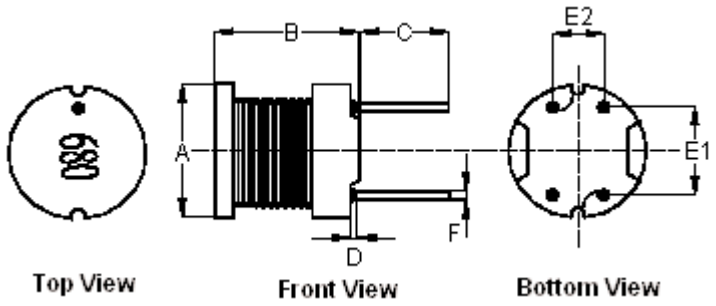
multicomp

PART NO.

MCSCH110-680KU

REVISIONS									
ECN #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
-	A	RELEASED	SID	20/4/11	SHA	20/4/11		04/5/11

Configurations and Dimensions



Note : White dot of marking indicates the start terminal of winding

A	10.5 mm	(Max.)
B		
C	3.5 ±0.5 mm	-
D	3 mm	(Max.)
E1	5 ±0.5 mm	-
E2	4 ±0.5 mm	-
F	Ø0.7 mm	(Ref.)

Schematic Diagram

Note:
1. Wire UEFN/U (155°C) Ø0.45mm × 2
2. 38.5TS (Reference) C.W

RoHS Compliant

Electrical Characteristics

Test Condition		
1 KHz 0.25 V	L	68 µH ±10%
T_a = 25°C	DCR	0.12 mΩ (Max.)
1 KHz 0.25 V I_{rms} = 2.1 A	ΔT	Temperature rise 40°C (Max.)

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

Test Data for Mechanical

Test Item	A mm	B mm	C mm	D mm	E1 mm	E2 mm	F mm
Specification	**10.5 (Max.)**	**10.5 (Max.)**	**3.5 ±0.5**	**3 (Max.)**	**5 ±0.5**	**4 ±0.5**	**Ø0.7 (Ref.)**
1	10.17	9.88	3.43	0.92	5.07	4.03	0.63
2	10.1	9.9	3.45	0.98	5.05	3.95	0.64
3	10.27	9.88	3.43	1.23	5.06	3.98	0.67
4	10.2	9.85	3.52	1.15	5.08	4.05	0.66
5	10.19	9.86	3.54	0.98	5.07	4.07	0.64
Average	**10.19**	**9.87**	**3.47**	**1.05**	**5.07**	**4.02**	**0.65**

TOLERANCES:

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE FOR REFERENCE PURPOSES ONLY.

DRAWN BY:	DATE:
SID	20/04/11
CHECKED BY:	DATE:
SHA	20/04/11
APPROVED BY:	DATE:
	04/05/11

DRAWING TITLE: **Inductor - Radial Leaded**

SIZE	DWG NO.	ELECTRONIC FILE	REV
A	M10002630	MCSCH110-680KU	A

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

multicomp

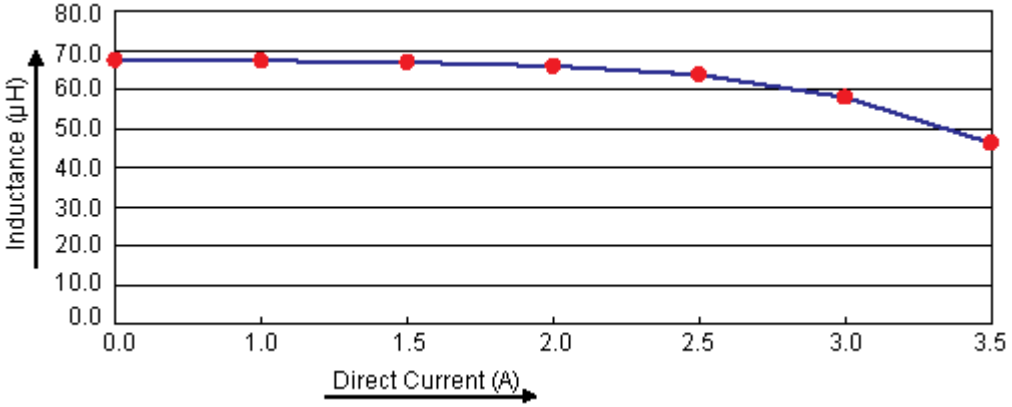
PART NO.

