

Features

- Ceramic core provides stable electrical characteristics
- High self-resonant frequency
- AEC-Q200 compliant
- RoHS compliant* and halogen free**

CW161009A Series – 0603 Chip Inductors

Electrical Specifications @ 25 °C

| Bourns® Part No. | Inductance | | Q | Test Freq. (MHz) | | SRF (MHz) | DCR (Ohms) | I _{rms} (mA) |
|------------------|------------|---------|----|------------------|-----|-----------|------------|-----------------------|
| | L (nH) | Tol. | | Min. | L | | | |
| CW161009A-1N6D | 1.6 | ±0.3 nH | 18 | 250 | 250 | 12500 | 0.030 | 700 |
| CW161009A-1N8D | 1.8 | ±0.3 nH | 16 | 250 | 250 | 8500 | 0.045 | 700 |
| CW161009A-2N2D | 2.2 | ±0.3 nH | 13 | 250 | 250 | 8500 | 0.110 | 700 |
| CW161009A-3N3J | 3.3 | ±5 % | 35 | 250 | 250 | 6000 | 0.045 | 700 |
| CW161009A-3N6J | 3.6 | ±5 % | 22 | 250 | 250 | 6000 | 0.070 | 700 |
| CW161009A-3N9J | 3.9 | ±5 % | 22 | 250 | 250 | 6900 | 0.070 | 700 |
| CW161009A-4N3J | 4.3 | ±5 % | 22 | 250 | 250 | 5900 | 0.070 | 700 |
| CW161009A-4N7J | 4.7 | ±5 % | 20 | 250 | 250 | 5800 | 0.080 | 700 |
| CW161009A-5N1J | 5.1 | ±5 % | 18 | 250 | 250 | 5700 | 0.150 | 700 |
| CW161009A-5N6J | 5.6 | ±5 % | 16 | 250 | 250 | 5500 | 0.190 | 700 |
| CW161009A-6N2J | 6.2 | ±5 % | 25 | 250 | 250 | 5800 | 0.100 | 700 |
| CW161009A-6N8J | 6.8 | ±5 % | 27 | 250 | 250 | 5800 | 0.100 | 700 |
| CW161009A-7N5J | 7.5 | ±5 % | 28 | 250 | 250 | 4800 | 0.100 | 700 |
| CW161009A-8N2J | 8.2 | ±5 % | 28 | 250 | 250 | 4700 | 0.100 | 700 |
| CW161009A-8N7J | 8.7 | ±5 % | 28 | 250 | 250 | 4600 | 0.100 | 700 |
| CW161009A-9N5J | 9.5 | ±5 % | 28 | 250 | 250 | 5400 | 0.100 | 700 |
| CW161009A-10NJ | 10.0 | ±5 % | 31 | 250 | 250 | 4800 | 0.100 | 700 |
| CW161009A-11NJ | 11.0 | ±5 % | 30 | 250 | 250 | 4000 | 0.100 | 700 |
| CW161009A-12NJ | 12.0 | ±5 % | 32 | 250 | 250 | 4000 | 0.100 | 700 |
| CW161009A-13NJ | 13.0 | ±5 % | 38 | 250 | 250 | 3600 | 0.100 | 700 |
| CW161009A-15NJ | 15.0 | ±5 % | 35 | 250 | 250 | 4000 | 0.120 | 700 |
| CW161009A-16NJ | 16.0 | ±5 % | 35 | 250 | 250 | 3300 | 0.120 | 700 |
| CW161009A-18NJ | 18.0 | ±5 % | 35 | 250 | 250 | 3100 | 0.120 | 700 |
| CW161009A-20NJ | 20.0 | ±5 % | 35 | 250 | 250 | 3100 | 0.120 | 700 |
| CW161009A-22NJ | 22.0 | ±5 % | 35 | 250 | 250 | 3000 | 0.150 | 700 |
| CW161009A-23NJ | 23.0 | ±5 % | 38 | 250 | 250 | 2850 | 0.140 | 700 |
| CW161009A-24NJ | 24.0 | ±5 % | 35 | 250 | 250 | 2650 | 0.140 | 700 |
| CW161009A-27NJ | 27.0 | ±5 % | 35 | 250 | 250 | 2800 | 0.200 | 600 |
| CW161009A-30NJ | 30.0 | ±5 % | 37 | 250 | 250 | 2250 | 0.144 | 600 |
| CW161009A-33NJ | 33.0 | ±5 % | 36 | 250 | 250 | 2300 | 0.200 | 600 |
| CW161009A-36NJ | 36.0 | ±5 % | 36 | 250 | 250 | 2080 | 0.200 | 600 |
| CW161009A-39NJ | 39.0 | ±5 % | 36 | 250 | 250 | 2200 | 0.210 | 600 |
| CW161009A-43NJ | 43.0 | ±5 % | 38 | 250 | 250 | 2000 | 0.220 | 600 |
| CW161009A-47NJ | 47.0 | ±5 % | 35 | 200 | 200 | 2000 | 0.230 | 600 |
| CW161009A-51NJ | 51.0 | ±5 % | 32 | 200 | 200 | 1950 | 0.240 | 600 |
| CW161009A-56NJ | 56.0 | ±5 % | 32 | 200 | 200 | 1900 | 0.250 | 600 |
| CW161009A-68NJ | 68.0 | ±5 % | 32 | 200 | 200 | 1700 | 0.350 | 600 |
| CW161009A-72NJ | 72.0 | ±5 % | 34 | 150 | 150 | 1700 | 0.490 | 400 |
| CW161009A-82NJ | 82.0 | ±5 % | 30 | 150 | 150 | 1700 | 0.580 | 400 |
| CW161009A-R10J | 100.0 | ±5 % | 34 | 150 | 150 | 1400 | 0.580 | 400 |
| CW161009A-R11J | 110.0 | ±5 % | 33 | 150 | 150 | 1350 | 0.610 | 300 |
| CW161009A-R12J | 120.0 | ±5 % | 30 | 150 | 150 | 1300 | 0.650 | 300 |
| CW161009A-R15J | 150.0 | ±5 % | 30 | 100 | 100 | 990 | 0.850 | 280 |
| CW161009A-R18J | 180.0 | ±5 % | 25 | 100 | 100 | 990 | 1.000 | 250 |
| CW161009A-R22J | 220.0 | ±5 % | 25 | 100 | 100 | 900 | 1.800 | 250 |
| CW161009A-R27J | 270.0 | ±5 % | 25 | 100 | 100 | 822 | 2.100 | 200 |
| CW161009A-R33J | 330.0 | ±5 % | 25 | 100 | 100 | 500 | 2.300 | 150 |
| CW161009A-R39J | 390.0 | ±5 % | 25 | 100 | 100 | 350 | 2.900 | 130 |

