



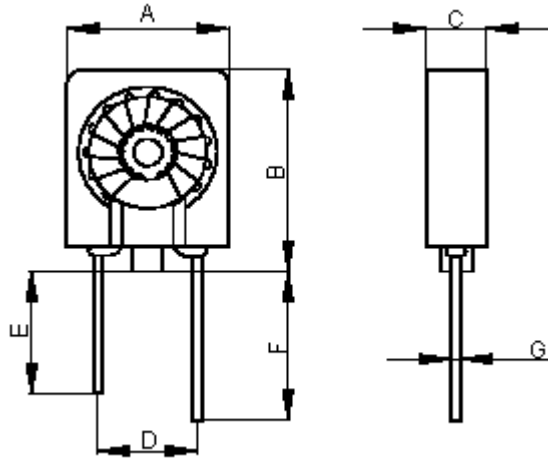
PART NO.

MCAS809535-101U

REVISIONS

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

Configurations and Dimensions

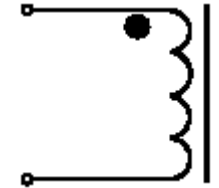


Front View

Bottom View

|   |              |        |
|---|--------------|--------|
| A | 8 mm         | (Max.) |
| B | 9.5 mm       |        |
| C | 3.5 mm       |        |
| D | 5 ±0.5 mm    | -      |
| E | 15.5 ±1 mm   | -      |
| F | 19.5 ±1 mm   | -      |
| G | ∅0.6 ±0.3 mm | -      |

Schematic Diagram



Note:

1. Wire UEFN/U 0.18mm (155°C)
2. 38TS (Reference) C.W



Electrical Characteristics

| Test Condition        |     |                |
|-----------------------|-----|----------------|
| 1 KHz 70 mA           | L   | 100 µH ±35%    |
| T <sub>a</sub> = 25°C | DCR | 170 mΩ (Max.)  |
| 100 MHz               | Z   | 3,000 Ω (Typ.) |

Operating temperature : -25°C to +85°C

Test Data for Mechanical

| Test Item      | A mm        | B mm        | C mm        | D mm        | E mm         | F mm         | G           |
|----------------|-------------|-------------|-------------|-------------|--------------|--------------|-------------|
| Specification  | 8 (Max.)    | 9.5 (Max.)  | 3.5 (Max.)  | 5 ±0.5      | 15.5 ±1      | 19.5 ±1      | ∅0.6 ±0.3   |
| 1              | 7.08        | 8.84        | 3.06        | 5           | 16.1         | 19.13        | 0.6         |
| 2              |             | 8.87        | 3.04        | 5.05        | 16.08        | 19.16        | 0.61        |
| 3              | 7.03        | 8.9         | 3           | 5.12        |              |              | 19.27       |
| 4              | 7.08        | 8.91        | 3.05        | 5.08        | 16.04        | 18.92        | 0.58        |
| 5              | 7.12        | 8.8         | 3.08        | 5.04        | 15.92        | 19.17        | 0.59        |
| <b>Average</b> | <b>7.08</b> | <b>8.86</b> | <b>3.05</b> | <b>5.06</b> | <b>16.04</b> | <b>19.13</b> | <b>0.59</b> |

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| SHA          | 20/04/11 |
| CHECKED BY:  | DATE:    |
| SID          | 20/04/11 |
| APPROVED BY: | DATE:    |
|              | 04/05/11 |

DRAWING TITLE:

EMI Filter

|            |            |                 |     |
|------------|------------|-----------------|-----|
| SIZE       | DWG NO.    | ELECTRONIC FILE | REV |
| A          | M10002660  | MCAS809535-101U | A   |
| SCALE: NTS | U.O.M.: mm | SHEET: 1 OF 3   |     |