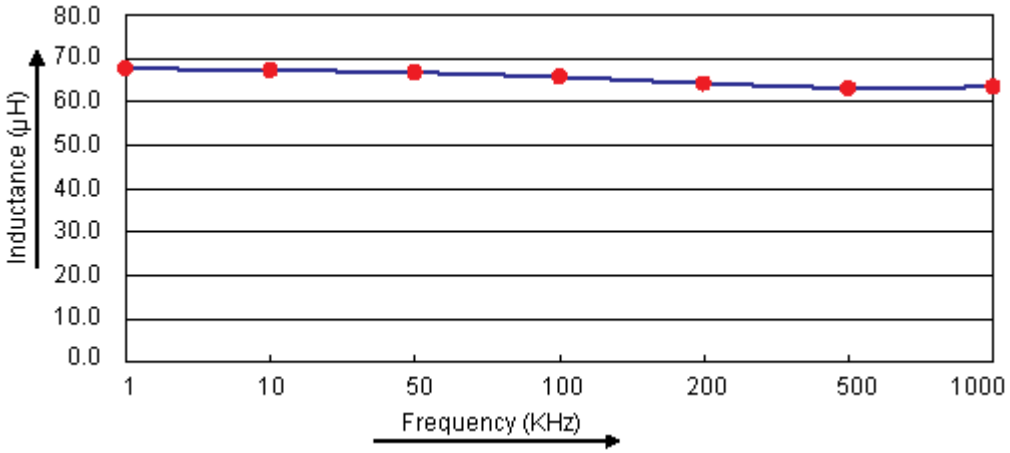
MCSCH110-680KU

REVISIONS

ECN #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
-	A	RELEASED	SID	20/4/11	SHA	20/4/11		04/5/11

Electric Characteristics





Test Data for Electrical

Test Item	L µH	DCR Ω	ΔT
Condition	**1 KHz 0.25 V**	**at 25°C**	**1 KHz 0.25 V I_{rms} = 2.1 A**
Specification	**68 ±10%**	**0.12 (Max.)**	**Temperature rise 40°C (Max.)**
1	67.32	0.09	OK
2	67.34	0.089	
3	68.26		
4	67.98	0.091	
5	67.5	0.09	
Average	**67.68**	**0.09**	**OK**

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SID	20/04/11
CHECKED BY:	DATE:
SHA	20/04/11
APPROVED BY:	DATE:
	04/05/11

DRAWING TITLE: **Inductor - Radial Leaded**

SIZE	DWG NO.	ELECTRONIC FILE	REV
A	M10002630	MCSCH110-680KU	A

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

multicomp	PART NO. MCSCH110-680KU	REVISIONS									
		ECN #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
		-	A	RELEASED	SID	20/4/11	SHA	20/4/11		04/5/11

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 ±5% Inductance change : Within ±5%	According to J-STD-020B level 3 Test condition : 60°C 60% RH Test duration : 40 hrs 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 95% of the surface area of any individual lead.	According to J-STD-002B Steam aging category : 97°C 98% RH Steam aging duration : 8 hrs Solder : Lead-free solder Solder temperature : 260 ±5°C Dip time : 5 +0 / -0.5 s

Material List

No.	Item	Material Description
1	Core	DL5 DR4W 10 × 10 RSN B4.5 F5
2	Wire	Ø0.45 mm × 2 UEFN/U (155°C)
3	Solder (Lead-free)	Sn99.3% / Cu0.7%

Part Number Table

Description	Part Number
Inductor, 68µH, 10%, Radial Leaded	MCSCH110-680KU

http://www.element14.com

http://www.farnell.com

http://www.newark.com

TOLERANCES:

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SID	20/04/11
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SHA	20/04/11
APPROVED BY:	DATE:
	04/05/11

DRAWING TITLE: **Inductor - Radial Leaded**

SIZE	DWG NO.	ELECTRONIC FILE	REV
A	M10002630	MCSCH110-680KU	A

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