



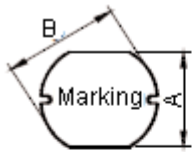
PART NO.

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



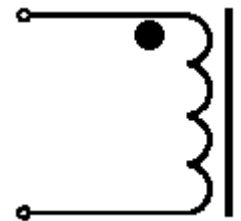
Top View



Side View

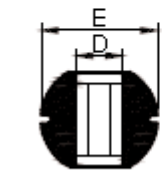
A	5.2 ±0.3 mm	-
B	5.8 ±0.3 mm	-
C	4.5 ±0.35 mm	-
D	2 mm	Reference
E	5.8 ±0.5 mm	-

Schematic Diagram

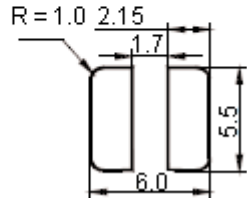


Note:

- (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

This data sheet and its contents (the "Information") belong to the Premier Farnell Group (the "Group") or are licensed to it. No licence is granted for the use of it other than for information purposes in connection with the products to which it relates. No licence of any intellectual property rights is granted. The Information is subject to change without notice and replaces all data sheets previously supplied. The Information supplied is believed to be accurate but the Group assumes no responsibility for its accuracy or completeness, any error in or omission from it or for any use made of it. Users of this data sheet should check for themselves the Information and the suitability of the products for their purpose and not make any assumptions based on information included or omitted. Liability for loss or damage resulting from any reliance on the Information or use of it (including liability resulting from negligence or where the Group was aware of the possibility of such loss or damage arising) is excluded. This will not operate to limit or restrict the Group's liability for death or personal injury resulting from its negligence. SPC MULTICOMP is the registered trademark of the Group. © Premier Farnell plc 2011.

TOLERANCES:

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE FOR REFERENCE PURPOSES ONLY.

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

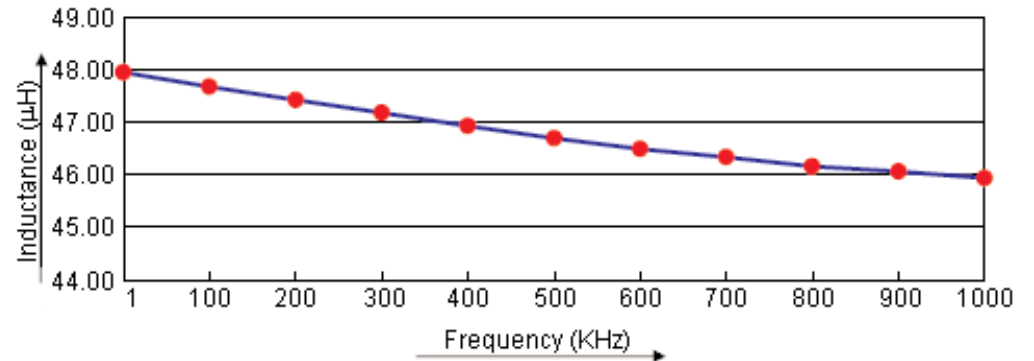
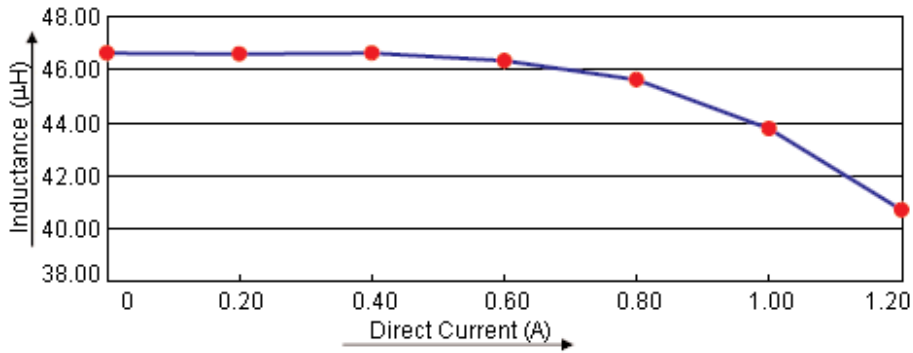
REVISIONS

ECN #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
-	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



This data sheet and its contents (the "Information") belong to the Premier Farnell Group (the "Group") or are licensed to it. No licence is granted for the use of it other than for information purposes in connection with the products to which it relates. No licence of any intellectual property rights is granted. The Information is subject to change without notice and replaces all data sheets previously supplied. The Information supplied is believed to be accurate but the Group assumes no responsibility for its accuracy or completeness, any error in or omission from it or for any use made of it. Users of this data sheet should check for themselves the Information and the suitability of the products for their purpose and not make any assumptions based on information included or omitted. Liability for loss or damage resulting from any reliance on the Information or use of it (including liability resulting from negligence or where the Group was aware of the possibility of such loss or damage arising) is excluded. This will not operate to limit or restrict the Group's liability for death or personal injury resulting from its negligence. SPC MULTICOMP is the registered trademark of the Group. © Premier Farnell plc 2011.

TOLERANCES:
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE FOR REFERENCE PURPOSES ONLY.

DRAWN BY:	DATE:
Ashok	09/02/11
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>

This data sheet and its contents (the "Information") belong to the Premier Farnell Group (the "Group") or are licensed to it. No licence is granted for the use of it other than for information purposes in connection with the products to which it relates. No licence of any intellectual property rights is granted. The Information is subject to change without notice and replaces all data sheets previously supplied. The Information supplied is believed to be accurate but the Group assumes no responsibility for its accuracy or completeness, any error in or omission from it or for any use made of it. Users of this data sheet should check for themselves the Information and the suitability of the products for their purpose and not make any assumptions based on information included or omitted. Liability for loss or damage resulting from any reliance on the Information or use of it (including liability resulting from negligence or where the Group was aware of the possibility of such loss or damage arising) is excluded. This will not operate to limit or restrict the Group's liability for death or personal injury resulting from its negligence. SPC MULTICOMP is the registered trademark of the Group. © Premier Farnell plc 2011.

TOLERANCES:

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE FOR REFERENCE PURPOSES ONLY.

DRAWN BY:	DATE:
Ashok	09/02/11
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: 3 OF 3