



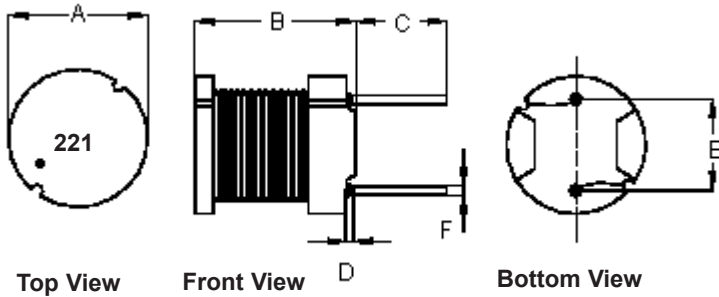
PART NO.

MCSCH895-221 KU

REVISIONS

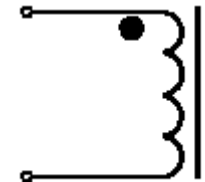
| ECN # | REV | DESCRIPTION | DRAWN | DATE | CHECKD | DATE | APPRVD | DATE |
|-------|-----|-------------|-------|---------|--------|---------|--------|---------|
| - | A | RELEASED | ARU | 20/4/11 | SAN | 20/4/11 | | 04/5/11 |

Configurations and Dimensions



| | | |
|---|-------------|--------|
| A | 7.8 ±0.5 mm | - |
| B | 9.5 ±0.5 mm | - |
| C | 5 ±1 mm | - |
| D | 3 mm | (Max.) |
| E | 5 ±0.5 mm | - |
| F | ∅0.7 mm | (Ref.) |

Schematic Diagram



Note:

1. Wire UEFN/U (155°C) ∅0.3mm
2. 83.5TS (Reference) C.W

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

Electrical Characteristics

| Test Condition | | |
|--|-----|------------------------------|
| 1 KHz 0.25 V | L | 220 µH ±10% |
| T _a = 25°C | DCR | 480 mΩ (Max.) |
| 1 KHz 0.25 V I _{rms} = 0.64 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 | 7.8 ±0.5 | 9.5 ±0.5 | 5 ±1 | 3 (Max.) | 5 ±0.5 | ∅0.7 (Ref.) |
| 1 | 7.8 | 9.49 | 5.17 | 1.38 | 4.99 | 0.69 |
| 2 | 7.81 | 9.47 | 5.18 | 1.27 | 5.1 | 0.68 |
| 3 | 7.82 | 9.45 | 5.12 | 1.38 | 4.92 | 0.7 |
| 4 | 7.8 | 9.47 | 5.11 | 1.44 | 5.11 | 0.69 |
| 5 | 7.81 | 9.48 | 5.34 | 1.25 | | 0.68 |
| Average | 7.81 | 9.47 | 5.18 | 1.34 | 5.05 | 0.69 |

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DRAWN BY:

ARU

CHECKED BY:

SAN

APPROVED BY:

DATE:

20/04/11

DATE:

20/04/11

DATE:

04/05/11

DRAWING TITLE:

Inductor - Radial Leaded

SIZE
A

DWG NO.

