



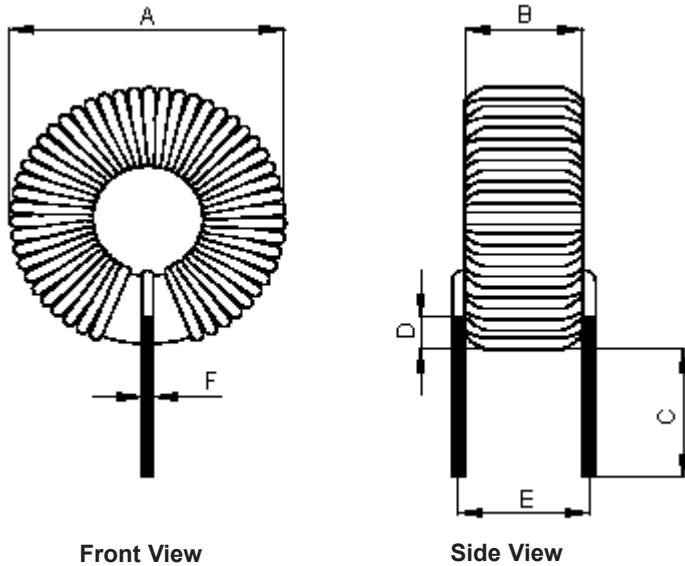
PART NO.

MCAP103726044A-680MU

REVISIONS

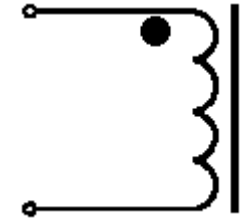
ECN #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
-	A	RELEASED	ASH	20/4/11	SHA	20/4/11		04/5/11

Configurations and Dimensions



A	12 mm	(Max.)
B	5.5 mm	(Max.)
C	15 ±2 mm	-
D	1 mm	(Min.)
E	4.5 ±2 mm	-
F	Ø0.4 mm	(Ref.)

Schematic Diagram



Note:

1. Wire UEFN/U (155°C) Ø0.4mm
2. 50TS (Reference) C.W

Electrical Characteristics

Test Condition		
10 KHz / 5 mA	L	68 µH ±20%
T <sub>a</sub> = 25°C	DCR	100 mΩ (Max.)
10 KHz / 5 mA I <sub>rms</sub> = 0.8 A	ΔT	Temperature rise 40°C (Max.)

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

Test Data for Mechanical

Test Item	A mm	B mm	C mm	D mm	E mm	F mm
Specification	12 (Max.)	5.5 (Max.)	15 ±2	1 (Min.)	4.5 ±2	Ø0.4 (Ref.)
1	10.6	4.68	14.78	1.38	4.42	0.38
2	10.61	4.67	15.23	1.32	4.31	0.39
3	10.64	4.63	14.79	1.41	4.33	
4	10.69	4.62	15.03	1.33	4.36	0.37
5	10.67	4.61	14.98	1.32	4.37	
<b>Average</b>	<b>10.64</b>	<b>4.64</b>	<b>14.96</b>	<b>1.35</b>	<b>4.36</b>	<b>0.38</b>

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	04/05/11

DRAWING TITLE:

**Inductor**

SIZE <b>A</b>	DWG NO. <b>M10002632</b>	ELECTRONIC FILE MCAP103726044A-680MU	REV <b>A</b>
SCALE: NTS		U.O.M.: mm	SHEET: 1 OF 3



