



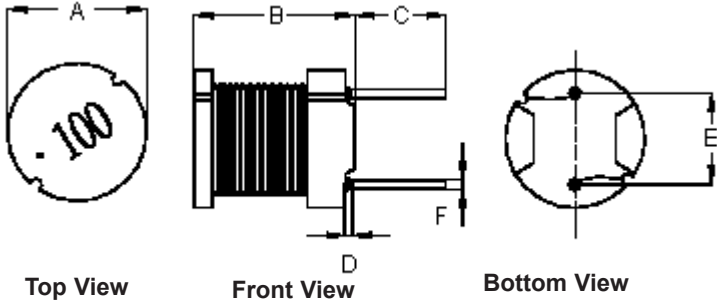
PART NO.

MCSCH664-100KU

REVISIONS

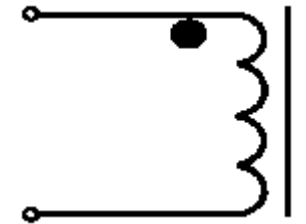
| ECN # | REV | DESCRIPTION | DRAWN | DATE | CHECKD | DATE | APPRVD | DATE |
|-------|-----|-------------|-------|---------|--------|---------|--------|---------|
| - | A | RELEASED | SID | 20/4/11 | SHA | 20/4/11 | | 04/5/11 |

Configurations and Dimensions



| | | |
|---|-----------|--------|
| A | 6 ±0.5 mm | - |
| B | 6.5 mm | (Max.) |
| C | 4 ±1 mm | - |
| D | 2 mm | (Max.) |
| E | 4 ±0.5 mm | - |
| F | ∅0.5 mm | (Ref.) |

Schematic Diagram



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

Note:

1. Wire UEFN/U (155°C) ∅0.37mm
2. 18.5TS (Reference) C.W

Electrical Characteristics

| Test Condition | | |
|---------------------------------------|-----|------------------------------|
| 1 KHz 0.25 V | L | 10 µH ±10% |
| T _a = 25°C | DCR | 50 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 | E mm | F mm |
|---------------|--------|------------|------|----------|--------|-------------|
| Specification | 6 ±0.5 | 6.5 (Max.) | 4 ±1 | 2 (Max.) | 4 ±0.5 | ∅0.5 (Ref.) |
| 1 | 6.03 | 6.37 | 4.09 | 0.63 | 4.14 | 0.53 |
| 2 | 6.02 | 6.35 | 4.12 | 0.56 | 3.97 | 0.54 |
| 3 | | 6.38 | 4.25 | 0.58 | 4.08 | |
| 4 | 6.04 | 6.35 | 4.15 | 0.62 | 4.14 | |
| 5 | 6.03 | 6.37 | 4.11 | 0.6 | 4.02 | 0.53 |
| Average | 6.03 | 6.36 | 4.14 | 0.6 | 4.07 | 0.54 |

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20/04/11

DATE:

20/04/11

DATE:

04/05/11

DRAWING TITLE:

Inductor - Radial Leaded

SIZE
A

DWG NO.