M10002998

ELECTRONIC FILE
MCSCH895-221KU

REV
A

SCALE: NTS

U.O.M.: mm

SHEET: 1 OF 3



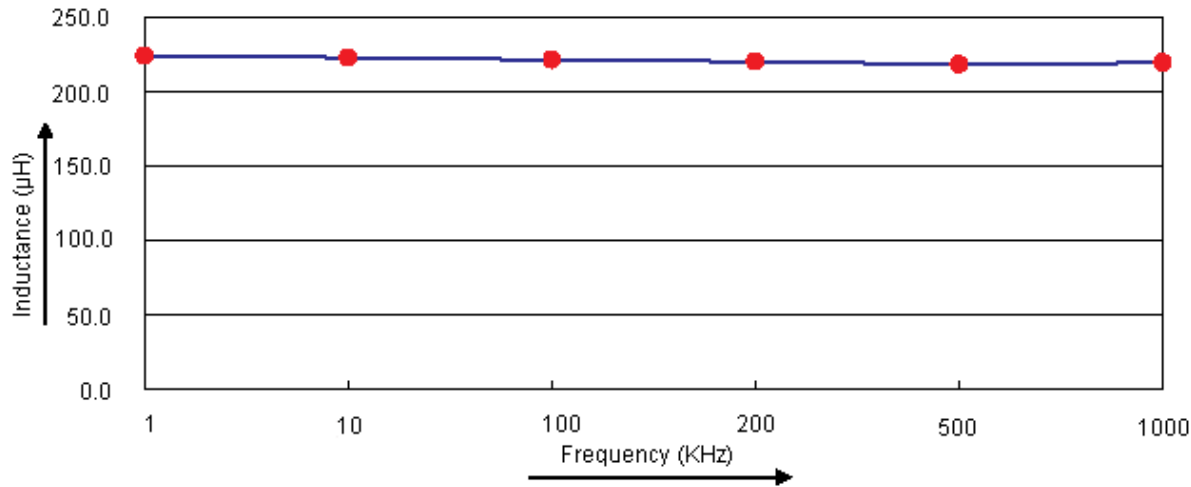
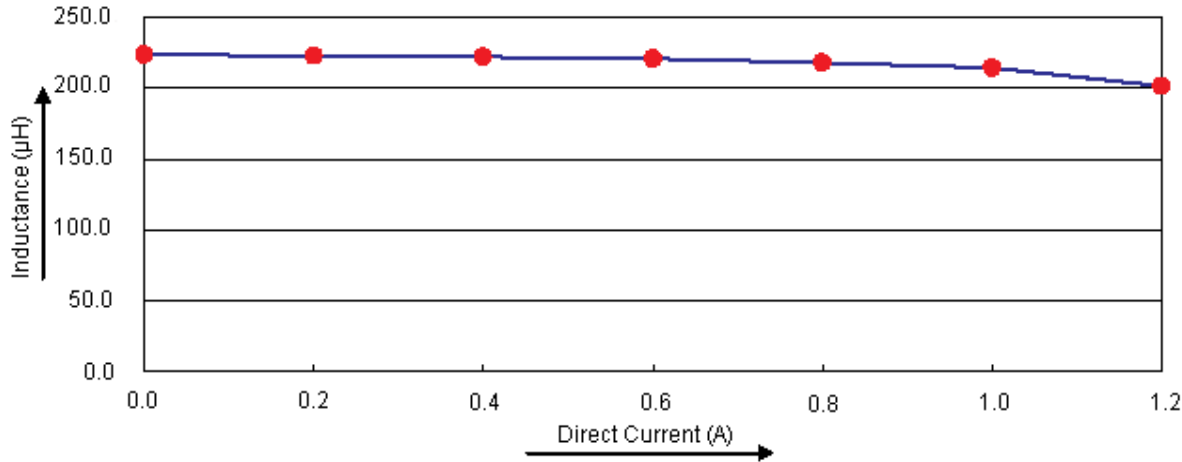
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|-------|-----|-------------|-------|---------|--------|---------|--------|---------|
| - | A | RELEASED | ARU | 20/4/11 | SAN | 20/4/11 | | 04/5/11 |

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} = 0.64 A |
| Specification | 220 ±10% | 480 (Max.) | Temperature rise 40°C (Max.) |
| 1 | 219.78 | 420.3 | OK |
| 2 | 219.15 | 419.8 | |
| 3 | 218.64 | 417.5 | |
| 4 | 218.26 | 418.9 | |
| 5 | 219.26 | 418.5 | |
| Average | 219.02 | 419 | OK |

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| DRAWN BY: | DATE: |
| ARU | 20/04/11 |
| CHECKED BY: | DATE: |
| SAN | 20/04/11 |
| APPROVED BY: | DATE: |
| | 04/05/11 |

DRAWING TITLE:

Inductor - Radial Leaded

| | | | |
|------------------|-----------------------------|-----------------------------------|-----------------|
| SIZE A | DWG NO. M10002998 | ELECTRONIC FILE MCSCH895-221KU | REV A |
| SCALE: NTS | | U.O.M.: mm | SHEET: 2 OF 3 |



PART NO.

MCSCH895-221KU

REVISIONS

| ECN # | REV | DESCRIPTION | DRAWN | DATE | CHECKD | DATE | APPRVD | DATE |
|-------|-----|-------------|-------|---------|--------|---------|--------|---------|
| - | A | RELEASED | ARU | 20/4/11 | SAN | 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 | F6D DR2W7.8 × 9.5 (SW) RCH B3.6 F5.4 P5 |
| 2 | Wire | Ø0.3 mm UEFN/U (155°C) |
| 3 | Solder (Lead-free) | Sn99.3% / Cu0.7% |

Part Number Table

| Description | Part Number |
|-------------------------------------|----------------|
| Inductor, 220µH, 10%, Radial Leaded | MCSCH895-221KU |

<http://www.element14.com>

<http://www.farnell.com>

<http://www.newark.com>

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DRAWING TITLE:

Inductor - Radial Leaded

| | | | |
|------------------|-----------------------------|-----------------------------------|-----------------|
| SIZE A | DWG NO. M10002998 | ELECTRONIC FILE MCSCH895-221KU | REV A |
| SCALE: NTS | U.O.M.: mm | SHEET: 3 OF 3 | |