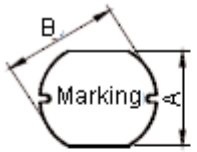
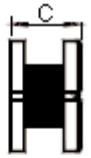
PART NO.	REVISIONS								
MCSD54-390LU	ECN #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
	-	A	RELEASED	Ashok	09/2/11	Jagan	09/2/11	Farnell	23/2/11

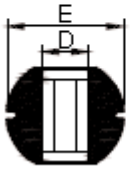
Configurations and Dimensions



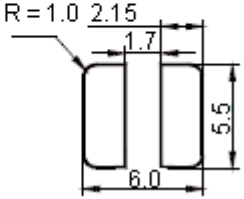
Top View



Side View



Bottom View

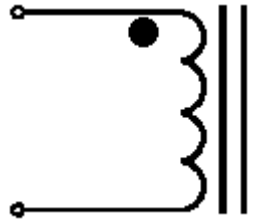


Suggest PCB Layout

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	-

Schematic Diagram



RoHS Compliant

Note:

(1) Wire Ø0.2mm x 1P 2UEWF 155°C
(2) 36.5TS (Reference)

Marking: 390

Electrical Characteristics

(at 25°C)

Test condition		
100KHz 0.25V	L	39µH ±15%
at 25°C	DCR	0.32mΩ (Maximum)
100KHz 0.25V I_{rms} = 0.8A	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	5.3	5.96	4.56	2.06	5.78
2	5.32	5.88	4.58	2.1	5.8
3	5.28	5.84	4.6	2.18	5.67
4	5.24	5.9	4.59	2.07	5.76
5	5.25	5.92	4.52	2.06	5.73
Average	**5.28**	**5.9**	**4.57**	**2.09**	**5.75**

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	M10003082	SD54-390LU	A

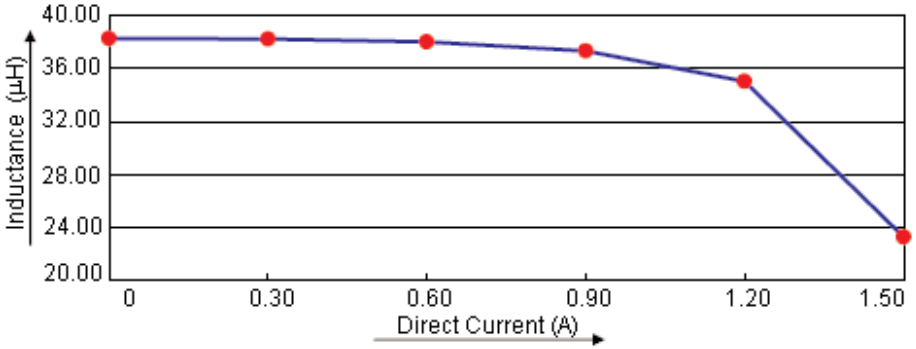
SCALE: NTS | U.O.M.: mm | SHEET: 1 OF 3

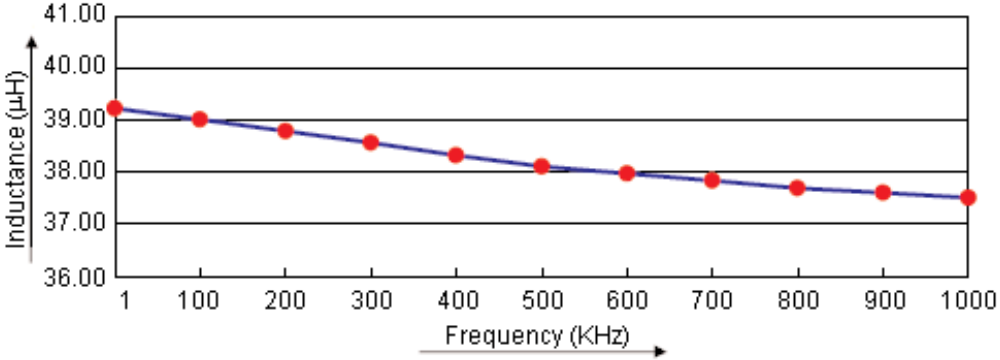
PART NO.	REVISIONS								
MCSD54-390LU	ECN #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
	-	A	RELEASED	Ashok	09/2/11	Jagan	09/2/11	Farnell	23/2/11

Test Data for Electrical

Test Item	L µH	DCR Ω	ΔT
Condition	**100KHz 0.25V**	**at 25°C**	**100KHz 0.25V I_{rms} = 0.8A**
Specification	**39 ±15%**	**0.32 (Maximum)**	**Temperature Rise 40°C (Maximum)**
1	36.68	0.217	OK
2	37.26	0.213	OK
3	39.32	0.218	OK
4	37.14	0.219	OK
5	39.62	0.214	OK
Average	**38**	**0.22**	**OK**

Electric Characteristics





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	M10003082	SD54-390LU	A

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

multicomp	PART NO. MCSD54-390LU	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	Ø0.12m x 1P 2UEWF 155°C
3	Solder (Lead Free)	Sn99.3% / Cu0.7%

Part Number Table

Description	Part Number
Inductor, 39µH, 15%, SMD	MCSD54-390LU

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	M10003082	SD54-390LU	A

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