



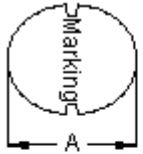
PART NO.

**MCSDC1006-560KU**

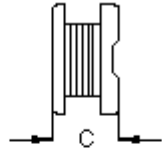
**REVISIONS**

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

**Configurations and Dimensions**

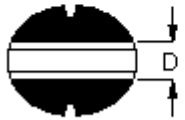


Top View

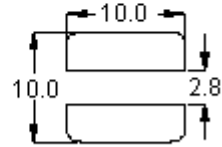


Side View

A	9.8 mm	(Maximum)
C	5.8 mm	(Maximum)
D	2.9 mm	(Reference)



Bottom View



Suggest PCB Layout

Dimensions : Millimetres

Marking : 560

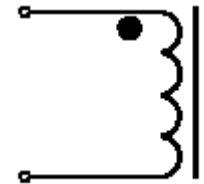
**Electrical Characteristics**

(at 25°C)

Test Condition		
1KHz 1V	L	56µH ±10%
at 25°C	DCR	190mΩ (Maximum)
1KHz 1V I <sub>rms</sub> = 1.15A	ΔT	Temperature rise 40°C (Maximum)

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

**Schematic Diagram**



**Note:**

1. Wire Ø0.33mm x 1P 2UEF1/U 155°C
2. 34.5TS (Reference)

**Test Data for Mechanical**

Test Item	A mm	C mm	D mm
Specification	<b>9.8</b> (Maximum)	<b>5.8</b> (Maximum)	<b>2.9</b> (Reference)
1	9.56	5.54	2.81
2	9.54	5.61	2.83
3	9.52	5.57	2.79
4	9.49	5.53	2.76
5	9.51	5.58	2.84
<b>Average</b>	<b>9.52</b>	<b>5.57</b>	<b>2.81</b>

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Arun	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>	<b>DWG NO.</b>	<b>ELECTRONIC FILE</b>	<b>REV</b>
A	M10003053	SDC1006-560KU	A
<b>SCALE: NTS</b>		<b>U.O.M.: mm</b>	<b>SHEET: 1 OF 3</b>



PART NO.

**MCSDC1006-560KU**

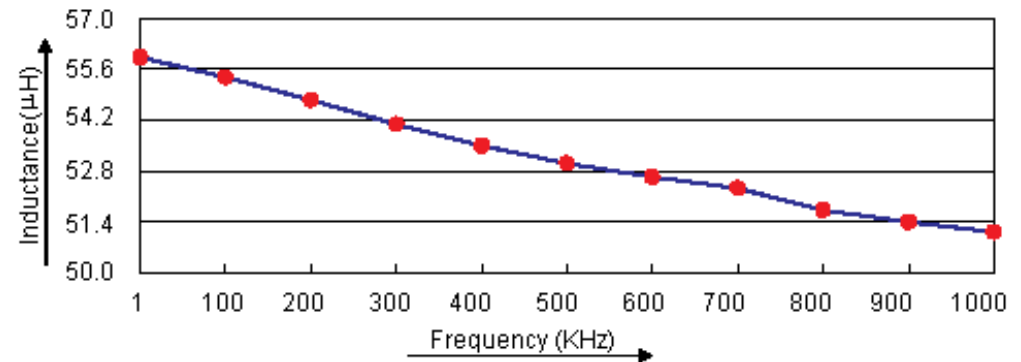
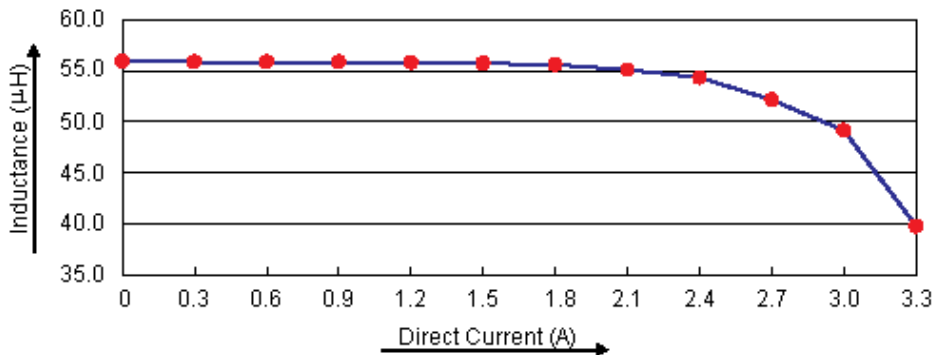
**REVISIONS**

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-	A	RELEASED	Arun	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> = 1.15A
Specification	56 ±10%	190 (Maximum)	Temperature rise 40°C (Maximum)
1	55.86	152.88	OK
2	55.21	152.08	OK
3	55.75	151.95	OK
4	55.48	152.3	OK
5	55.63	152.75	OK
<b>Average</b>	<b>55.59</b>	<b>152.39</b>	<b>OK</b>

**Electric Characteristics**



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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	M10003053	SDC1006-560KU	A
<b>SCALE: NTS</b>		<b>U.O.M.: mm</b>	<b>SHEET: 2 OF 3</b>



PART NO.

**MCSDC1006-560KU**

**REVISIONS**

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

**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	K22 DRM 9.5 x 5.5 RB-R B = 4.5 F = 3
2	Wire	Ø0.33mm x 1P 2UEF1/U 155°C
3	Solder (Lead Free)	Sn99.3%/Cu0.7%

**Part Number Table**

Description	Part Number
Inductors, 56µH, 10%, SMD	MCSDC1006-560KU

<http://www.farnell.com>

<http://www.newark.com>

<http://www.cpc.co.uk>

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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>
<b>A</b>	<b>M10003053</b>	<b>SDC1006-560KU</b>	<b>A</b>
<b>SCALE: NTS</b>		<b>U.O.M.: mm</b>	<b>SHEET: 3 OF 3</b>