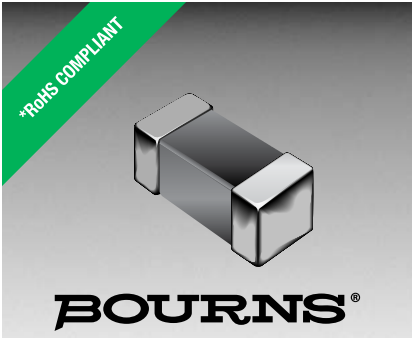




**THE DATASHEET OF  
CV201210-100K**





### Features

- 0805 size
- Magnetic shielding
- Height as low as 0.85 mm
- Nickel barrier
- RoHS compliant\*

### Applications

- Prevention of electromagnetic interference to signals on the secondary side of electronic equipment

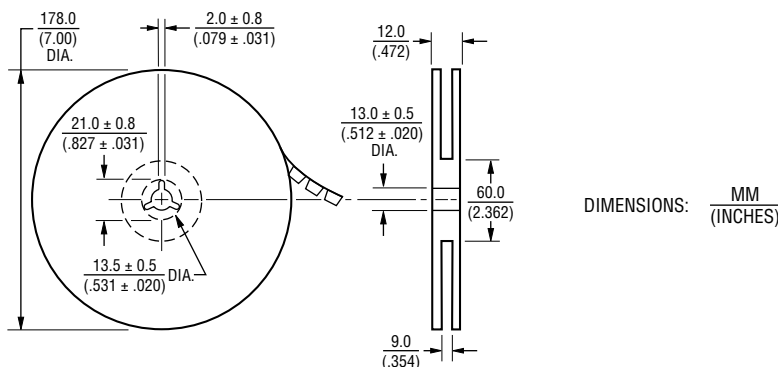
## CV201210 Series - Ferrite Multi-Layer Chip Inductors

### Electrical Specifications

| Bourns® Part No. | Inductance |        | Q  | Test Freq. (MHz) | SRF (MHz) | DCR (mΩ) | I rms (mA) |
|------------------|------------|--------|----|------------------|-----------|----------|------------|
|                  | μH         | Tol. % |    |                  |           |          |            |
| CV201210-47NK    | 0.047      | ±10    | 15 | 50*              | 320       | 200      | 300        |
| CV201210-68NK    | 0.068      | ±10    | 15 | 50               | 280       | 200      | 300        |
| CV201210-82NK    | 0.082      | ±10    | 15 | 50               | 255       | 200      | 300        |
| CV201210-R10K    | 0.10       | ±10    | 20 | 25               | 235       | 300      | 250        |
| CV201210-R12K    | 0.12       | ±10    | 20 | 25               | 220       | 300      | 250        |
| CV201210-R15K    | 0.15       | ±10    | 20 | 25               | 200       | 400      | 250        |
| CV201210-R18K    | 0.18       | ±10    | 20 | 25               | 185       | 400      | 250        |
| CV201210-R22K    | 0.22       | ±10    | 20 | 25               | 170       | 500      | 250        |
| CV201210-R27K    | 0.27       | ±10    | 20 | 25               | 150       | 500      | 250        |
| CV201210-R33K    | 0.33       | ±10    | 20 | 25               | 145       | 550      | 250        |
| CV201210-R39K    | 0.39       | ±10    | 25 | 25               | 135       | 650      | 200        |
| CV201210-R47K    | 0.47       | ±10    | 25 | 25               | 125       | 650      | 200        |
| CV201210-R56K    | 0.56       | ±10    | 25 | 25               | 115       | 750      | 150        |
| CV201210-R68K    | 0.68       | ±10    | 25 | 25               | 105       | 800      | 150        |
| CV201210-R82K    | 0.82       | ±10    | 25 | 25               | 100       | 1000     | 150        |
| CV201210-1R0K    | 1.0        | ±10    | 45 | 10               | 75        | 400      | 50         |
| CV201210-1R2K    | 1.2        | ±10    | 45 | 10               | 65        | 500      | 50         |
| CV201210-1R5K    | 1.5        | ±10    | 45 | 10               | 60        | 500      | 50         |
| CV201210-1R8K    | 1.8        | ±10    | 45 | 10               | 55        | 600      | 50         |
| CV201210-2R2K    | 2.2        | ±10    | 45 | 10               | 50        | 650      | 30         |
| CV201210-2R7K    | 2.7        | ±10    | 45 | 10               | 45        | 750      | 30         |
| CV201210-3R3K    | 3.3        | ±10    | 45 | 10               | 41        | 800      | 30         |
| CV201210-3R9K    | 3.9        | ±10    | 45 | 10               | 38        | 900      | 30         |
| CV201210-4R7K    | 4.7        | ±10    | 45 | 10               | 35        | 1000     | 30         |
| CV201210-5R6K    | 5.6        | ±10    | 45 | 4                | 32        | 900      | 15         |
| CV201210-6R8K    | 6.8        | ±10    | 45 | 4                | 29        | 1000     | 15         |
| CV201210-8R2K    | 8.2        | ±10    | 45 | 4                | 26        | 1100     | 15         |
| CV201210-100K    | 10         | ±10    | 45 | 2                | 24        | 1150     | 15         |
| CV201210-120K    | 12         | ±10    | 45 | 2                | 22        | 1250     | 5          |
| CV201210-150K    | 15         | ±10    | 30 | 1                | 19        | 800      | 5          |
| CV201210-180K    | 18         | ±10    | 30 | 1                | 18        | 900      | 5          |
| CV201210-220K    | 22         | ±10    | 30 | 1                | 16        | 1100     | 5          |
| CV201210-270K    | 27         | ±10    | 30 | 1                | 14        | 1150     | 5          |
| CV201210-330K    | 33         | ±10    | 30 | 0.4              | 13        | 1250     | 5          |

