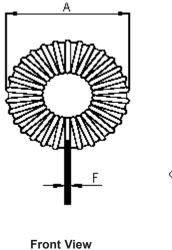
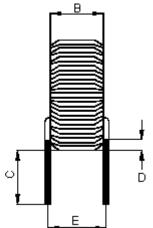
|           | PART NO.             |       |     | REVISIONS   |       |         |        |         |        |         |
|-----------|----------------------|-------|-----|-------------|-------|---------|--------|---------|--------|---------|
| multicomp |                      | ECN # | REV | DESCRIPTION | DRAWN | DATE    | CHECKD | DATE    | APPRVD | DATE    |
| manucomp  | MCAP108018069A-221MU | -     | Α   | RELEASED    | SID   | 20/4/11 | SHA    | 20/4/11 |        | 04/5/11 |
|           |                      |       |     |             |       |         |        |         |        |         |

# **Configurations and Dimensions**

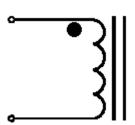




Side View

| A | 26.5 mm    | (Max.)  |
|---|------------|---------|
| В | 14 mm      | (1010.) |
| С | 25 ±2 mm   | -       |
| D | 0 to 3 mm  | -       |
| E | 11.5 ±1 mm | -       |
| F | Ø1 ±0.1 mm | -       |

### Schematic Diagram





Note: 1. Wire UEFN/U (155°C) Ø1mm 2. 69TS (Reference) C.W

#### Test Data for Mechanical

| Test<br>Item  | A<br>mm        | B<br>mm      | C<br>mm | D<br>mm | E<br>mm | F<br>mm |
|---------------|----------------|--------------|---------|---------|---------|---------|
| Specification | 26.5<br>(Max.) | 14<br>(Max.) | 25 ±2   | 0 to 3  | 11.5 ±1 | Ø1 ±0.1 |
| 1             | 24.75          | 12.45        | 25.54   | 1.54    | 11.64   | 0.00    |
| 2             | 24.57          | 12.13        | 25.13   | 1.82    | 11.53   | 0.99    |
| 3             | 24.47          | 11.72        | 24.98   | 1.87    | 11.77   |         |
| 4             | 24.83          | 11.92        | 24.99   | 1.43    | 11 57   | 1       |
| 5             | 24.43          | 11.54        | 25.8    | 1.57    | - 11.57 |         |
| Average       | 24.61          | 11.95        | 25.29   | 1.65    | 11.62   | 1       |

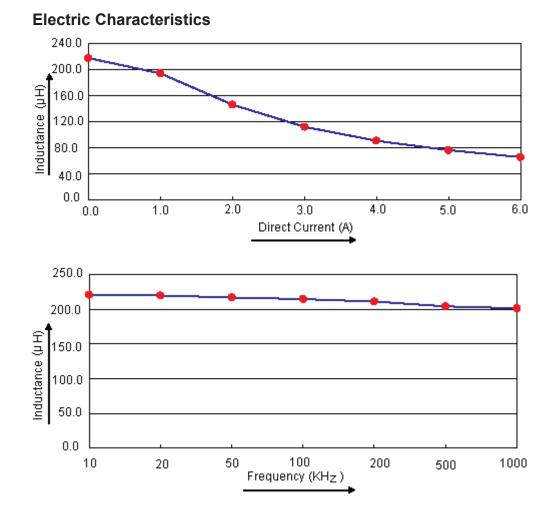
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### **Electrical Characteristics**

| Test Condition                        |     |                              |
|---------------------------------------|-----|------------------------------|
| 1 KHz / 0.25 V                        | L   | 220 µH ±20%                  |
| T <sub>a</sub> = 25°C                 | DCR | 56 mΩ (Max.)                 |
| 1 KHz / 0.25 V I <sub>rms</sub> = 4 A | ΔΤ  | Temperature rise 40°C (Max.) |

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

|           | PART NO.             |       |     | REVISIONS   |       |         |        |         |        |         |
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| multicomp |                      | ECN # | REV | DESCRIPTION | DRAWN | DATE    | CHECKD | DATE    | APPRVD | DATE    |
| manacomp  | MCAP108018069A-221MU | -     | A   | RELEASED    | SID   | 20/4/11 | SHA    | 20/4/11 |        | 04/5/11 |
|           |                      |       |     |             |       |         |        |         |        |         |



## **Test Data for Electrical**

| Test<br>Item  | L<br>µH        | DCR<br>mΩ             | ΔΤ                                       |
|---------------|----------------|-----------------------|--|
| Condition     | 1 KHz / 0.25 V | T <sub>a</sub> = 25°C | 1 KHz / 0.25 V<br>I <sub>rms</sub> = 4 A |
| Specification | 220 ±20%       | 56<br>(Max.)          | Temperature rise 40°C<br>(Max.)          |
| 1             | 219.16         | 43.02                 |  |
| 2             | 225.85         | 41.68                 | _  |
| 3             | 225            | 41.7                  | ОК                                       |
| 4             | 218.44         | 41.75                 |  |
| 5             | 217.96         | 42.84                 |  |
| Average       | 221.28         | 42.2                  | ОК                                       |

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MCAP108018069A-221MU

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|       |     |             |       |         |        |         |        |         |

# **Reliability Test**

| Test Item                   | Specification  | ns  | ٦   | Fest Method and Remarks  |
|-----------------------------|--|---|---|--|
| Operating temperature range | -55°C to +130°C  |   | Including temperature   | rise due to self-generated heat.   |
| Storage condition           | Ambient temperature :<br>Humidity :  | 0°C to 40°C<br>Below 70% RH                             |   | ability of terminal electrodes, care must be taken to<br>ad humidity in the storage area.  |
| Moisture sensitivity        | DCR change :   | No abnormality<br>No damage<br>Within ±5%<br>Within ±5% | According to J-STD-02<br>Test condition<br>Test duration<br>Recovery  | <ul> <li>20B level 3</li> <li>: 60°C 60% RH</li> <li>: 40 hrs</li> <li>: 1 to 2 hours of recovery under the standard condition after the removal from the test chamber.</li> </ul> |
| Solderability               | All termination shall exhil<br>solder coating free from<br>minimum of 95% of the s<br>any individual lead. | defects for a   | According to J-STD-00<br>Steam aging category<br>Steam aging duration<br>Solder<br>Solder temperature<br>Dip time | : 97°C 98% RH  |

# Material List

| No. | ltem               | Material Description        |
|-----|--------------------|-----------------------------|
| 1   | Core               | T80-75-TAF200 (Red / White) |
| 2   | Wire               | Ø1 mm UEFN/U (155°C)        |
| 3   | Solder (Lead-free) | Sn99.3% / Cu0.7%            |

# Part Number Table

| Description Part Number                           |
|---|
| Inductor, 220µH, 20%, 2 Pins MCAP108018069A-221MU |

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|   |  | SHA          | 20/04/11 | Δ              |            |   |          |
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|   |  |              | 04/05/11 | SCALE: NTS     | U.O.M.: mm | SHEET: 3 OF                             | F 3      |