

# Multilayer Power Inductor

## CIG10F Series (1608/ EIA 0603)

### APPLICATION

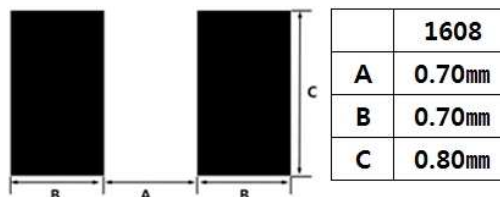
Mobile DSC, DVC, PDA etc. for DC-DC Converter

### FEATURES

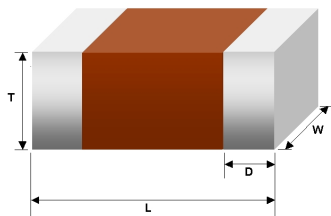
- The smallest multilayer power inductor (1.6mm×0.8mm)
- Much lower Profile than any other series (0.5mm max)
- Low DC resistance
- Magnetically shielded structure
- Free of all RoHS-regulated substances
- Monolithic structure for high reliability



### RECOMMENDED LAND PATTERN



### DIMENSION



| TYPE | Dimension [mm] |          |          |         |
|------|----------------|----------|----------|---------|
|      | L              | W        | T        | D       |
| 10   | 1.6±0.15       | 0.8±0.15 | 0.5 max. | 0.3±0.2 |

### DESCRIPTION

| Part no.     | Size<br>(inch/mm) | Inductance<br>(uH)@1MHz | DC<br>Resistance(Ω) | Rated Current (A)<br>Max. |
|--------------|-------------------|-------------------------|---------------------|---------------------------|
| CIG10FR47MNC | 0603/1608         | 0.47±20%                | 0.20±30 %           | 0.80                      |
| CIG10F1R0MNC | 0603/1608         | 1.0±20%                 | 0.30±30 %           | 0.70                      |
| CIG10F1R5MNC | 0603/1608         | 1.5±20%                 | 0.35±30 %           | 0.60                      |
| CIG10F2R2MNC | 0603/1608         | 2.2±20%                 | 0.45±30 %           | 0.50                      |

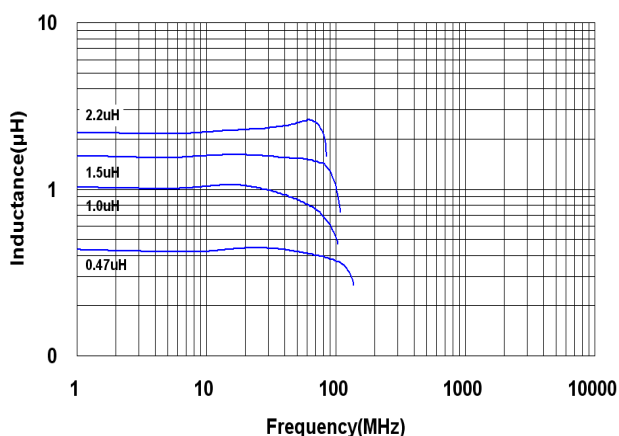
※Rated Current: DC current value when the self-generation of heat rises to 40℃ (Reference ambient temperature:25℃)

※Operating temperature range: -40 to +125℃ (Including self-temperature rise)

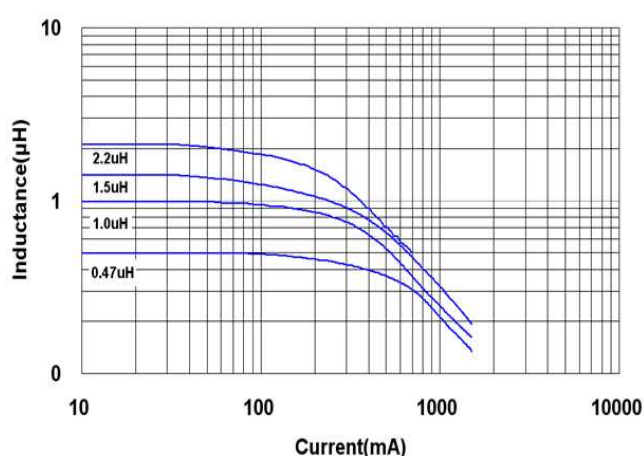
※Test equipment: Agilent :E4991A+16092A

### CHARACTERISTIC DATA

#### 1) Frequency characteristics (Typ.)



#### 2) DC Bias characteristics (Typ.)



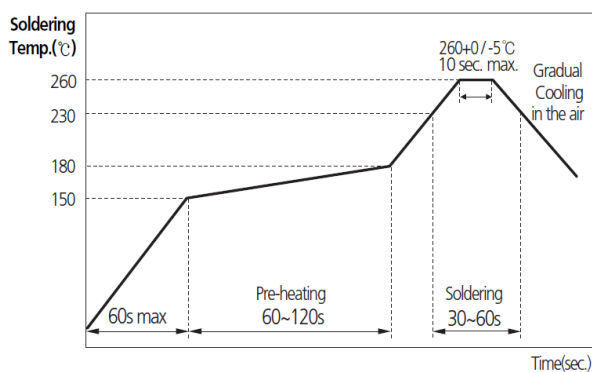
## PRODUCT IDENTIFICATION

| CI  | G   | 10  | F   | 2R2 | M   | N   | C   |
|-----|-----|-----|-----|-----|-----|-----|-----|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |

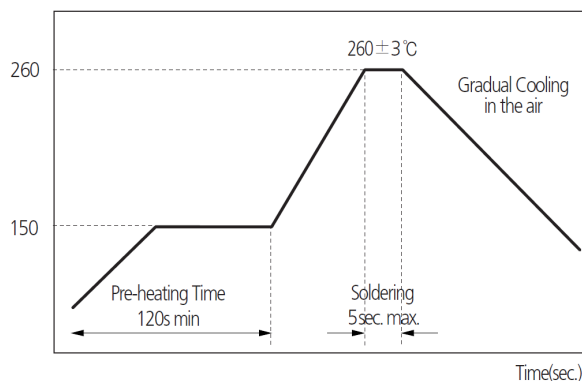
- |                                                                                    |                                         |
|------------------------------------------------------------------------------------|-----------------------------------------|
| (1) Chip Inductor                                                                  | (2) Power Inductor                      |
| (3) Dimension                                                                      | (4) Product Series (F:Low Profile Type) |
| (5) Inductance (R47:0.47uH, 2R2:2.2uH)                                             | (6) Tolerance (M:±20%)                  |
| (7) Thickness option(N:Standard, A:Thinner than standard, B:Thicker than standard) |                                         |
| (8) Packaging(C:paper tape, E:embossed tape)                                       |                                         |

## RECOMMENDED SOLDERING CONDITION

### REFLOW SOLDERING



### FLOW SOLDERING



## PACKAGING

| Packaging Style   | Quantity(pcs/reel) |
|-------------------|--------------------|
| Card Board Taping | 4,000              |



Any data in this sheet are subject to change, modify or discontinue without notice.

The data sheets include the typical data for design reference only. If there is any question regarding the data sheets, please contact our sales personnel or application engineers.