



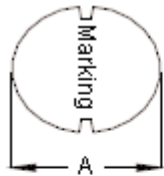
PART NO.

**MCSDC0603-2R5MU**

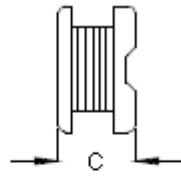
**REVISIONS**

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**

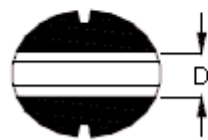


Top View

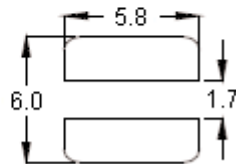


Side View

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

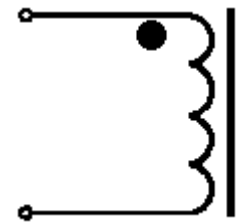


Bottom View



Suggest PCB Layout  
Dimensions : Millimetres

**Schematic Diagram**



**Note:**

1. Wire Ø0.35mm x 1P 2UEF1/U 155°C
2. 8.5TS (Reference)

**Marking : 2R5**

**Electrical Characteristics**

(at 25°C)

Test Condition		
1KHz 1V	L	2.5µH ±20%
at 25°C	DCR	50mΩ (Maximum)
1KHz 1V I <sub>rms</sub> = 2.35A	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	<b>5.8</b> (Maximum)	<b>3.9</b> (Maximum)	<b>1.8</b> (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
<b>Average</b>	<b>5.6</b>	<b>3.63</b>	<b>1.55</b>

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Ashok	10/02/11
<b>CHECKED BY:</b>	<b>DATE:</b>
Jagan	10/02/11
<b>APPROVED BY:</b>	<b>DATE:</b>
Farnell	24/02/11

**DRAWING TITLE:**

**Inductor**

<b>SIZE</b> A	<b>DWG NO.</b> M10003190	<b>ELECTRONIC FILE</b> SDC0603-2R5MU	<b>REV</b> A
<b>SCALE: NTS</b>		<b>U.O.M.: mm</b>	<b>SHEET: 1 OF 3</b>



PART NO.

**MCSDC0603-2R5MU**

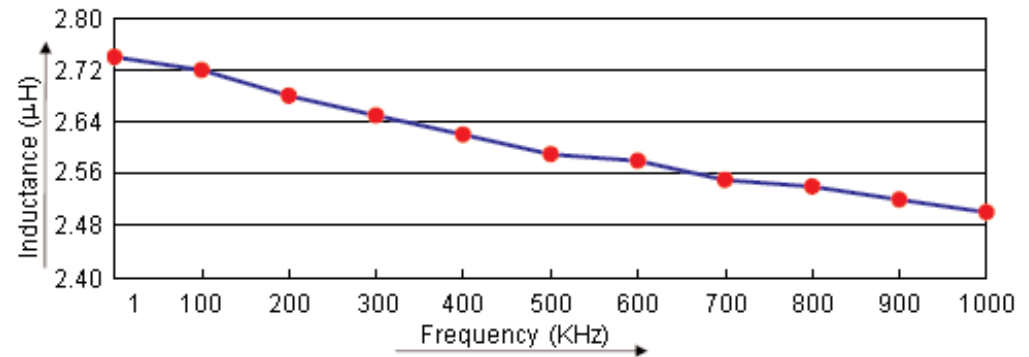
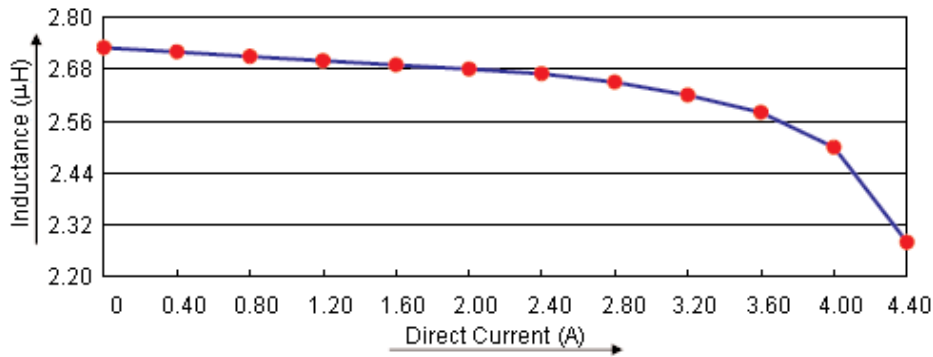
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-	A	RELEASED	Ashok	10/2/11	Jagan	10/2/11	Farnell	24/2/11

**Test Data for Electrical**

Test Item	L μH	DCR mΩ	ΔT
Condition	1KHz 1V	at 25°C	1KHz 1V I <sub>rms</sub> = 2.35A
Specification	2.5 ±20%	50 (Maximum)	Temperature Rise 40°C (Maximum)
1	2.71	22.86	OK
2	2.69	22.82	OK
3	2.68	23.16	OK
4	2.66	23.14	OK
5	2.7	23.08	OK
<b>Average</b>	<b>2.69</b>	<b>23.01</b>	<b>OK</b>

**Electric Characteristics**



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Farnell	24/02/11

**DRAWING TITLE:**

**Inductor**

<b>SIZE</b> A	<b>DWG NO.</b> M10003190	<b>ELECTRONIC FILE</b> SDC0603-2R5MU	<b>REV</b> A
<b>SCALE: NTS</b>		<b>U.O.M.: mm</b>	<b>SHEET: 2 OF 3</b>



PART NO.

MCSDC0603-2R5MU

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	Ø0.35mm x 1P 2UEF1/U 155°C
3	Solder (Lead Free)	Sn99.3%/Cu0.7%

Part Number Table

Description	Part Number
Inductors, 2.5µH, 20%, SMD	MCSDC0603-2R5MU

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

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Jagan	10/02/11
<b>APPROVED BY:</b>	<b>DATE:</b>
Farnell	24/02/11

<b>DRAWING TITLE:</b>			
<b>Inductor</b>			
<b>SIZE</b>	<b>DWG NO.</b>	<b>ELECTRONIC FILE</b>	<b>REV</b>
A	M10003190	SDC0603-2R5MU	A
<b>SCALE: NTS</b>		<b>U.O.M.: mm</b>	<b>SHEET: 3 OF 3</b>