



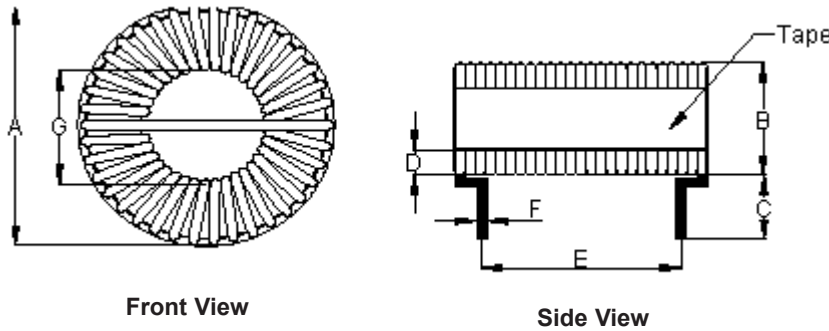
PART NO.

MCAP109020040K-101MU

REVISIONS

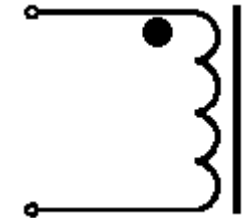
ECN #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
-	A	RELEASED	SHA	20/4/11	SID	20/4/11		04/5/11

Configurations and Dimensions



A	27 mm	(Max.)
B	16.6 mm	(Max.)
C	10 ±3 mm	-
D	0 mm	(Min.)
E	21.8 ±2 mm	-
F	∅0.8 mm	(Ref.)
G	8.8 mm	(Min.)

Schematic Diagram



Note:

1. Wire UEFN/U (155°C) ∅0.8mm
2. 40TS (Reference) C.W

Electrical Characteristics

Test Condition		
10 KHz / 0.25 V	L	100 µH ±20%
T <sub>a</sub> = 25°C	DCR	65 mΩ (Max.)
10 KHz / 0.25 V I <sub>rms</sub> = 4.3 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	G mm
Specification	27 (Max.)	16.6 (Max.)	10 ±3	0 (Min.)	21.8 ±2	∅0.8 (Ref.)	8.8 (Min.)
1	25.75	11.58	10.18	0.23	22.1	0.8	11.75
2	25.65	11.48	10.22	0.26	21.91	0.79	11.55
3	25.51	11.5	10.61	0.34	22.13	0.81	11.68
4	25.77	11.54	10.46	0.16	22.16	0.8	11.24
5	25.6	11.61	10.53	0.2	21.96	0.79	11.3
Average	25.66	11.54	10.4	0.24	22.05	0.8	11.5

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DATE:

20/04/11

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20/04/11

DATE:

04/05/11

DRAWING TITLE:

Inductor

SIZE  
A

DWG NO.

M10002641

ELECTRONIC FILE

MCAP109020040K-101MU

REV

A

SCALE: NTS

U.O.M.: mm

SHEET: 1 OF 3



PART NO.

MCAP109020040K-101MU

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Test Data for Electrical

Test Item	L μH	DCR mΩ	ΔT
Condition	10 KHz / 0.25 V	T <sub>a</sub> = 25°C	10 KHz / 0.25 V I <sub>rms</sub> = 4.3 A
Specification	100 ±20%	65 (Max.)	Temperature rise 40°C (Max.)
1	99.04	45.02	OK
2	97.7	45.15	
3	100.89	44.94	
4	100.67	45.13	
5	101.71	45.41	
Average	100	45.13	OK

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

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DRAWING TITLE:

**Inductor**

SIZE <b>A</b>	DWG NO. <b>M10002641</b>	ELECTRONIC FILE MCAP109020040K-101MU	REV <b>A</b>
SCALE: NTS	U.O.M.: mm	SHEET: 2 OF 3	



PART NO.

MCAP109020040K-101MU

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ECN #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
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Material List

No	Item	Material Description
1	Core	T90-75H-TAF200 (Green / Blue)
2	Wire	Ø0.8 mm UEFN/U (155°C)
3	Solder (Lead-free)	Sn99.3% / Cu0.7%
4	Tape	9 mm (W) × 2TS Yellow Mylar

Part Number Table

Description	Part Number
Inductor, 100µH, 20%, 2 Pins	MCAP109020040K-101MU

<http://www.element14.com>

<http://www.farnell.com>

<http://www.newark.com>

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**Inductor**

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DWG NO.

**M10002641**

ELECTRONIC FILE  
MCAP109020040K-101MU

REV  
**A**

SCALE: NTS

U.O.M.: mm

SHEET: 3 OF 3