



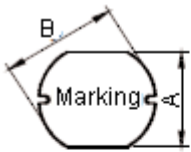
PART NO.

MCS54-470LU

REVISIONS

ECN #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
-	A	RELEASED	Ashok	09/2/11	Jagan	09/2/11	Farnell	23/2/11

Configurations and Dimensions



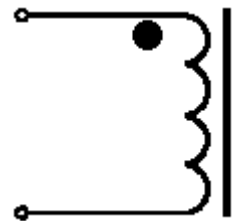
Top View



Side View

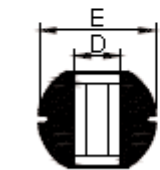
A	5.2 ±0.3 mm	-
B	5.8 ±0.3 mm	-
C	4.5 ±0.35 mm	-
D	2 mm	Reference
E	5.8 ±0.5 mm	-

Schematic Diagram

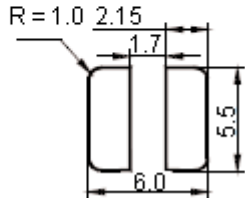


Note:

- (1) Wire Ø0.22mm x 1P 2UEWF 155°C
- (2) 41.5TS (Reference)



Bottom View



Suggest PCB Layout
Dimensions : Millimetres

Marking: 470

Electrical Characteristics

(at 25°C)

Test Condition		
100KHz 0.25V	L	47µH ±15%
at 25°C	DCR	0.37mΩ (Maximum)
100KHz 0.25V I _{rms} = 0.72A	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	5.2 ±0.3	5.8 ±0.3	4.5 ±0.35	2 (Reference)	5.8 ±0.5
1	5.27	5.88	4.57	2.01	5.68
2	5.29	5.79		2.07	5.67
3	5.38	5.84	4.58	2.08	5.71
4	5.42	5.85	4.54	2.05	5.64
5	5.41	5.86	4.57	2.07	5.67
Average	5.35	5.84	4.57	2.06	5.67

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DRAWN BY:

Ashok

DATE:

09/02/11

CHECKED BY:

Jagan

DATE:

09/02/11

APPROVED BY:

Farnell

DATE:

23/02/11

DRAWING TITLE:

Inductor

SIZE
A

DWG NO.

M10003083

ELECTRONIC FILE
SD54-470LU

REV
A

SCALE: NTS

U.O.M.: mm

SHEET: 1 OF 3



PART NO.

MCS54-470LU

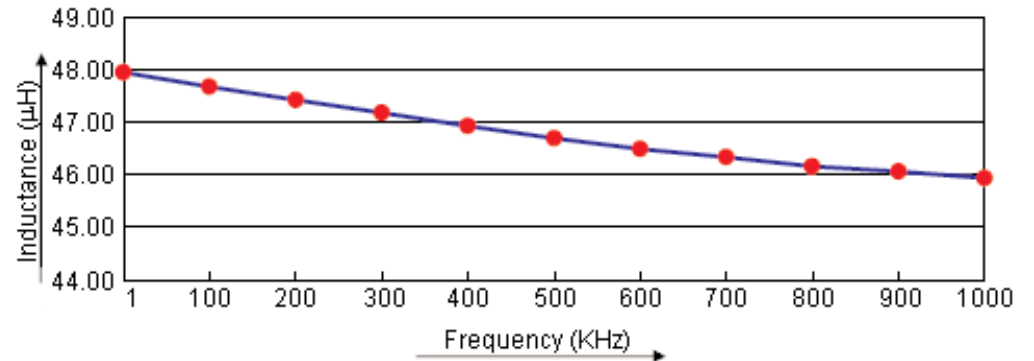
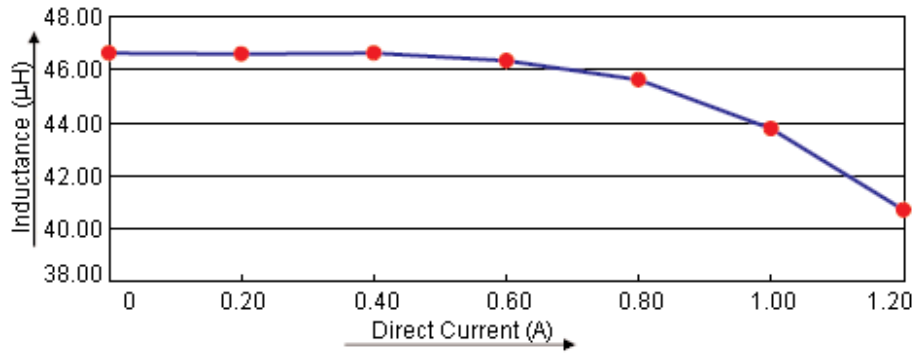
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-	A	RELEASED	Ashok	09/2/11	Jagan	09/2/11	Farnell	23/2/11

Test Data for Electrical

Test Item	L μH	DCR Ω	ΔT
Condition	100KHz 0.25V	at 25°C	100KHz 0.25V I _{rms} = 0.72A
Specification	47 ±15%	0.37 (Maximum)	Temperature Rise 40°C (Maximum)
1	46.76	0.23	OK
2	46.5	0.22	OK
3	50.14	0.23	OK
4	49.2	0.22	OK
5	48.24	0.23	OK
Average	48.17	0.23	OK

Electric Characteristics



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CHECKED BY:	DATE:
Jagan	09/02/11
APPROVED BY:	DATE:
Farnell	23/02/11

DRAWING TITLE:			
Inductor			
SIZE	DWG NO.	ELECTRONIC FILE	REV
A	M10003083	SD54-470LU	A
SCALE: NTS		U.O.M.: mm	SHEET: 2 OF 3



PART NO.

MCS54-470LU

REVISIONS

ECN #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
-	A	RELEASED	Ashok	09/2/11	Jagan	09/2/11	Farnell	23/2/11

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 CDR5.8 x 4.5 (ST) B2.4 F2.3
2	Wire	Ø0.22mm x 1P 2UEWF 155°C
3	Solder (Lead Free)	Sn99.3% / Cu0.7%

Part Number Table

Description	Part Number
Inductor, 47µH, 15%, SMD	MCS54-470LU

<http://www.farnell.com>

<http://www.newark.com>

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

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Jagan	09/02/11
APPROVED BY:	DATE:
Farnell	23/02/11

DRAWING TITLE:

Inductor

SIZE A	DWG NO. M10003083	ELECTRONIC FILE SD54-470LU	REV A
SCALE: NTS		U.O.M.: mm	SHEET: 3 OF 3