



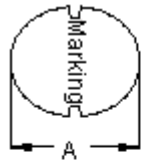
PART NO.

MCSDC1006-1R5MU

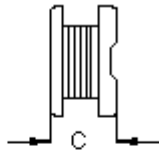
REVISIONS

| 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

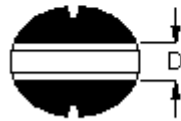


Top View

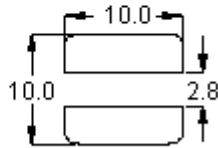


Side View

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



Bottom View



Suggest PCB Layout

Dimensions : Millimetres

Marking : 1R5

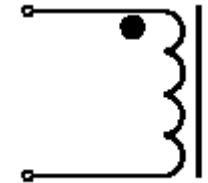
Electrical Characteristics

(at 25°C)

| Test Condition | | |
|---------------------------------|-----|---------------------------------|
| 1KHz 1V | L | 1.5µH ±20% |
| at 25°C | DCR | 18mΩ (Maximum) |
| 1KHz 1V I _{rms} = 6.4A | ΔT | Temperature Rise 40°C (Maximum) |

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

Schematic Diagram



Note:

- (1) Wire Ø0.35mm x 2P 2UEF1/U 155°C
- (2) 5.5TS (Reference)

Test Data for Mechanical

| Test Item | A mm | C mm | D mm |
|----------------|-------------------------|-------------------------|---------------------------|
| Specification | 9.8 (Maximum) | 5.8 (Maximum) | 2.9 (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 |
| Average | 9.52 | 5.57 | 2.81 |

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| | |
|---------------------|--------------|
| DRAWN BY: | DATE: |
| Arun | 10/02/11 |
| CHECKED BY: | DATE: |
| Jagan | 10/02/11 |
| APPROVED BY: | DATE: |
| Farnell | 24/02/11 |

DRAWING TITLE:

Inductor

| | | | |
|-------------------|-----------------------------|---|----------------------|
| SIZE A | DWG NO. M10003036 | ELECTRONIC FILE SDC1006-1R5MU | REV A |
| SCALE: NTS | | U.O.M.: mm | SHEET: 1 OF 3 |



PART NO.

MCSDC1006-1R5MU

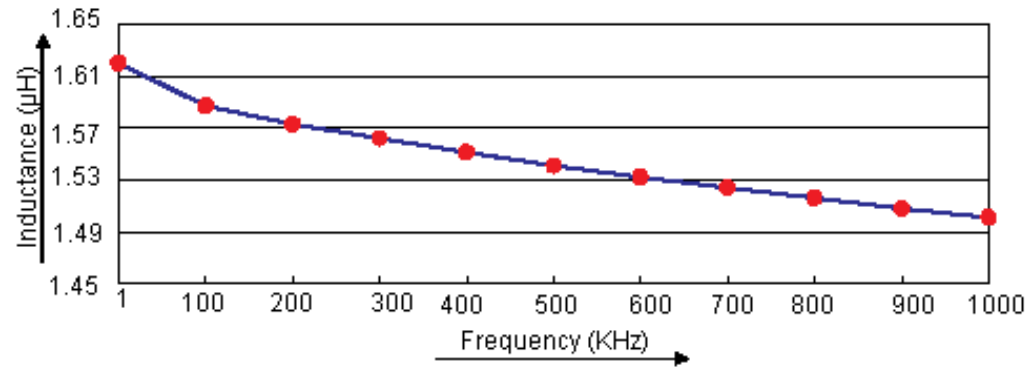
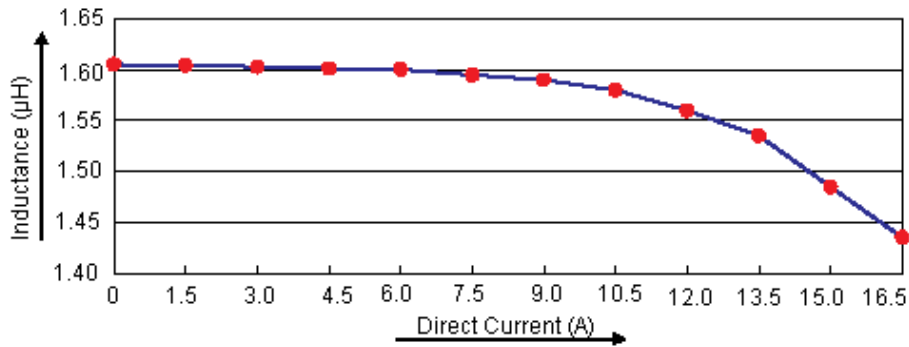
REVISIONS

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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 _{rms} = 6.4A |
| Specification | 1.5 ±20% | 18 (Maximum) | Temperature Rise 40°C (Maximum) |
| 1 | 1.61 | 13 | OK |
| 2 | 1.59 | 12.68 | OK |
| 3 | 1.54 | 12.47 | OK |
| 4 | 1.51 | 12.53 | OK |
| 5 | 1.57 | 12.26 | OK |
| Average | 1.56 | 12.59 | OK |

Electric Characteristics



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Arun

CHECKED BY:

Jagan

APPROVED BY:

Farnell

DATE:

10/02/11

DATE:

10/02/11

DATE:

24/02/11

DRAWING TITLE:

Inductor

SIZE
A

DWG NO.

M10003036

ELECTRONIC FILE
SDC1006-1R5MU

REV
A

SCALE: NTS

U.O.M.: mm

SHEET: 2 OF 3



PART NO.

MCSDC1006-1R5MU

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 9.5 x 5.5 RB-R B=4.5 F=3 |
| 2 | Wire | Ø0.35mm x 2P 2UEF1/U 155°C |
| 3 | Solder (Lead Free) | Sn99.3% / Cu0.7% |

Part Number Table

| Description | Part Number |
|----------------------------|-----------------|
| Inductors, 1.5µH, 20%, SMD | MCSDC1006-1R5MU |

<http://www.farnell.com>

<http://www.newark.com>

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

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DRAWING TITLE:

Inductor

| | | | |
|-------------------|-------------------|------------------------|------------|
| SIZE | DWG NO. | ELECTRONIC FILE | REV |
| A | M10003036 | SDC1006-1R5MU | A |
| SCALE: NTS | U.O.M.: mm | SHEET: 3 OF | 3 |