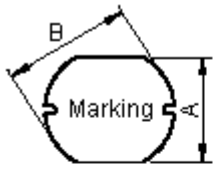
multicomp

PART NO.

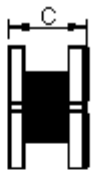
MCSD105-821KU

REVISIONS									
ECN #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
-	A	RELEASED	Shashi	09/2/11	Jagan	09/2/11	Farnell	23/2/11

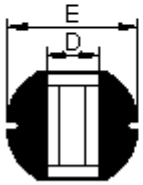
Configurations and Dimensions



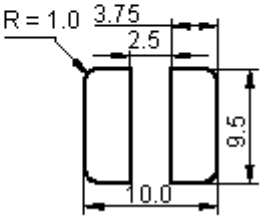
Top View



Side View



Bottom View

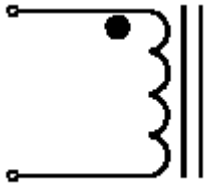


Suggest PCB Layout

Dimensions : Millimetres

A	9 ±0.4 mm	-
B	10 ±0.4 mm	-
C	5.4 ±0.5 mm	-
D	3.5 mm	(Reference)
E	10.2 ±0.5 mm	-

Schematic Diagram



RoHS Compliant

Note:

1. Wire Ø0.2mm x 1P 2UEWF 155°C
2. 125.5TS (Reference)

Marking : 821 **YY** **: Year**
YYWW **WW** **: Week**

Electrical Characteristics

(at 25°C)

Test Condition		
100KHz 0.25V	L	820µH ±10%
at 25°C	DCR	2.55Ω (Maximum)
100KHz 0.25V 1_{rms} = 0.24A	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	**9 ±0.4**	**10 ±0.4**	**5.4 ±0.5**	**3.5 (Reference)**	**10.2 ±0.5**
1	9	9.86	5.57	3.49	9.83
2	9.05	9.89	5.62	3.64	9.81
3		9.95	5.59	3.63	9.89
4	9.03	9.76	5.56	3.16	9.83
5	9.01	9.96	5.6	3.25	9.89
Average	**9.03**	**9.88**	**5.59**	**3.43**	**9.85**

TOLERANCES:

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE FOR REFERENCE PURPOSES ONLY.

DRAWN BY:	DATE:
Shashi	09/02/11
CHECKED BY:	DATE:
Jagan	09/02/11
APPROVED BY:	DATE:
Farnell	23/02/11

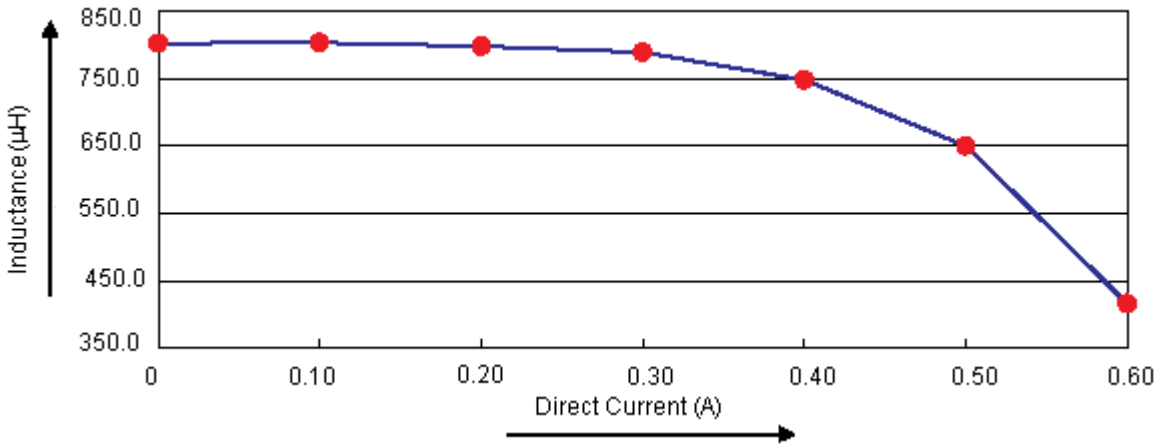
DRAWING TITLE: Inductor

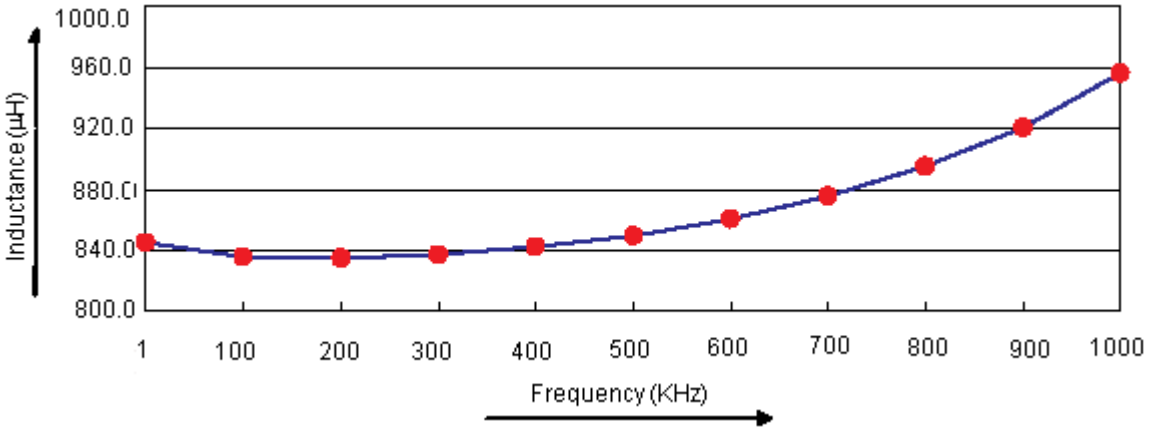
SIZE	DWG NO.	ELECTRONIC FILE	REV
A	M10002786	SD105-821KU	A

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

PART NO.	REVISIONS									
MCSD105-821KU	ECN #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
	-	A	RELEASED	Shashi	09/2/11	Jagan	09/2/11	Farnell	23/2/11

Electric Characteristics





Test Data for Electrical

Test Item	L µH	DCR Ω	ΔT
Condition	**100KHz 0.25V**	**at 25°C**	**100KHz 0.25V I_{rms} = 0.24A**
Specification	**820 ±10%**	**2.55 (Maximum)**	**Temperature rise 40°C (Maximum)**
1	798	1.44	OK
2	807.85		OK
3	815	1.43	OK
4	819.4		OK
5	809.55		OK
Average	**809.96**	**1.43**	**OK**

TOLERANCES:

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Shashi	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	M10002786	SD105-821KU	A

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

multicomp	PART NO. MCSD105-821KU	REVISIONS									
		ECN #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
		-	A	RELEASED	Shashi	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 CDR10 x 5.4 (ST) B3.8 F2.6
2	Wire	Ø0.2mm x 1P 2UEWF 155°C
3	Solder (Lead Free)	99.3%Sn0.7%Cu

Part Number Table

Description	Part Number
Inductor, 820µH, 240mA, 10%	MCSD105-821KU

http://www.farnell.com

http://www.newark.com

http://www.cpc.co.uk

TOLERANCES:

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DRAWN BY:	DATE:
Shashi	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	M10002786	SD105-821KU	A

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