

## Features

- 0805 size
- Available in E12 series
- High Q up to 80 typ.
- High operating temperature of 125 °C
- Small size of only 2.0 mm
- RoHS compliant\*

## Applications

- Mobile phones
- Cellular phones
- CTV, VCR, HIC, FDD

# CW201212 Series - High Q Chip Inductors

### Electrical Specifications

| Bourns® Part No. | Inductance |        | Q  | Test Freq. (MHz) |      | SRF (MHz) | RDC (Ohms) |      | I rms (mA) |
|------------------|------------|--------|----|------------------|------|-----------|------------|------|------------|
|                  | nH         | Tol. % |    | Min.             | L    |           | Q          | Min. |            |
| CW201212-2N2J    | 2.2        | ±5     | 50 | 250              | 1000 | 6000      | 0.06       | 600  |            |
| CW201212-2N7J    | 2.7        | ±5     | 35 | 250              | 1000 | 6000      | 0.08       | 600  |            |
| CW201212-2N8J    | 2.8        | ±5     | 32 | 250              | 1000 | 6000      | 0.06       | 800  |            |
| CW201212-3N3J    | 3.3        | ±5     | 30 | 250              | 1500 | 6000      | 0.08       | 600  |            |
| CW201212-3N9J    | 3.9        | ±5     | 60 | 250              | 1000 | 6000      | 0.06       | 600  |            |
| CW201212-4N7J    | 4.7        | ±5     | 60 | 250              | 1000 | 5800      | 0.06       | 600  |            |
| CW201212-5N6J    | 5.6        | ±5     | 60 | 250              | 1000 | 5800      | 0.08       | 600  |            |
| CW201212-6N8J    | 6.8        | ±5     | 60 | 250              | 1000 | 5800      | 0.06       | 600  |            |
| CW201212-8N2J    | 8.2        | ±5     | 60 | 250              | 1000 | 5500      | 0.06       | 600  |            |
| CW201212-10NJ    | 10         | ±5     | 60 | 250              | 500  | 4800      | 0.08       | 600  |            |
| CW201212-12NJ    | 12         | ±5     | 60 | 250              | 500  | 4100      | 0.08       | 600  |            |
| CW201212-15NJ    | 15         | ±5     | 60 | 250              | 500  | 3600      | 0.08       | 600  |            |
| CW201212-18NJ    | 18         | ±5     | 60 | 250              | 500  | 3400      | 0.08       | 600  |            |
| CW201212-22NJ    | 22         | ±5     | 60 | 250              | 500  | 3300      | 0.10       | 600  |            |
| CW201212-27NJ    | 27         | ±5     | 60 | 250              | 500  | 2600      | 0.12       | 600  |            |
| CW201212-33NJ    | 33         | ±5     | 60 | 250              | 500  | 2400      | 0.15       | 500  |            |
| CW201212-39NJ    | 39         | ±5     | 60 | 250              | 500  | 2100      | 0.18       | 500  |            |
| CW201212-47NJ    | 47         | ±5     | 60 | 200              | 500  | 1700      | 0.15       | 500  |            |
| CW201212-56NJ    | 56         | ±5     | 60 | 200              | 500  | 1600      | 0.25       | 500  |            |
| CW201212-68NJ    | 68         | ±5     | 60 | 200              | 500  | 1450      | 0.27       | 500  |            |
| CW201212-82NJ    | 82         | ±5     | 60 | 150              | 500  | 1350      | 0.32       | 500  |            |
| CW201212-R10J    | 100        | ±5     | 60 | 150              | 500  | 1200      | 0.43       | 400  |            |
| CW201212-R12J    | 120        | ±5     | 50 | 150              | 250  | 1100      | 0.48       | 400  |            |
| CW201212-R15J    | 150        | ±5     | 50 | 100              | 250  | 950       | 0.67       | 400  |            |
| CW201212-R18J    | 180        | ±5     | 50 | 100              | 250  | 900       | 0.85       | 350  |            |
| CW201212-R22J    | 220        | ±5     | 50 | 100              | 250  | 860       | 1.10       | 300  |            |
| CW201212-R27J    | 270        | ±5     | 45 | 100              | 250  | 850       | 1.46       | 250  |            |
| CW201212-R33J    | 330        | ±5     | 45 | 100              | 250  | 800       | 1.65       | 200  |            |
| CW201212-R39J    | 390        | ±5     | 45 | 100              | 250  | 780       | 2.20       | 170  |            |
| CW201212-R47J    | 470        | ±5     | 33 | 50               | 100  | 375       | 1.72       | 250  |            |
| CW201212-R56J    | 560        | ±5     | 23 | 25               | 50   | 340       | 1.90       | 230  |            |
| CW201212-R68J    | 680        | ±5     | 23 | 25               | 50   | 270       | 2.05       | 190  |            |
| CW201212-R82J    | 820        | ±5     | 23 | 25               | 50   | 230       | 2.30       | 180  |            |
| CW201212-R91J    | 910        | ±5     | 22 | 25               | 50   | 220       | 2.50       | 150  |            |

Note: 2 % tolerance available for inductance ranges of 12 nH and above.  
Replace "J" with "G".