\*Test Frequency for L (inductance) of CV201210-47NK is 10 MHz.

### Packaging Specifications



### Additional Information

Click these links for more information:



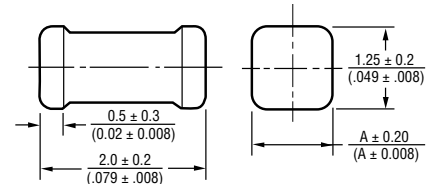
### General Specifications

Inductance Test Voltage ..... 60 mV  
 Temperature Rise ..... 30 °C max. at rated current  
 Operating Temperature ..... -55 °C to +125 °C  
 Storage Temperature ..... -55 °C to +125 °C  
 Reflow Soldering ... 230 °C, 50 sec. max.  
 Resistance to Soldering Heat ..... +260 °C, 10 seconds

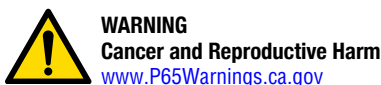
### Materials

Base Material..... Ferrite  
 Terminal..... Ag/Ni/Sn  
 Packaging  
 0.85 mm Product Height ..... 4,000 pcs. per reel  
 1.25 mm Product Height ..... 2,000 pcs. per reel

### Product Dimensions



| Model                               | Dim. A          |
|-------------------------------------|-----------------|
| CV201210-47NK through CV201210-R39K | 0.85<br>(0.033) |
| CV201210-R47K through CV201210-R82K | 1.25<br>(0.050) |
| CV201210-1R0K through CV201210-2R2K | 0.85<br>(0.033) |
| CV201210-2R7K through CV201210-330K | 1.25<br>(0.050) |

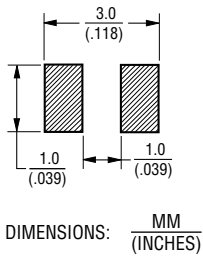


\* RoHS Directive 2015/863, Mar 31, 2015 and Annex. Specifications are subject to change without notice. Users should verify actual device performance in their specific applications. The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at [www.bourns.com/docs/legal/disclaimer.pdf](http://www.bourns.com/docs/legal/disclaimer.pdf).