M10002633

ELECTRONIC FILE
MCSCH664-100KU

REV
A

SCALE: NTS

U.O.M.: mm

SHEET: 1 OF 3



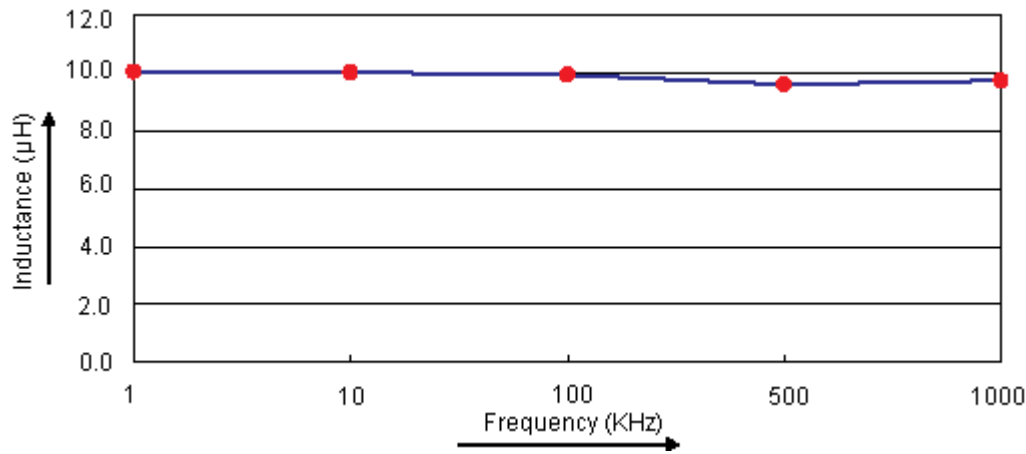
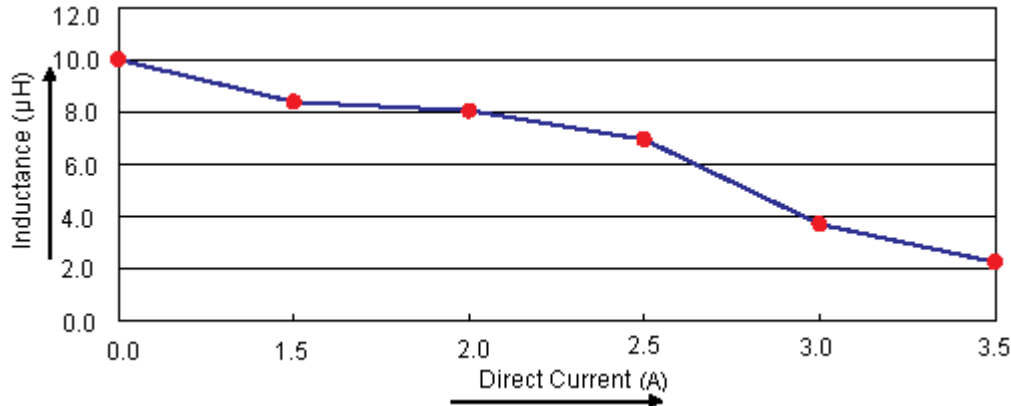
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|-------|-----|-------------|-------|---------|--------|---------|--------|---------|
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Electric Characteristics



Test Data for Electrical

| Test Item | L µH | DCR mΩ | ΔT |
|---------------|-----------------|--------------|---|
| Condition | 1 KHz 0.25 V | at 25°C | 1 KHz 0.25 V I _{rms} = 2.10 A |
| Specification | 10 ±10% | 50 (Max.) | Temperature rise 40°C (Max.) |
| 1 | 9.89 | 37.21 | OK |
| 2 | 9.82 | 37.04 | |
| 3 | 9.93 | 37.52 | |
| 4 | 9.97 | 39.2 | |
| 5 | 9.93 | 37.21 | |
| Average | 9.91 | 37.64 | OK |

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| | 04/05/11 |

DRAWING TITLE:

Inductor - Radial Leaded

| | | | |
|------------------|-----------------------------|-----------------------------------|-----------------|
| SIZE A | DWG NO. M10002633 | ELECTRONIC FILE MCSCH664-100KU | REV A |
| SCALE: NTS | U.O.M.: mm | SHEET: 2 OF 3 | |



PART NO.

MCSCH664-100KU

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 ±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 | M4S DRWW6 × 6.3 D31M 2H C2.4 F2.7 P4 |
| 2 | Wire | Ø0.37 mm UEFN/U (155°C) |
| 3 | Solder (Lead-free) | Sn99.3% / Cu0.7% |

Part Number Table

| Description | Part Number |
|------------------------------------|----------------|
| Inductor, 10µH, 10%, Radial Leaded | MCSCH664-100KU |

<http://www.element14.com>

<http://www.farnell.com>

<http://www.newark.com>

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SHEET: 3 OF 3