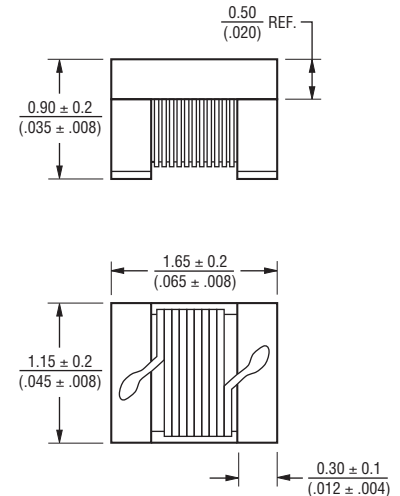
General Specifications

Operating Temperature-40 °C to +125 °C
(Temperature rise included)
Storage Temperature-40 °C to +125 °C
Temperature Rise 15 °C at rated I_{rms}
Moisture Sensitivity Level 1
ESD Classification (HBM)..... N/A

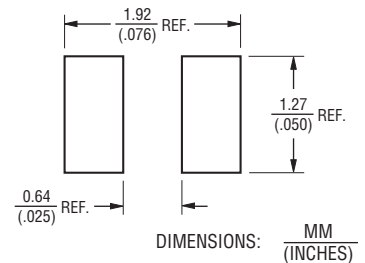
Materials

Core MaterialCeramic
WireEnameled copper (Class H)
Terminal Mo/Mn/Ni/Au
Packaging 3,000 pcs. per 7-inch reel

