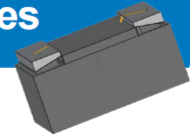


# Wire Wound Chip Power Inductor – MWPU Series



**Operating Temp** ◆  $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$

**Features**

- ◆ Small chip suitable for surface mounting
- ◆ Large inductance with ferrite/alloy material
- ◆ Magnetic shielded

**Applications** ◆ Mobile phones, TWS headsets, smart watches and other portable devices

## Product Identification

|      |      |   |     |   |   |     |
|------|------|---|-----|---|---|-----|
| 1    | 2    | 3 | 4   | 5 | 6 | 7   |
| MWPU | 1005 | A | 1R0 | M | T | □□□ |

| 1    | Type                           |
|------|--------------------------------|
| MWPU | Wire Wound Chip Power Inductor |

| 2    | External Dimensions (L×W) (mm) |
|------|--------------------------------|
| 1005 | 1.1×0.6                        |
| 1608 | 1.65×1.0/1.65×0.9              |

| 3 | Material Code |
|---|---------------|
| F | Ferrite       |
| A | Alloy         |

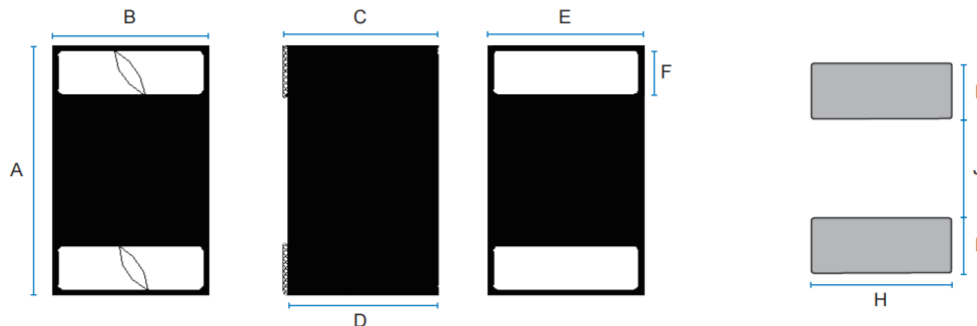
| 4       | Nominal Inductance |
|---------|--------------------|
| Example | Nominal Value      |
| 1R0     | 1.0μH              |
| 4R7     | 4.7μH              |
| 100     | 10μH               |
| 220     | 22μH               |

| 5 | Inductance Tolerance |
|---|----------------------|
| M | ±20%                 |

| 6 | Packing     |
|---|-------------|
| T | Tape & Reel |

| 7                          | Design Code |
|----------------------------|-------------|
| □□□                        | Design Code |
| *Standard product is blank |             |

## Shape and Dimensions



| Unit: mm  |           |           |           |        |        |        |        |        |        |
|-----------|-----------|-----------|-----------|--------|--------|--------|--------|--------|--------|
| Series    | A         | B         | C         | D Typ. | E Ref. | F Ref. | H Ref. | I Ref. | J Ref. |
| MWPU1005A | 1.10±0.10 | 0.60±0.10 | 0.60±0.10 | 0.45   | 0.50   | 0.20   | 0.60   | 0.35   | 0.50   |
| MWPU1608F | 1.65±0.15 | 1.00±0.15 | 1.00±0.15 | 0.85   | 0.80   | 0.30   | 1.00   | 0.50   | 0.83   |
| MWPU1608A | 1.65±0.15 | 0.90±0.15 | 0.90±0.15 | 0.80   | 0.85   | 0.30   | 1.00   | 0.50   | 0.83   |

## Specifications

### MWPU1005A TYPE

| Part Number    | Inductance | Tolerance | L Test Freq. | Min.Self-resonant Frequency | Max. DC Resistance | Max. Heat Rating Current | Typ. Saturation Current |
|----------------|------------|-----------|--------------|-----------------------------|--------------------|--------------------------|-------------------------|
| Units          | μH         | -         | MHz          | MHz                         | Ω                  | mA                       | mA                      |
| Symbol         | L          | -         | Freq.        | S.R.F                       | DCR                | I <sub>r</sub>           | I <sub>sat</sub>        |
| MWPU1005A1R0MT | 1.0        | ±20%      | 1.0          | 120                         | 1.0                | 380                      | 850                     |
| MWPU1005A2R2MT | 2.2        | ±20%      | 1.0          | 90                          | 1.5                | 330                      | 650                     |
| MWPU1005A4R7MT | 4.7        | ±20%      | 1.0          | 45                          | 4.0                | 185                      | 400                     |
| MWPU1005A100MT | 10         | ±20%      | 1.0          | 30                          | 7.5                | 135                      | 300                     |
| MWPU1005A150MT | 15         | ±20%      | 1.0          | 20                          | 10.0               | 120                      | 250                     |