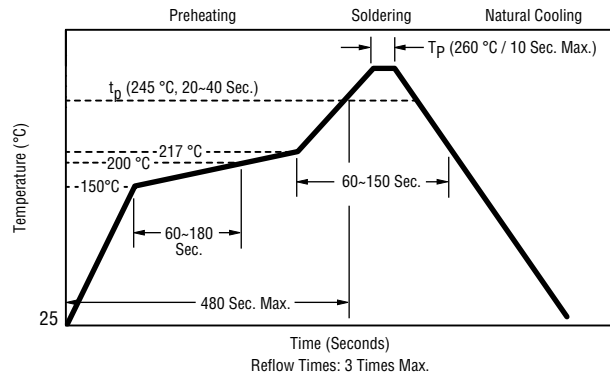
# CV201210 Series - Ferrite Multi-Layer Chip Inductors

**BOURNS®**

## Recommended Layout

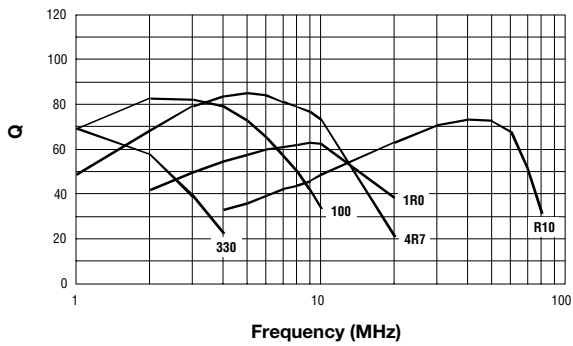


## Solder Profile

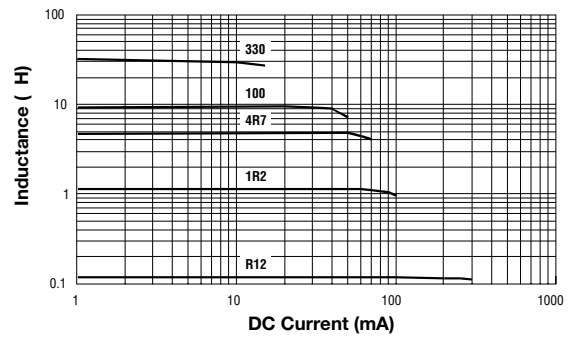


## Electrical Specifications

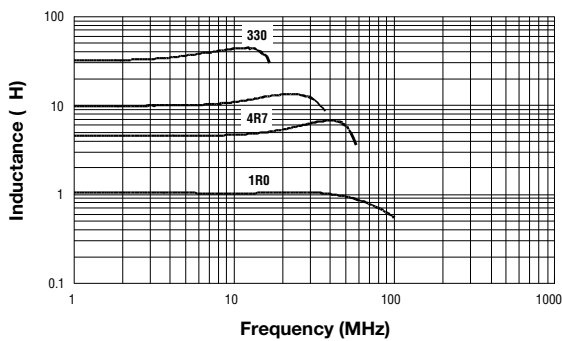
### Q Characteristics



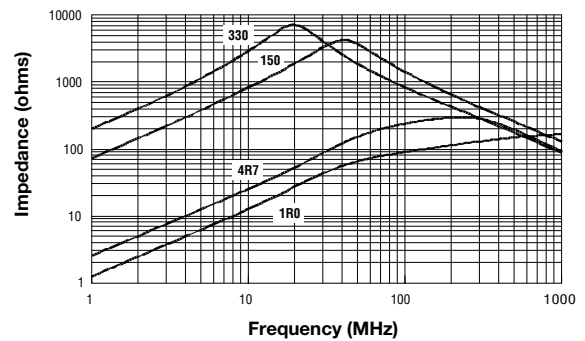
### DC Bias Characteristics



### Inductance Characteristics



### Impedance Characteristics



REV. 04/21

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Users should verify actual device performance in their specific applications.

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