



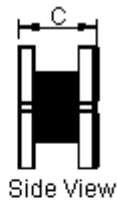
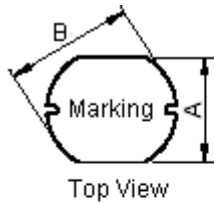
PART NO.

MCSD105-390MU

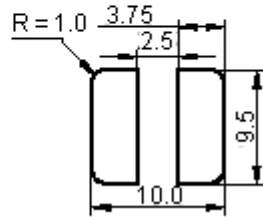
REVISIONS

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



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	-



Dimensions : Millimetres

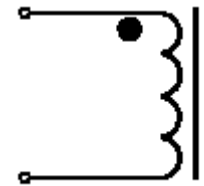
Marking : 390 YY : Year
YYWW WW : Week

Electrical Characteristics (at 25°C)

Test Condition		
100KHz 0.25V	L	39µH ±20%
at 25°C	DCR	140mΩ (Maximum)
100KHz 0.25V I _{rms} = 1.5A	ΔT	Temperature rise 40°C (Maximum)

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

Schematic Diagram



Note:

1. Wire Ø0.35mm x 1P 2UEWF 155°C
2. 26.5TS (Reference)

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	10.01	5.57	3.52	9.83
2	9.05	10.03	5.62	3.64	9.81
3		9.98	5.59	3.63	9.89
4	9.03	9.94	5.56	3.17	9.83
5	9.01	9.96	5.6	3.25	9.89
Average	9.03	9.98	5.59	3.44	9.85

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Jagan	09/02/11
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Farnell	23/02/11

DRAWING TITLE:

Inductor

SIZE A	DWG NO. M10002618	ELECTRONIC FILE SD105-390MU	REV A
SCALE: NTS		U.O.M.: mm	SHEET: 1 OF 3



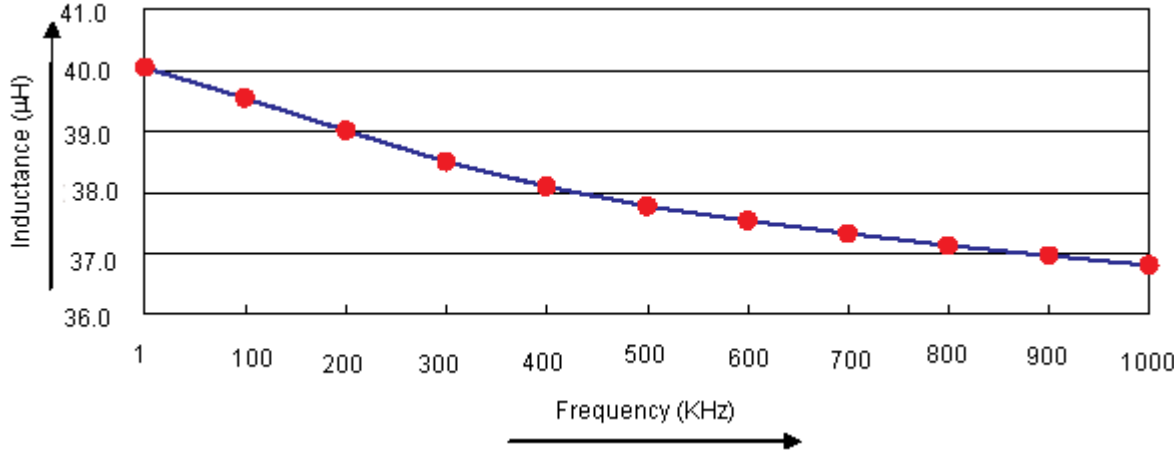
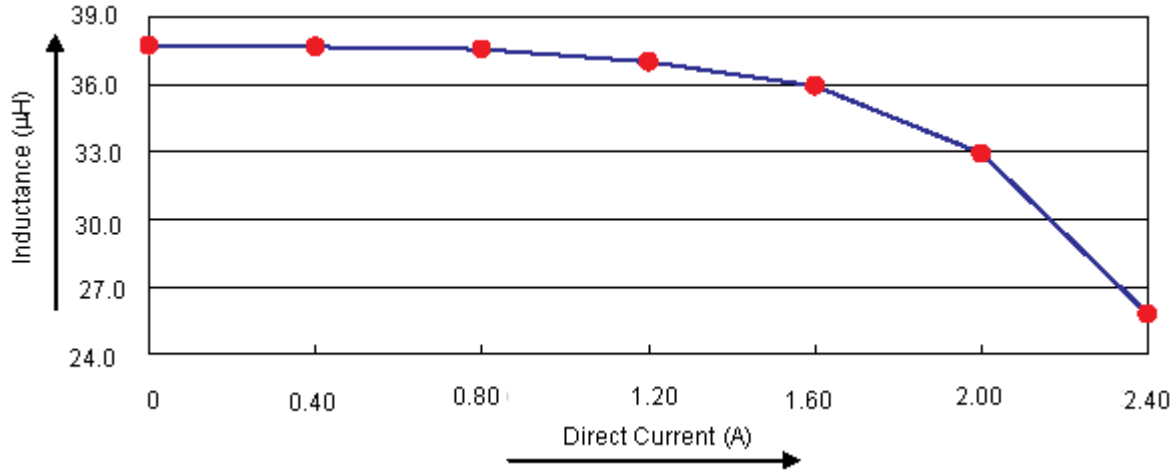
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Electric Characteristics



Test Data for Electrical

Test Item	L µH	DCR mΩ	ΔT
Condition	100KHz 0.25V	at 25°C	100KHz 0.25V I _{rms} = 1.37A
Specification	39 ±20%	140 (Maximum)	temperature rise 40°C(Maximum)
1	38.02	82.01	OK
2	37.48	82.26	OK
3	37.74	83.13	OK
4	37.68	82.36	OK
5	37.62	82.19	OK
Average	37.708	82.39	OK

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DRAWING TITLE:

Inductor

SIZE A	DWG NO. M10002618	ELECTRONIC FILE SD105-390MU	REV A
SCALE: NTS		U.O.M.: mm	SHEET: 2 OF 3



PART NO.

MCS D105-390MU

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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 CDR10 x 5.4 (ST) B3.8 F2.6
2	Wire	Ø0.35mm x 1P 2UEWF 155°C
3	Solder (Lead Free)	99.3%Sn0.7%Cu

Part Number Table

Description	Part Number
Inductor, 39µH, 20%, 2pins	MCS D105-390MU

<http://www.farnell.com>

<http://www.newark.com>

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

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Inductor			
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A	M10002618	SD105-390MU	A
SCALE: NTS		U.O.M.: mm	SHEET: 3 OF 3