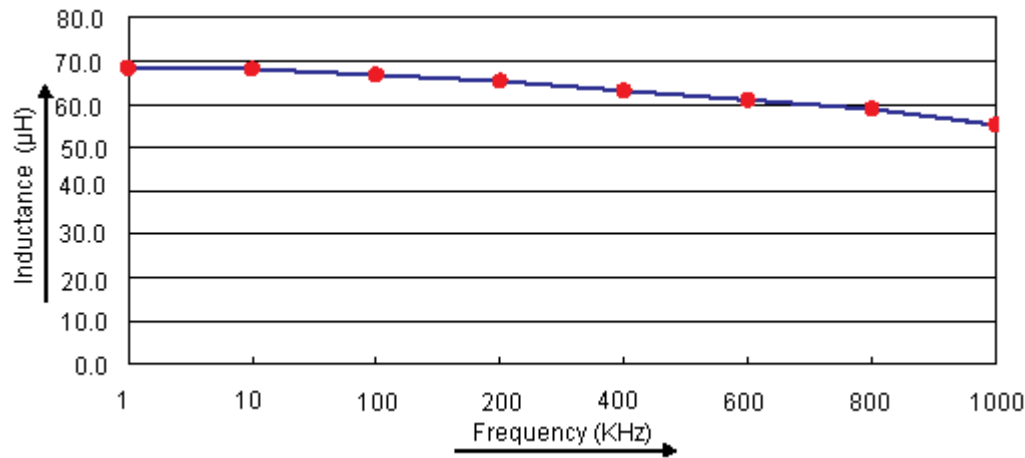
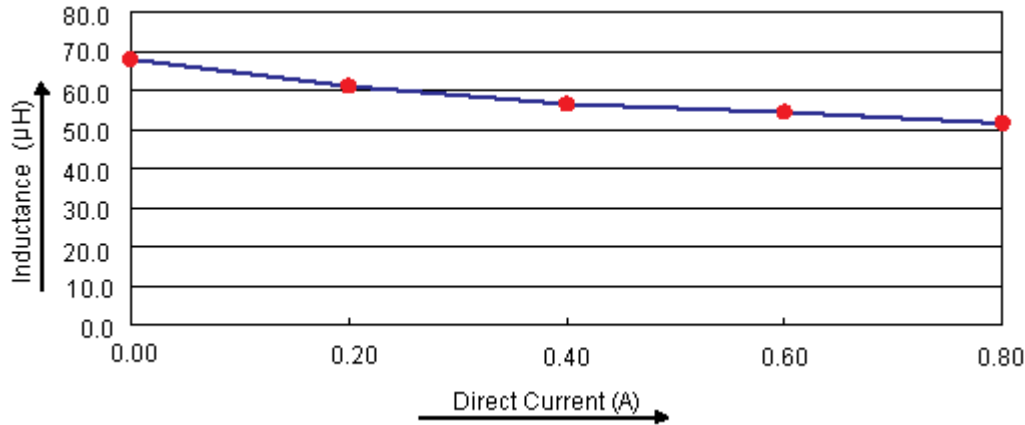
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Electric Characteristics



Test Data for Electrical

Test Item	L µH	DCR mΩ	ΔT
Condition	10 KHz / 5 mA	T <sub>a</sub> = 25°C	10 KHz / 5 mA I <sub>rms</sub> = 0.8 A
Specification	68 ±20%	100 (Max.)	Temperature rise 40°C (Max.)
1	67.23	90.34	OK
2	67.38	91.25	
3	68.37	90.47	
4	67.79	90.68	
5	67.58	90.69	
Average	67.67	90.69	OK

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PART NO.

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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 ±5% Inductance change : Within ±5%	According to J-STD-020B level 3 Test condition : 60°C 60% RH Test duration : 40 hrs 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 95% of the surface area of any individual lead.	According to J-STD-002B Steam aging category : 97°C 98% RH Steam aging duration : 8 hrs Solder : Lead-free solder Solder temperature : 260 ±5°C Dip time : 5 +0 / -0.5 s

Material List

No.	Item	Material Description
1	Core	T37-75-TAF200 (Red / White)
2	Wire	Ø0.4 mm UEFN/U (155°C)
3	Solder (Lead-free)	Sn99.3% / Cu0.7%

Part Number Table

Description	Part Number
Inductor, 68µH, 20%, 2 Pins	MCAP103726044A-680MU

<http://www.element14.com>

<http://www.farnell.com>

<http://www.newark.com>

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