



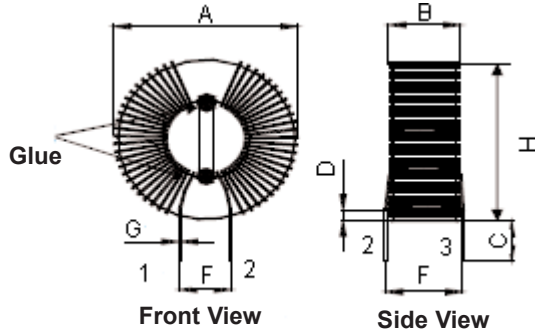
PART NO.

MCT18X10X10C-103NU

REVISIONS

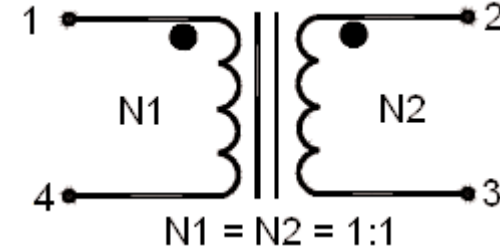
ECN #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
-	A	RELEASED	SID	20/4/11	BHA	20/4/11		04/5/11

Configurations and Dimensions



A	23 mm	(Max.)
B	13.5 mm	
C	15 ±1 mm	-
D	0 to 4 mm	-
E	7.5 mm	(Ref.)
F	11.5 mm	
G	Ø0.5 mm	(Typ.)
H	23 mm	(Max.)

Schematic Diagram



Note:

1. Wire UEFN/U (155°C) Ø0.5mm
2. N1 = N2 = 35TS (Reference) N1:C.W N2:C.CW

Electrical Characteristics

Test Condition		
10 KHz / 50 µA	L (1-4)	10 mH ±30%
	L (2-3)	
T _a = 25°C	DCR (1-4)	125 mΩ (Max.)
	DCR (2-3)	
	IDC	2 A

Operating temperature : -25°C to +85°C

Test Data for Mechanical

Test Item	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm
Specification	23 (Max.)	13.5 (Max.)	15 ±1	0 to 4	7.5 (Ref.)	11.5 (Ref.)	Ø0.5 (Typ.)	23 (Max.)
1	20.96	12.61	15.17	2.57	7.84	11.6	0.49	20.26
2	20.31	12.53	15.22	2.58	7.74	11.57	0.5	20.33
3	20.34	12.63	15.08	2.62	7.71			20.3
4	20.26	12.58	15.49	2.73	7.4	11.31	0.49	20.27
5	20.05	12.62	14.89	2.8	7.28	11.68		20.15
Average	20.38	12.59	15.17	2.66	7.59	11.55	0.49	20.26

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DATE:

04/5/11

DRAWING TITLE:

Common Mode Choke

SIZE
A

DWG NO.

M10003237

ELECTRONIC FILE
MCT18X10X10C-103NU

REV
A

SCALE: NTS

U.O.M.: mm

SHEET: 1 OF 3



PART NO.

MCT18X10X10C-103NU

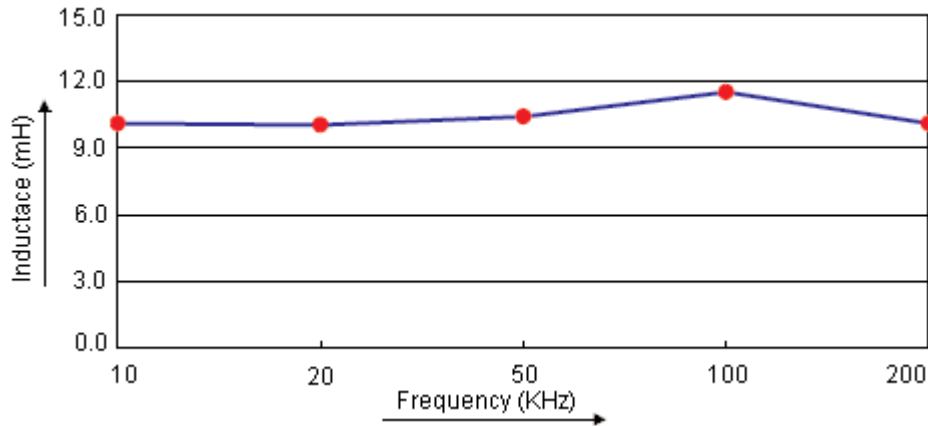
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Test Data for Electrical

Test Item	L (1-4) mH	L (2-3) mH	DCR (1-4) mΩ	DCR (2-3) mΩ
Condition	10 KHz / 50 μA	10 KHz / 50 μA	T _a = 25°C	T _a = 25°C
Specification	10 ±30%	10 ±30%	125 (Max.)	125 (Max.)
1	9.42	9.42	96.66	96.28
2	9.8	9.8	96.69	95.81
3	10.35	10.35	95.66	95.64
4	10.4	10.4	96.76	96.13
5	10.1	10.1	97.82	96.07
Average	10.01	10.01	96.72	95.99

Electric Characteristics



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	04/5/11

DRAWING TITLE:

Common Mode Choke

SIZE	DWG NO.	ELECTRONIC FILE	REV
A	M10003237	MCT18X10X10C-103NU	A
SCALE: NTS	U.O.M.: mm	SHEET: 2 OF 3	



PART NO.

MCT18X10X10C-103NU

REVISIONS

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Reliability Test

Test Item	Specifications	Test Method and Remarks
Operating temperature range	-25°C to +85°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	A07 T18 × 10 × 10C (Red)
2	Wire	Ø0.5 mm UEFN/U (155°C)
3	Solder (Lead-free)	Sn99.3% / Cu0.7%
4	Vernish	T-4260 (a) / TX-111
5	Space	FR4 (thickness 2 mm)
6	Glue	TH100A and TH100B

Part Number Table

Description	Part Number
Choke, Common Mode, 10MH, 2A	MCT18X10X10C-103NU

<http://www.element14.com>

<http://www.farnell.com>

<http://www.newark.com>

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SHEET: 3 OF 3