Product Dimensions



Recommended Layout



WARNING Cancer and Reproductive Harm
www.P65Warnings.ca.gov

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

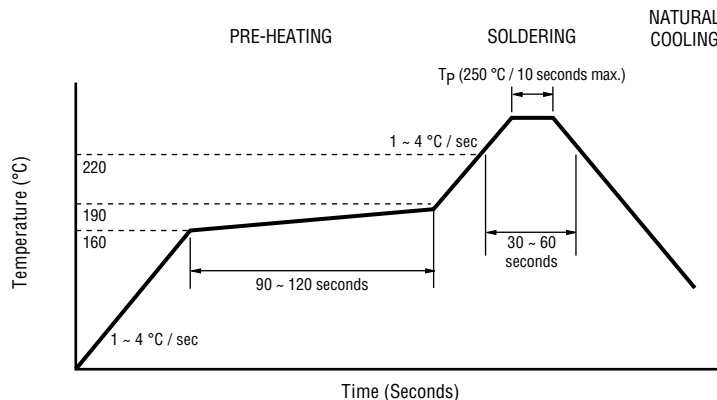
** Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.

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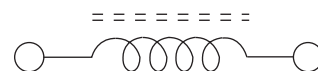
CW161009A Series – 0603 Chip Inductors

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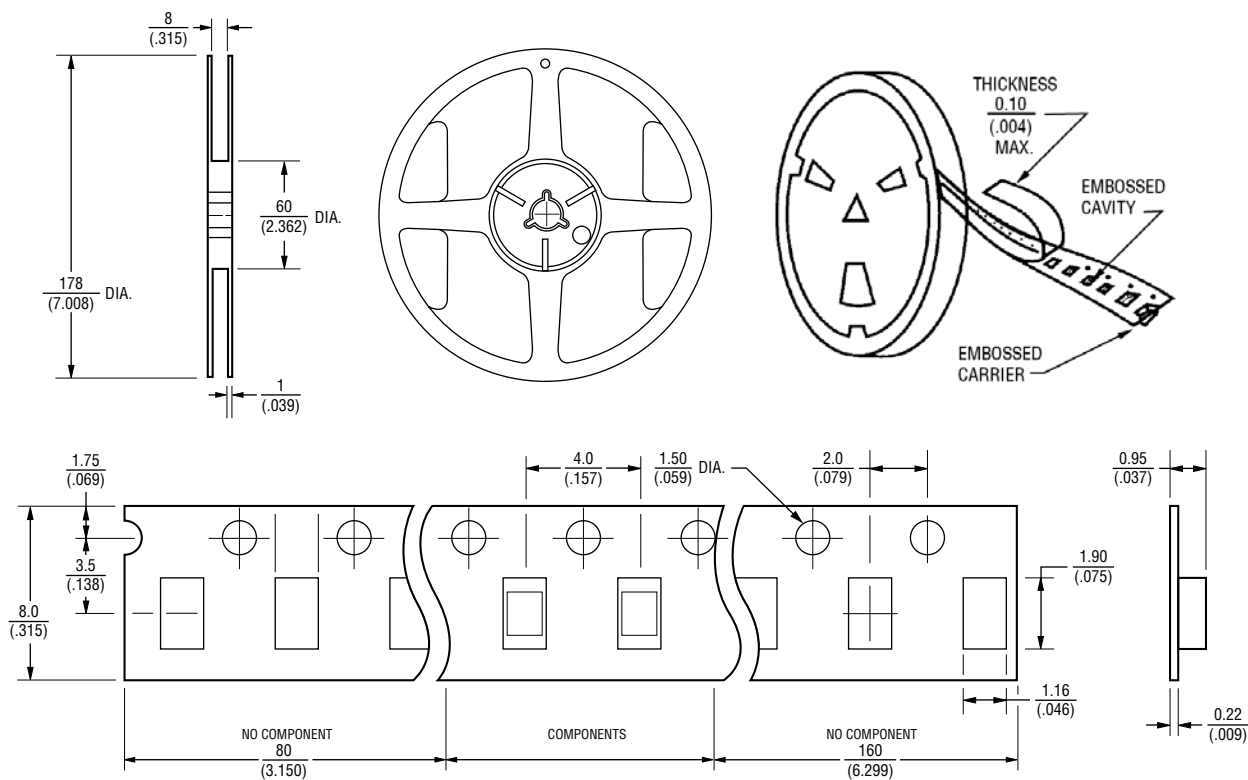
Solder Profile



Schematic



Packaging Specifications



DIMENSIONS: $\frac{\text{MM}}{\text{(INCHES)}}$

USER DIRECTION OF FEED \rightarrow
QTY: 3,000 PCS PER REEL

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