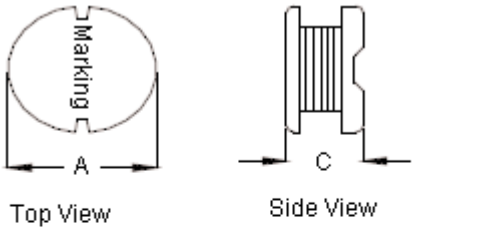
multicomp

PART NO.

MCSDC0603-3R9MU

REVISIONS									
ECN #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
-	A	RELEASED	Ashok	10/2/11	Jagan	10/2/11	Farnell	24/2/11

Configurations and Dimensions

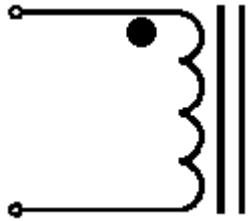


Dimensions : Millimetres

A	5.8 mm	(Maximum)
C	3.9 mm	(Maximum)
D	1.8 mm	(Reference)

Marking : 3R9

Schematic Diagram



RoHS Compliant

Note:

1. Wire Ø0.32mm x 1P 2UEF1/U 155°C
2. 11.5TS (Reference)

Electrical Characteristics (at 25°C)

Test Condition		
1KHz 1V	L	3.9µH ±20%
at 25°C	DCR	50mΩ (Maximum)
1KHz 1V I_{rms} = 2.1A	ΔT	Temperature rise 40°C (Maximum)

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

Test Data for Mechanical

Test Item	A mm	C mm	D mm
Specification	**5.8 (Maximum)**	**3.9 (Maximum)**	**1.8 (Reference)**
1	5.58	3.59	1.51
2	5.56	3.64	1.47
3	5.61	3.61	1.55
4	5.63	3.63	1.62
5	5.6	3.66	1.58
Average	**5.6**	**3.63**	**1.55**

TOLERANCES:

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE FOR REFERENCE PURPOSES ONLY.

DRAWN BY:	DATE:
Ashok	10/02/11
CHECKED BY:	DATE:
Jagan	10/02/11
APPROVED BY:	DATE:
Farnell	24/02/11

DRAWING TITLE: Inductor

SIZE	DWG NO.	ELECTRONIC FILE	REV
A	M10003192	SDC0603-3R9MU	A

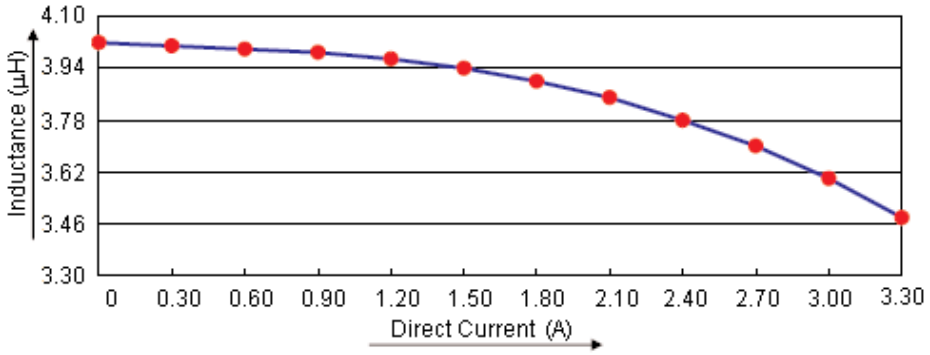
SCALE: NTS | U.O.M.: mm | SHEET: 1 OF 3

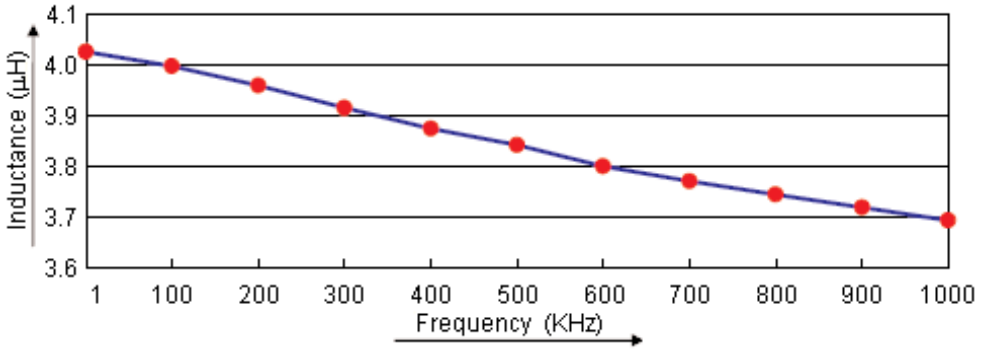
PART NO.	REVISIONS								
MCSDC0603-3R9MU	ECN #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
	-	A	RELEASED	Ashok	10/2/11	Jagan	10/2/11	Farnell	24/2/11

Test Data for Electrical

Test Item	L µH	DCR mΩ	ΔT
Condition	**1KHz 1V**	**at 25°C**	**1KHz 1V I_{rms} = 2.1A**
Specification	**3.9 ±20%**	**50 (Maximum)**	**Temperature Rise 40°C (Maximum)**
1	4.02	33.83	OK
2	4.05	34.13	OK
3	3.99	33.99	OK
4	4.01	33.86	OK
5	4.03	34.05	OK
Average	**4.02**	**33.97**	**OK**

Electric Characteristics





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Jagan	10/02/11
APPROVED BY:	DATE:
Farnell	24/02/11

DRAWING TITLE: Inductor

SIZE	DWG NO.	ELECTRONIC FILE	REV
A	M10003192	SDC0603-3R9MU	A

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

multicomp	PART NO. MCSDC0603-3R9MU	REVISIONS									
		ECN #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
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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 ±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	K22 DRM 5.6 x 3.6 RB-R B2.2 F1.5
2	Wire	Ø0.32mm x 1P 2UEF1/U 155°C
3	Solder (Lead Free)	Sn99.3%/Cu0.7%

Part Number Table

Description	Part Number
Inductors, 3.9µH, 20%, SMD	MCSDC0603-3R9MU

http://www.farnell.com

http://www.newark.com

http://www.cpc.co.uk

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CHECKED BY:	DATE:
Jagan	10/02/11
APPROVED BY:	DATE:
Farnell	24/02/11

DRAWING TITLE: Inductor

SIZE	DWG NO.	ELECTRONIC FILE	REV
A	M10003192	SDC0603-3R9MU	A

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