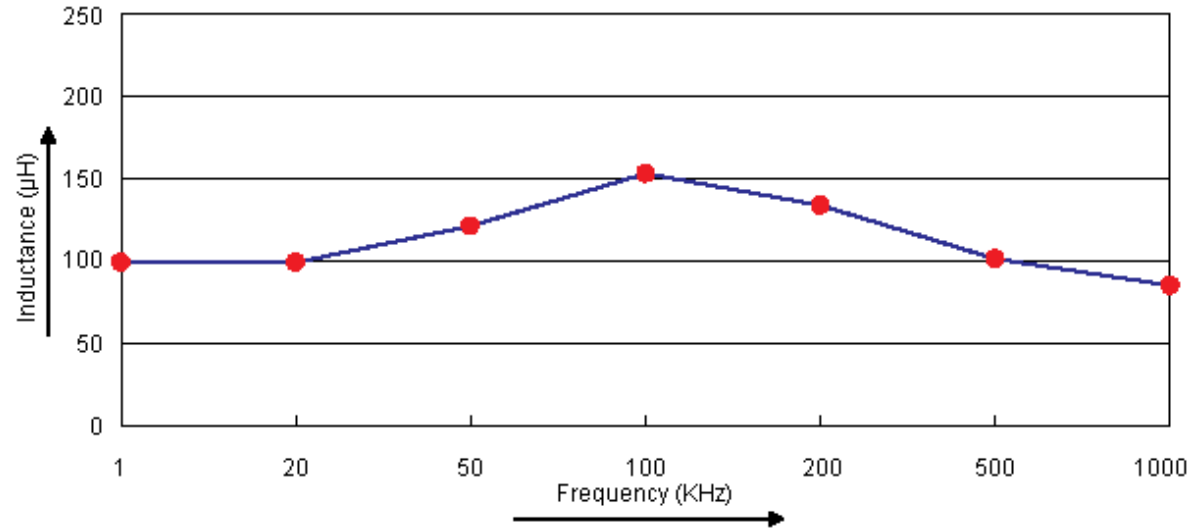
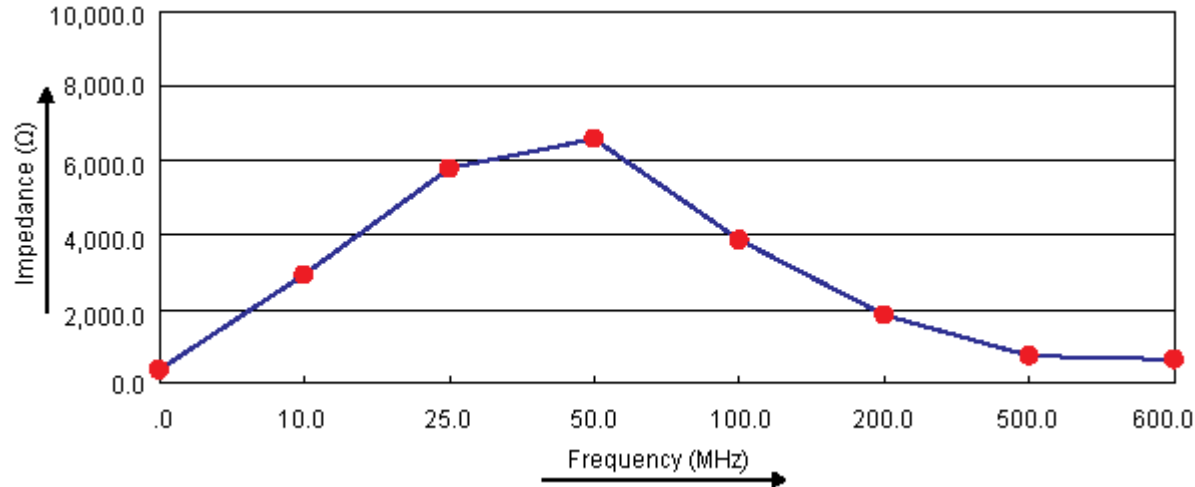
PART NO.

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Electric Characteristics



Test Data for Electrical

| Test Item     | L<br>μH      | DCR<br>mΩ  | Z<br>Ω       |
|---------------|--------------|------------|--------------|
| Condition     | 10 KHz 70 mA | at 25°C    | 100 MHz      |
| Specification | 100 ±35%     | 170 (Max.) | 3,000 (Typ.) |
| 1             | 98.58        | 149.23     | 3,880        |
| 2             | 96.73        | 147.03     | 3,690        |
| 3             | 94.6         | 147.27     | 3,890        |
| 4             | 98.35        | 149.58     | 3,840        |
| 5             | 97.95        | 148.15     | 3,780        |
| Average       | 97.24        | 148.25     | 3,816        |

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|              | 04/05/11 |

DRAWING TITLE:

EMI Filter

|                  |                             |                                    |                 |
|------------------|-----------------------------|------------------------------------|-----------------|
| SIZE<br><b>A</b> | DWG NO.<br><b>M10002660</b> | ELECTRONIC FILE<br>MCAS809535-101U | REV<br><b>A</b> |
| SCALE: NTS       |                             | U.O.M.: mm                         | SHEET: 2 OF 3   |



PART NO.

MCAS809535-101U

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Reliability Test

| Test Item                   | Specifications   | Test Method and Remarks  |
|-----------------------------|--|--|
| Operating temperature range | -25°C to +85°C   | Including temperature rise due to self-generated heat.   |
| Storage condition           | Ambient temperature : 0°C to 40°C<br>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<br>No damage<br>DCR change : Within ±5%<br>Inductance change : Within ±5%  | According to J-STD-020B level 3<br>Test condition : 60°C 60% RH<br>Test duration : 40 hrs<br>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<br>Steam aging category : 97°C 98% RH<br>Steam aging duration : 8 hrs<br>Solder : Lead-free solder<br>Solder temperature : 260 ±5°C<br>Dip time : 5 +0 / -0.5 s                |

Material List

| No. | Item   | Material Description   |
|-----|--------|------------------------|
| 1   | Core   | L43 T4.5 × 1.5 × 3     |
| 2   | Wire   | UEFN/U 0.18 mm (155°C) |
| 3   | Solder | Sn99.3% / Cu0.7%       |
| 4   | Base   | XBA201-1               |

Part Number Table

| Description                       | Part Number     |
|-----------------------------------|-----------------|
| EMI Filter, 100µH min, 500mA, 50V | MCAS809535-101U |

<http://www.element14.com>

<http://www.farnell.com>

<http://www.newark.com>

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20/04/11

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DATE:

04/05/11

DRAWING TITLE:

**EMI Filter**

SIZE

A

DWG NO.

M10002660

ELECTRONIC FILE

MCAS809535-101U

REV

A

SCALE: NTS

U.O.M.: mm

SHEET: 3 OF 3