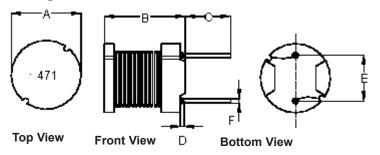


PART NO.

MCSCH895-471KU

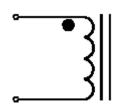
| | REVISIONS | | | | | | | |
|-------|-----------|-------------|-------|---------|--------|---------|--------|---------|
| ECN # | REV | DESCRIPTION | DRAWN | DATE | CHECKD | DATE | APPRVD | DATE |
| - | Α | RELEASED | ARU | 20/4/11 | MEG | 20/4/11 | | 04/5/11 |
| | | | | | | | | |

Configurations and Dimensions



| Α | 7.8 ±0.5 mm | - |
|---|-------------|--------|
| В | 9.5 ±0.5 mm | - |
| С | 5 ±1 mm | - |
| D | 3 mm | (Max.) |
| Е | 5 ±0.5 mm | - |
| F | Ø0.7 mm | (Ref.) |
| | | |

Schematic Diagram



RoHS Compliant

REV

Note:

- 1. Wire UEFN/U (155°C) Ø0.25mm
- 2. 123.5TS (Reference) C.W

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

Electrical Characteristics

| Test Condition | | |
|--|-----|-----------------------------|
| 1 KHz 0.25 V | L | 470 μH ±10% |
| T _a = 25°C | DCR | 890 mΩ (Max.) |
| 1 KHz 0.25 V I _{rms} = 0.43 A | ΔΤ | 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 | Ø0.7 (Ref.) |
| 1 | 7.8 | 9.39 | 5.16 | 1.33 | 4.99 | 0.69 |
| 2 | 7.81 | 9.43 | 5.18 | 1.28 | 5.17 | 0.71 |
| 3 | 7.84 | 9.45 | 5.43 | 1.36 | 4.97 | 0.69 |
| 4 | 7.8 | 9.44 | 5.2 | 1.45 | 5.1 | 0.7 |
| 5 | 7.81 | 9.48 | 5.14 | 1.47 | 5.12 | 0.69 |
| Average | 7.81 | 9.44 | 5.22 | 1.38 | 5.07 | 0.7 |

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| | 04/5/11 |

Inductor - Radial Leaded

SIZE DWG NO. M10003003

ELECTRONIC FILE
MCSCH20E 471

A | MCSCH895-471KU | A | SCALE: NTS | U.O.M.: mm | SHEET: 1 OF 3



PART NO.

MCSCH895-471KU

| REVISIONS | | | | | | | | |
|-----------|-----|-------------|-------|---------|--------|---------|--------|---------|
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| | | | | | | | | |

Electric Characteristics 600.0 500.0 400.0 Inductace (µH) 300.0 200.0 100.0 0.0 0.0 0.2 0.4 0.6 0.8 1.0 1.2 1.4 Direct Current (A) 700.0 600.0 500.0 Inductace (µH) 400.0

| Test Data f | or Electric | al |
|-------------|-------------|----|
| Test | L | |
| lt o mo | | |

| Test Item | L µH | DCR mΩ | ΔΤ |
|---------------|--------------|---------------|---|
| Condition | 1 KHz 0.25 V | at 25°C | 1 KHz 0.25 V I _{rms} = 0.43 A |
| Specification | 470 ±10% | 890 (Max.) | Temperature rise 40°C (Max.) |
| 1 | 468.76 | 850 | |
| 2 | 469.46 | 849.7 | |
| 3 | 468.58 | 832.4 | OK |
| 4 | 468.98 | 838.9 | |
| 5 | 468.3 | 839.8 | |
| Average | 468.82 | 842.16 | ок |

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300.0 200.0

100.0

0.0

TOLERANCES:

10

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100

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|--------------|---------|
| ARU | 20/4/11 |
| CHECKED BY: | DATE: |
| MEG | 20/4/11 |
| APPROVED BY: | DATE: |
| | 04/5/11 |

500

1000

200

Frequency (KHz)

| DRAWING TITLE: | | |
|----------------|-----------------|--------------|
| | Inductor - Radi | al Leaded |
| SIZE DWG NO. | | ELECTRONIC F |

FILE **REV** M10003003 MCSCH895-471KU Α U.O.M.: mm SHEET: 2 OF 3 SCALE: NTS



PART NO.

MCSCH895-471KU

| | REVISIONS | | | | | | | |
|-------|-----------|-------------|-------|---------|--------|---------|--------|---------|
| ECN # | REV | DESCRIPTION | DRAWN | DATE | CHECKD | DATE | APPRVD | DATE |
| - | Α | RELEASED | ARU | 20/4/11 | MEG | 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 | | : 0°C to 40°C : 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 | DCR change | : No abnormality No damage : Within ±5% : Within ±5% | According to J-STD-0: Test condition Test duration Recovery | 20B level 3 : 60°C 60% RH : 40 hrs : 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-0i Steam aging category Steam aging duration Solder Solder temperature Dip time | : 97°C 98% RH | |

Material List

| No. | Item | Material Description |
|-----|--------------------|---------------------------------------|
| 1 | Core | F4F DR2W7.8 × 9.5 (SW) RCH B4 F5.4 P5 |
| 2 | Wire | Ø0.25 mm UEFN/U (155°C) |
| 3 | Solder (Lead-free) | Sn99.3% / Cu0.7% |

Part Number Table

| Description | Part Number | |
|-------------------------------------|----------------|--|
| Inductor, 470µH, 10%, Radial Leaded | MCSCH895-471KU | |

http://www.element14.com

http://www.farnell.com

http://www.newark.com

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| ARU | 20/4/11 | | |
| CHECKED BY: | DATE: | | |
| MEG | 20/4/11 | | |
| APPROVED BY: | DATE: | | |
| | 04/5/11 | | |

| : | DRAWI | NG TITLE: | | | | | | | |
|---|--------------------------|-----------|------------|-----------------|----------------|------|---------|--|--|
| | Inductor - Radial Leaded | | | | | | | | |
| : | SIZE | DWG NO. | | ELECTRONIC FILE | | | REV | | |
| | Α | | M10003003 | МС | MCSCH895-471KU | | | | |
| : | SCALE: NTS | | U.O.M.: mm | | SHEET: | 3 OI | F 3 | | |