



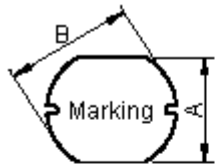
PART NO.

MCSD105-220MU

REVISIONS

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

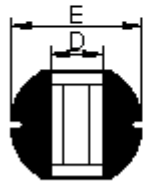
Configurations and Dimensions



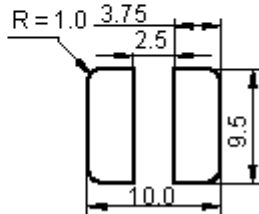
Top View



Side View



Bottom View

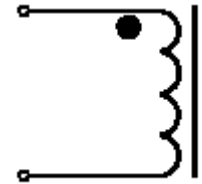


Suggest PCB Layout

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



Note:

- (1) Wire Ø0.45mm x 1P 2UEWF 155°C
- (2) 20.5TS (Reference)

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	9.01	10.02	5.63	3.13	9.79
2	9.03	10.05	5.55	3.52	9.82
3	9.09	10.14	5.53	3.35	9.83
4	9.04	10.04		3.25	
5	9.06	9.97	5.52	3.17	9.9
Average	9.05	10.04	5.55	3.28	9.83

Marking: 220
YYWW

Electrical Characteristics

(at 25°C)

Test Condition		
100KHz 0.25V	L	22µH ±20%
at 25°C	DCR	100mΩ (Maximum)
100KHz 0.25V I _{rms} = 1.95A	ΔT	Temperature Rise 40°C (Maximum)

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

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sidhu

DATE:

09/02/11

CHECKED BY:

Jagan

DATE:

09/02/11

APPROVED BY:

Farnell

DATE:

23/02/11

DRAWING TITLE:

Inductor

SIZE
A

DWG NO.

M10002615

ELECTRONIC FILE
SD105-220MUREV
A

SCALE: NTS

U.O.M.: mm

SHEET: 1 OF 3



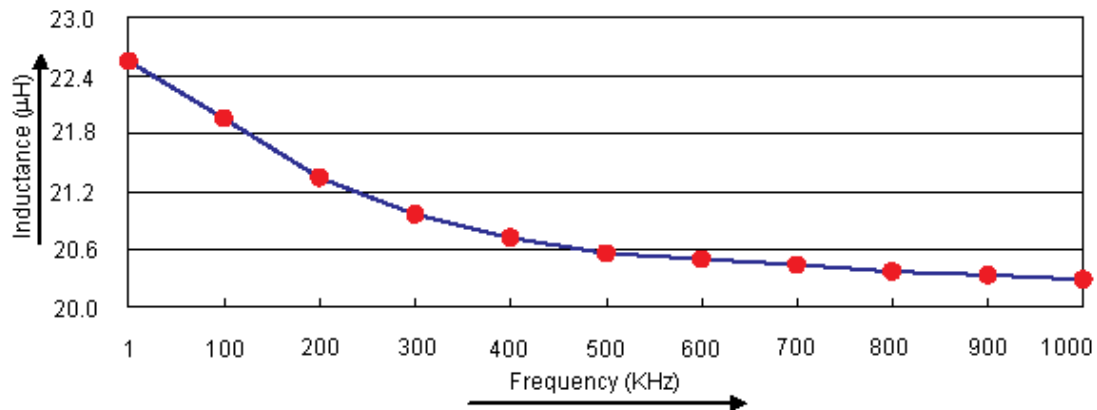
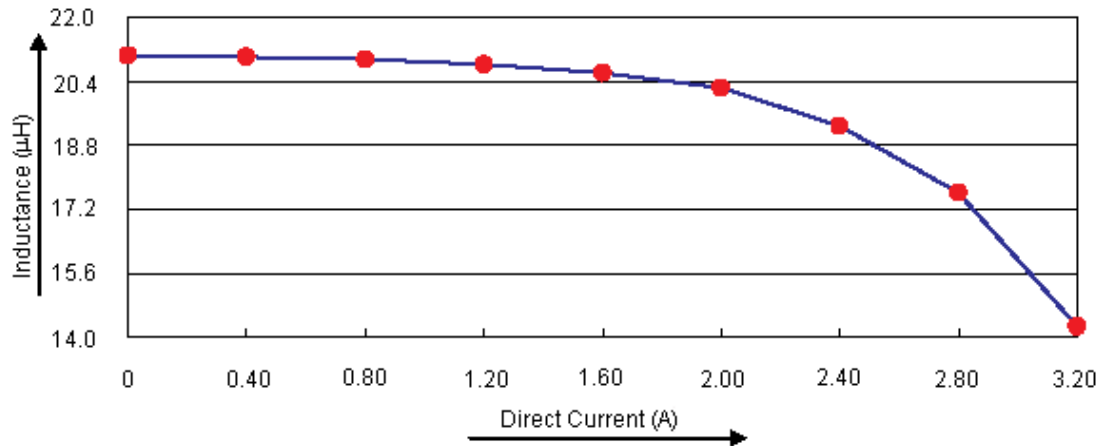
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Electric Characteristics



Test Data for Electrical

Test Item	L μH	DCR mΩ	ΔT
Condition	100KHz 0.25V	at 25°C	100KHz 0.25V I _{rms} = 1.95A
Specification	22 ±20%	100 (Maximum)	Temperature Rise 40°C(Maximum)
1	20.98	52	OK
2	21.12	49	OK
3	24.03	50.4	OK
4	20.96	48.7	OK
5	21.2	51.6	OK
Average	21.658	50.34	OK

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U.O.M.: mm

SHEET: 2 OF 3



PART NO.

MCSD105-220MU

REVISIONS

ECN #

REV

DESCRIPTION

DRAWN

DATE

CHECKD

DATE

APPRVD

DATE

-

A

RELEASED

Sidhu

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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°C ±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	Ø0.45mm x 1P 2UEWF 155°C
3	Solder (Lead Free)	99.3%Sn0.7%Cu

Part Number Table

Description	Part Number
Inductor, 22µH, 20%, 2pins	MCSD105-220MU

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

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