



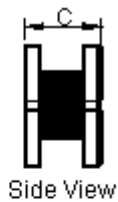
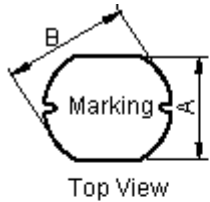
PART NO.

MCS75-680KU

REVISIONS

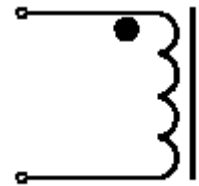
ECN #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
-	A	RELEASED	Arun	10/2/11	Jagan	10/2/11	Farnell	24/2/11

Configurations and Dimensions



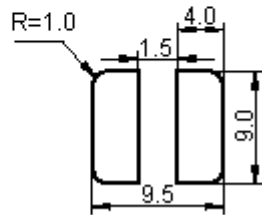
A	7 ±0.3 mm	-
B	7.8 ±0.3 mm	-
C	5 ±0.5 mm	-
D	3 mm	(Reference)
E	8 ±0.5 mm	-

Schematic Diagram



Note:

- (1) Wire Ø0.25mm x 1P 2UEWF 155°C
- (2) 40.5TS (Reference)



Suggest PCB Layout

Dimensions : Millimetres

Marking : 680

Electrical Characteristics

(at 25°C)

Test Condition		
100KHz 0.25V	L	68µH ±10%
at 25°C	DCR	280mΩ (Maximum)
100KHz 0.25V I _{rms} = 0.85A	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	7 ±0.3	7.8 ±0.3	5 ±0.5	3 (Reference)	8 ±0.5
1	7.03	7.83	5.03	2.37	7.8
2	7	7.81	5.04	2.51	7.69
3		7.8	5.03	2.5	7.87
4	7.02	7.82	5.06	2.57	7.8
5	7	7.8	5.04	2.34	7.76
Average	7.01	7.81	5.04	2.46	7.78

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DRAWN BY:

Arun

CHECKED BY:

Jagan

APPROVED BY:

Farnell

DATE:

10/02/11

DATE:

10/02/11

DATE:

24/02/11

DRAWING TITLE:

Inductor

SIZE
A

DWG NO.

M10003032

ELECTRONIC FILE
SD75-680KU

REV
A

SCALE: NTS

U.O.M.: mm

SHEET: 1 OF 3



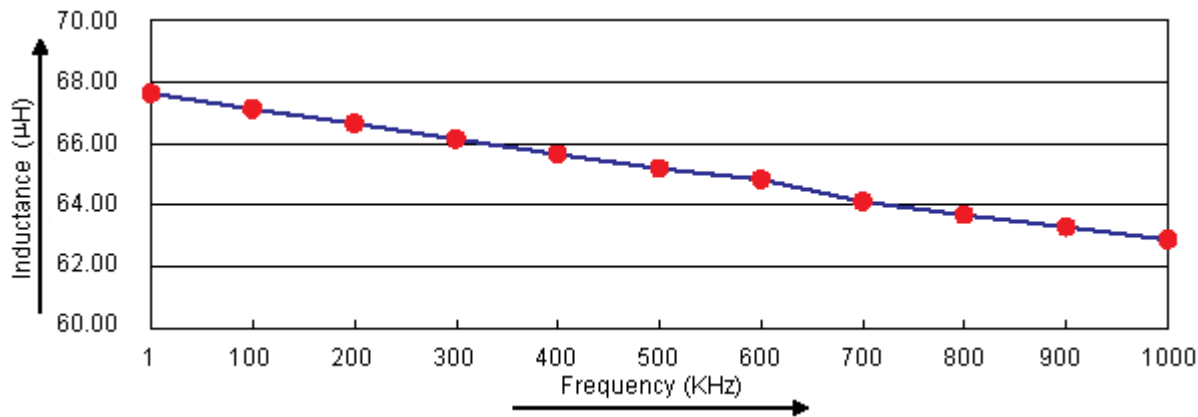
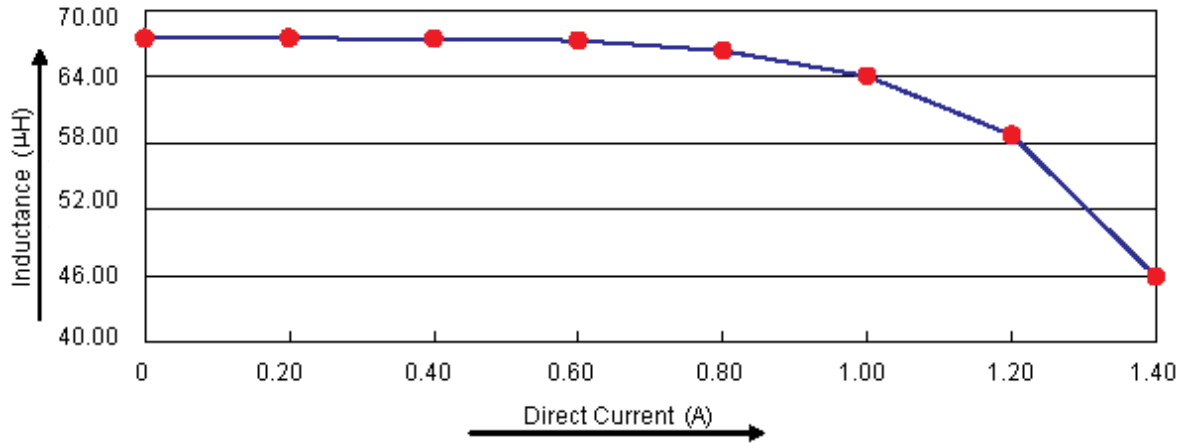
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Electric Characteristics



Test Data for Electrical

Test Item	L µH	DCR mΩ	ΔT
Condition	100KHz 0.25V	at 25°C	100KHz 0.25V I _{rms} = 0.85A
Specification	68 ±10%	280 (Maximum)	Temperature Rise 40°C (Maximum)
1	69.6	216	OK
2	70	218	OK
3	69.4	217	OK
4	69.6	221	OK
5	68.9	218	OK
Average	69.5	218	OK

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Jagan	10/02/11
APPROVED BY:	DATE:
Farnell	24/02/11

DRAWING TITLE:

Inductor

SIZE A	DWG NO. M10003032	ELECTRONIC FILE SD75-680KU	REV A
SCALE: NTS		U.O.M.: mm	SHEET: 2 OF 3



PART NO.

MCS75-680KU

REVISIONS

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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 CDR7.8 x 5 (ST) B2.9 F2.5
2	Wire	Ø0.25mm x 1P 2UEWF 155°C
3	Solder (Lead Free)	Sn99.3% / Cu0.7%

Part Number Table

Description	Part Number
Inductor, 68µH, 850mA, 10%	MCS75-680KU

<http://www.farnell.com>

<http://www.newark.com>

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

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Inductor

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SCALE: NTS	U.O.M.: mm	SHEET: 3 OF 3	