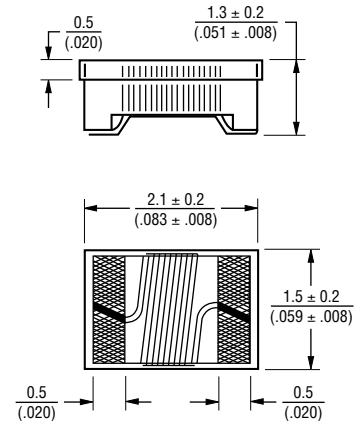
### General Specifications

Temperature Rise ..... 40 °C max. at rated current  
 Operating Temperature ..... -40 °C to +125 °C  
 Storage Temperature ..... -40 °C to +125 °C  
 Reflow Soldering .. 230 °C, 50 sec. max.  
 Resistance to Soldering Heat ..... +260 °C, 5 seconds  
 Moisture Sensitivity Level ..... 2  
 ESD Classification (HBM)..... N/A

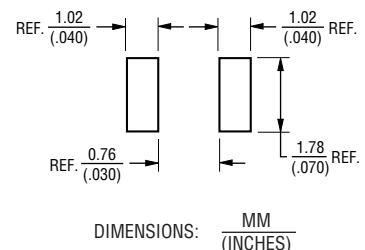
### Materials

Core Material  
 -2N2J through -R39J.....Ceramic  
 -R47J through -R91J.....Ferrite  
 Wire ..... Enameled copper (1W1E180)  
 Terminal ..... Mo/Mn+Ni+Au  
 Packaging ..... 2,000 pcs. per reel

### Product Dimensions



### Recommended Layout



**WARNING Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)**

\*RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.

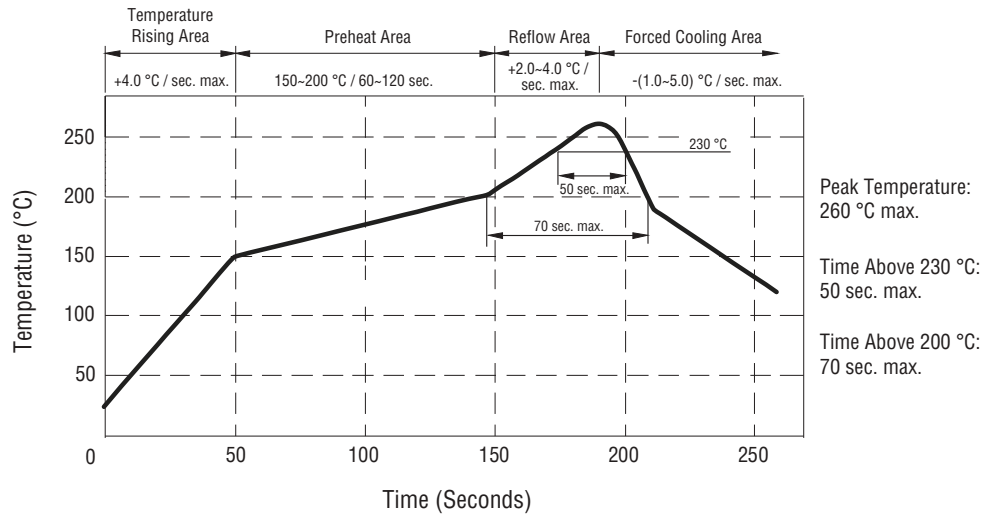
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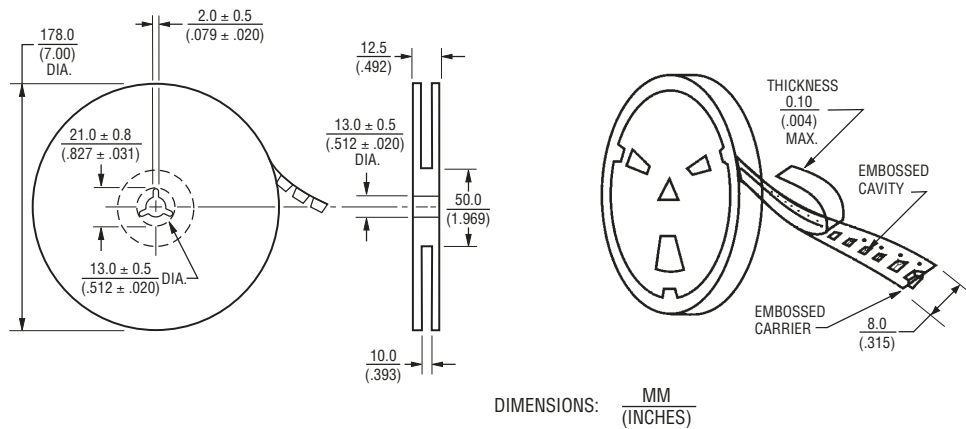
# CW201212 Series - High Q Chip Inductors

**BOURNS®**

## Soldering Profile



## Packaging Specifications



REV. 05/18

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