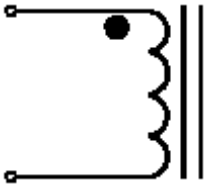
# Inductor

multicomp PRO

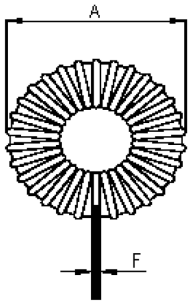
Schematic Diagram



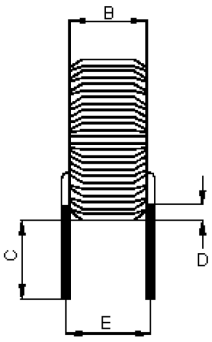
RoHS Compliant

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

## Configurations and Dimensions




Front View




Side View

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

## Test Data for Mechanical

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

## Electrical Characteristics

| Test Condition | | |
|---|---|---|
| 1kHz / 0.25V | L | 220µH ±20% |
| $T_A$ = 25°C | DCR | 56mΩ (Max.) |
| 10kHz / 0.25V Irms = 4A | ΔT | Temperature rise 40°C (Max.) |

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

## 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<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 / -0.5s |

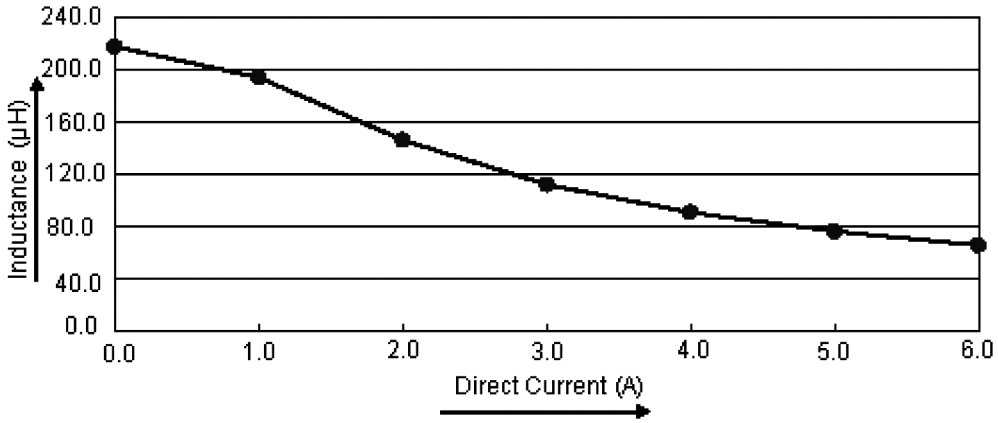
## Test Data for Electrical

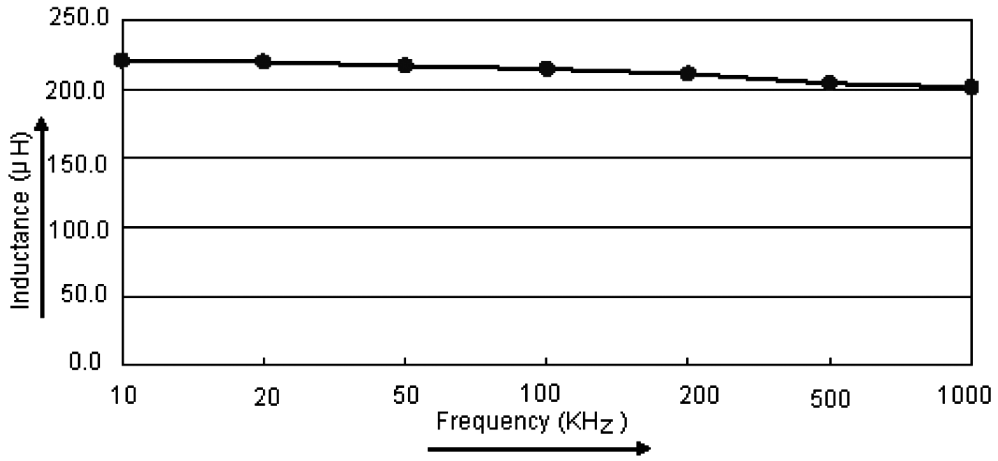
| Test Item | L µH | DCR mΩ | ΔT |
|---|---|---|---|
| Condition | 10kHz / 0.25V | $T_A$ = 25°C | 10kHz / 0.25V<br>Irms = 4A |
| Specification | 220 ±20% | 56 (Max.) | Temperature rise 40°C (Max.) |
| 1 | 219.16 | 43.02 | OK |
| 2 | 225.85 | 41.68 | |
| 3 | 225 | 41.7 | |
| 4 | 218.44 | 41.75 | |
| 5 | 217.96 | 42.84 | |
| **Average** | **221.28** | **42.2** | **OK** |

## Material List

| No. | Item | Material Description |
|---|---|---|
| 1 | Core | T80-75-TAF200 (Red / White) |
| 2 | Wire | Ø1mm UEFN/U (155°C) |
| 3 | Solder (Lead-free) | Sn99.3% / Cu0.7% |

## Electric Characteristics




## Part Number Table

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