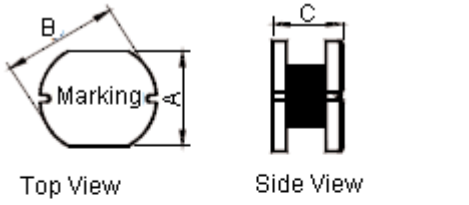
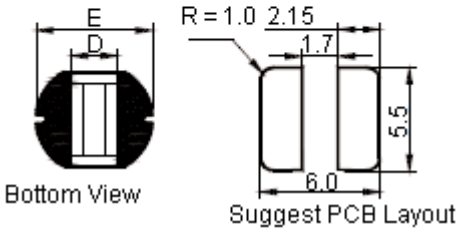
PART NO.	REVISIONS								
MCSD54-180MU	ECN #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
	-	A	RELEASED	Ashok	09/2/11	Jagan	09/2/11	Farnell	23/2/11

Configurations and Dimensions



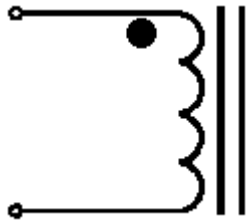


Dimensions : Millimetres

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	-

Marking: 180

Schematic Diagram



Note:

(1) Wire Ø0.28mm x 1P 2UEWF 155°C
(2) 25.5TS (Reference)

RoHS Compliant

Electrical Characteristics (at 25°C)

Test condition		
100KHz 0.25V	L	18µH ±20%
at 25°C	DCR	150mΩ (Maximum)
100KHz 0.25V I_{rms} = 1.23A	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	5.29	5.86	4.56	2.03	5.69
2	5.31	5.84	4.54	2.04	5.66
3	5.27	5.83	4.56	2.01	5.68
4	5.29	5.88	4.55	2.03	5.67
5	5.26	5.83	4.56	1.99	5.68
Average	**5.28**	**5.85**	**4.55**	**2.02**	**5.68**

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

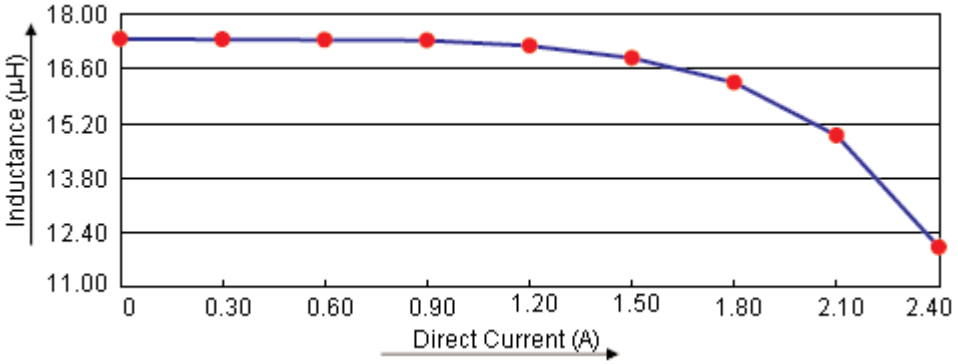
DRAWING TITLE: Inductor

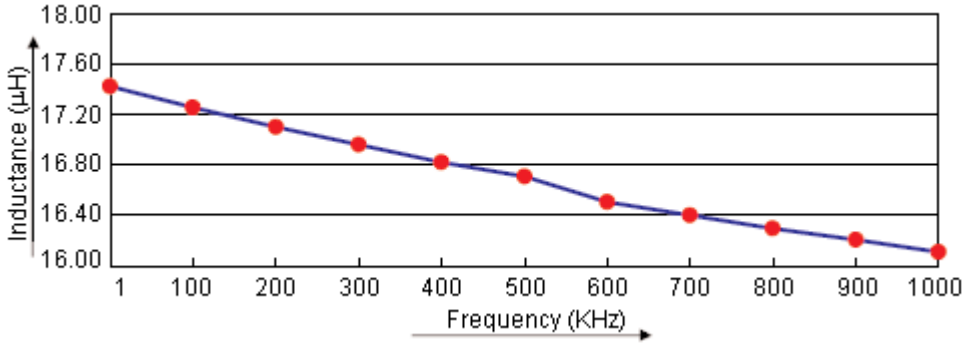
SIZE	DWG NO.	ELECTRONIC FILE	REV
A	M10003079	SD54-180MU	A

SCALE: NTS | U.O.M.: mm | SHEET: 1 OF 3

PART NO.	REVISIONS								
MCSD54-180MU	ECN #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
	-	A	RELEASED	Ashok	09/2/11	Jagan	09/2/11	Farnell	23/2/11

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} = 1.23A**
Specification	**18 ±20%**	**150 (Maximum)**	**Temperature Rise 40°C (Maximum)**
1	17.24	86.55	OK
2	17.46	87.23	OK
3	17.18	86.52	OK
4	17.27	86.36	OK
5	17.25	86.57	OK
Average	**17.28**	**86.65**	**OK**

TOLERANCES:

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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	M10003079	**SD54-180MU**	A

SCALE: NTS | U.O.M.: mm | SHEET: 2 OF 3

PART NO.	REVISIONS								
MCSD54-180MU	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	Ø0.28mm x 1P 2UEWF 155°C
3	Solder (Lead Free)	Sn99.3% / Cu0.7%

Part Number Table

Description	Part Number
Inductor, 18µH, 20%, SMD	MCSD54-180MU

http://www.farnell.com

http://www.newark.com

http://www.cpc.co.uk

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	M10003079	SD54-180MU	A

SCALE: NTS | U.O.M.: mm | SHEET: 3 OF 3