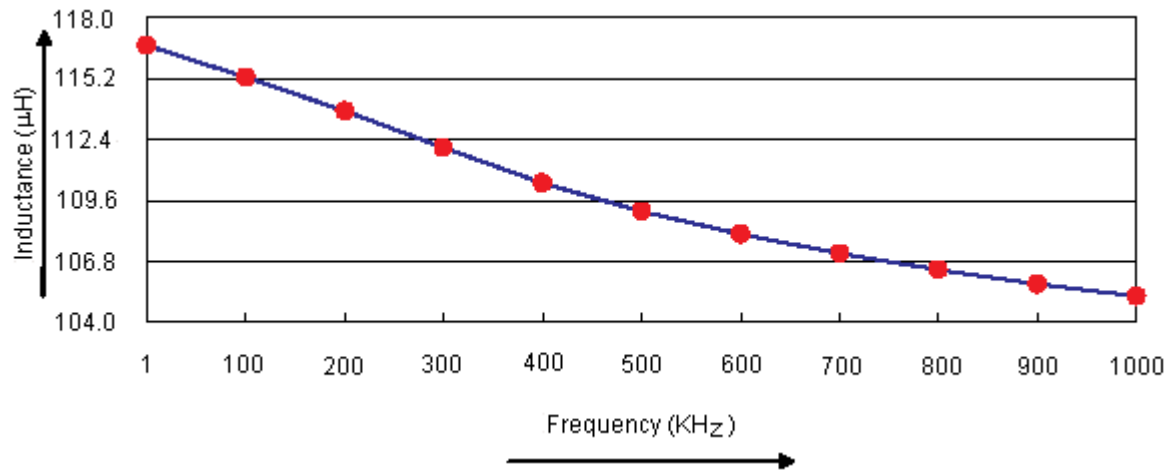
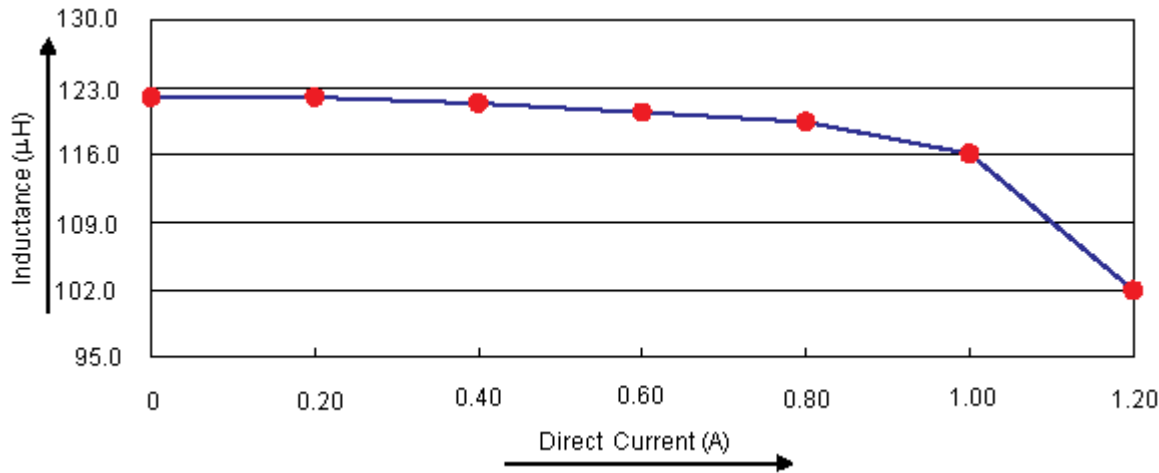
PART NO.

MCSD105-121KU

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-	A	RELEASED	Sidhu	09/2/11	Jagan	09/2/11	Farnell	23/2/11

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} = 0.89A
Specification	120 ±10%	0.4 (Maximum)	Temperature rise 40°C(Maximum)
1	121.4	0.224	OK
2	122.62	0.225	OK
3	122.99	0.227	OK
4	122.94	0.229	OK
5	122.47	0.226	OK
Average	122.484	0.23	OK

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

DRAWING TITLE:

Inductor

SIZE A	DWG NO. M10002624	ELECTRONIC FILE SD105-121KU	REV A
SCALE: NTS		U.O.M.: mm	SHEET: 2 OF 3



PART NO.

MCS D105-121KU

REVISIONS

ECN #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
-	A	RELEASED	Sidhu	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 CDR10 x 5.4 (ST) B3.8 F2.6
2	Wire	Ø0.3mm x 1P 2UEWF 155°C
3	Solder (Lead Free)	99.3%Sn0.7%Cu

Part Number Table

Description	Part Number
Inductor, 120µH, 890mA, 10%	MCS D105-121KU

<http://www.farnell.com>

<http://www.newark.com>

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

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APPROVED BY:	DATE:
Farnell	23/02/11

DRAWING TITLE:			
Inductor			
SIZE	DWG NO.	ELECTRONIC FILE	REV
A	M10002624	SD105-121KU	A
SCALE: NTS		U.O.M.: mm	SHEET: 3 OF 3