### MWPU1608F TYPE

| Part Number    | Inductance | Tolerance | L Test Freq. | Min.Self-resonant Frequency | Max. DC Resistance | Max. Heat Rating Current | Typ. Saturation Current |
|----------------|------------|-----------|--------------|-----------------------------|--------------------|--------------------------|-------------------------|
| Units          | μH         | -         | MHz          | MHz                         | Ω                  | mA                       | mA                      |
| Symbol         | L          | -         | Freq.        | S.R.F                       | DCR                | I <sub>r</sub>           | I <sub>sat</sub>        |
| MWPU1608F1R0MT | 1.0        | ±20%      | 1.0          | 170                         | 0.25               | 880                      | 800                     |
| MWPU1608F1R5MT | 1.5        | ±20%      | 1.0          | 125                         | 0.28               | 850                      | 730                     |
| MWPU1608F2R2MT | 2.2        | ±20%      | 1.0          | 85                          | 0.50               | 590                      | 560                     |
| MWPU1608F4R7MT | 4.7        | ±20%      | 1.0          | 46                          | 0.75               | 490                      | 410                     |
| MWPU1608F6R8MT | 6.8        | ±20%      | 1.0          | 38                          | 0.90               | 440                      | 360                     |
| MWPU1608F100MT | 10         | ±20%      | 1.0          | 30                          | 1.20               | 400                      | 290                     |
| MWPU1608F150MT | 15         | ±20%      | 1.0          | 20                          | 2.00               | 280                      | 240                     |
| MWPU1608F220MT | 22         | ±20%      | 1.0          | 20                          | 3.00               | 220                      | 190                     |

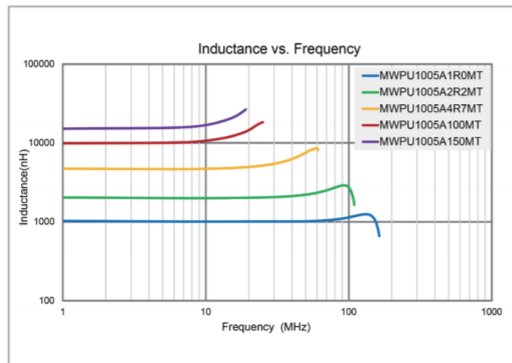
### MWPU1608A TYPE

| Part Number    | Inductance | Tolerance | L Test Freq. | Min.Self-resonant Frequency | Max. DC Resistance | Max. Heat Rating Current | Typ. Saturation Current |
|----------------|------------|-----------|--------------|-----------------------------|--------------------|--------------------------|-------------------------|
| Units          | μH         | -         | MHz          | MHz                         | Ω                  | mA                       | mA                      |
| Symbol         | L          | -         | Freq.        | S.R.F                       | DCR                | I <sub>r</sub>           | I <sub>sat</sub>        |
| MWPU1608AR24MT | 0.24       | ±20%      | 1.0          | 360                         | 0.06               | 1900                     | 5700                    |
| MWPU1608AR47MT | 0.47       | ±20%      | 1.0          | 240                         | 0.17               | 1300                     | 3600                    |
| MWPU1608A1R0MT | 1.0        | ±20%      | 1.0          | 110                         | 0.22               | 1100                     | 2800                    |
| MWPU1608A2R2MT | 2.2        | ±20%      | 1.0          | 51                          | 0.54               | 700                      | 1700                    |
| MWPU1608A4R7MT | 4.7        | ±20%      | 1.0          | 36                          | 1.40               | 420                      | 1150                    |
| MWPU1608A100MT | 10         | ±20%      | 1.0          | 18                          | 2.40               | 320                      | 800                     |

## Typical Electrical Characteristics

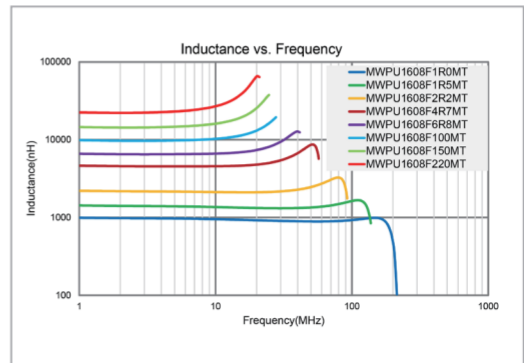
### MWPU1005A TYPE

#### Inductance vs. Frequency Characteristics



### MWPU1608F TYPE

#### Inductance vs. Frequency Characteristics



**Typical  
Electrical  
Characteristics**

**MWPU1608A TYPE  
Inductance vs. Frequency Characteristics**

