



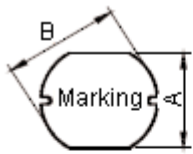
PART NO.

MCSD54-4R7MU

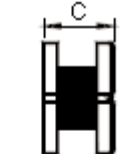
REVISIONS

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

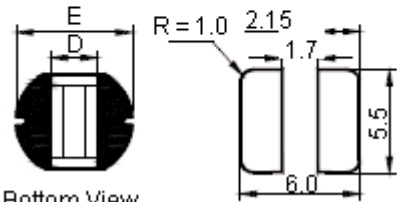


Top View



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	-



Bottom View

Suggest PCB Layout

Dimensions : Millimetres

Marking: 4R7

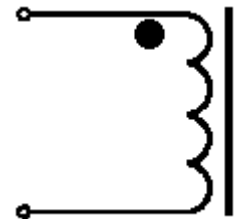
Electrical Characteristics

(at 25°C)

Test condition		
100KHz 0.25V	L	4.7µH ±20%
at 25°C	DCR	71mΩ (Maximum)
100KHz 0.25V I _{rms} = 3.6A	ΔT	Temperature Rise 40°C (Maximum)

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

Schematic Diagram



Note:

- (1) Wire Ø0.27mm x 1P 2UEWF 155°C
- (2) 13.5TS (Reference)



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	5.92	4.57	1.98	5.95
2	5.23	5.87	4.56	2.01	5.77
3	5.3	5.85	4.56	2	5.77
4	5.31	5.88	4.59	2.01	5.78
5	5.29	5.86	4.54	1.99	5.85
Average	5.28	5.88	4.56	2	5.82

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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.

M10003074

ELECTRONIC FILE

SD54-4R7MU

REV

A

SCALE: NTS

U.O.M.: mm

SHEET: 1 OF 3



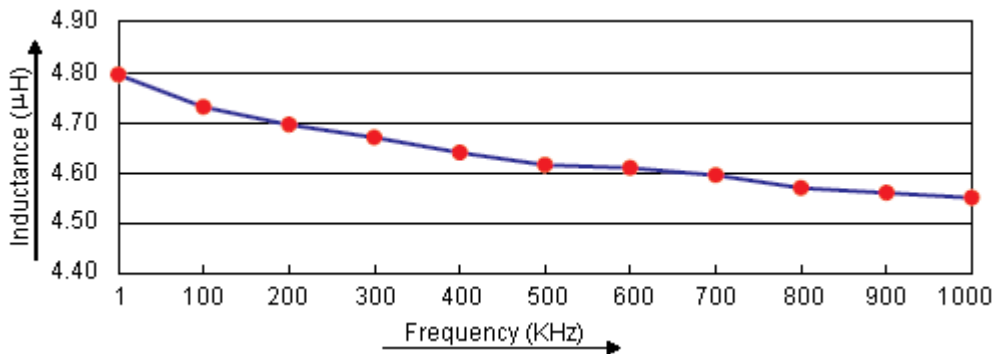
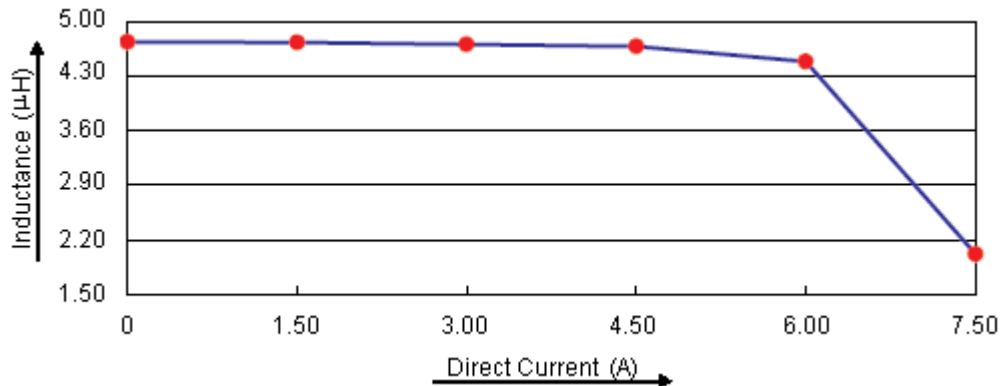
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Electric Characteristics



Test Data for Electrical

Test Item	L μH	DCR mΩ	ΔT
Condition	100KHz 0.25V	at 25°C	100KHz 0.25V I _{rms} = 3.6A
Specification	4.7 ±20%	71 (Maximum)	Temperature Rise 40°C (Maximum)
1	4.79	55.98	OK
2	4.85	55.38	OK
3	4.9	55.5	OK
4	4.81	55.78	OK
5	4.86	55.66	OK
Average	4.84	55.66	OK

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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 $\pm 20\%$ Inductance change : Within $\pm 20\%$	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 $\pm 5^\circ\text{C}$ Dip time : 5 +0/-0.5 seconds.

Material List

No.	Item	Material Description
1	Core	R5A CDR5.8 x 4.5(ST) B3.5 F2.3
2	Wire	$\varnothing 0.27\text{mm}$ x 1P 2UEWF 155°C
3	Solder (Lead Free)	Sn99.3% / Cu0.7%

Part Number Table

Description	Part Number
Inductor, 4.7 μH , 2.8A, 20%	MCSD54-4R7MU

<http://www.farnell.com><http://www.newark.com><http://www.cpc.co.uk>

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SHEET: 3 OF 3