

Features

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

CW105550A Series – 0402 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 | | | |
| CW105550A-1N0D | 1.0 | ±0.3 nH | 13 | 250 | 250 | 6000 | 0.045 | 1360 |
| CW105550A-1N5D | 1.5 | ±0.3 nH | 16 | 250 | 250 | 6000 | 0.070 | 1040 |
| CW105550A-1N9D | 1.9 | ±0.3 nH | 16 | 250 | 250 | 6000 | 0.070 | 1040 |
| CW105550A-2N0D | 2.0 | ±0.3 nH | 16 | 250 | 250 | 6000 | 0.070 | 1040 |
| CW105550A-2N2D | 2.2 | ±0.3 nH | 18 | 250 | 250 | 6000 | 0.070 | 960 |
| CW105550A-2N4D | 2.4 | ±0.3 nH | 16 | 250 | 250 | 6000 | 0.068 | 790 |
| CW105550A-2N7D | 2.7 | ±0.3 nH | 16 | 250 | 250 | 6000 | 0.120 | 860 |
| CW105550A-3N3J | 3.3 | ±5 % | 20 | 250 | 250 | 6000 | 0.066 | 840 |
| CW105550A-3N6J | 3.6 | ±5 % | 20 | 250 | 250 | 6000 | 0.066 | 840 |
| CW105550A-3N9J | 3.9 | ±5 % | 20 | 250 | 250 | 5800 | 0.066 | 840 |
| CW105550A-4N3J | 4.3 | ±5 % | 18 | 250 | 250 | 6000 | 0.091 | 700 |
| CW105550A-4N7J | 4.7 | ±5 % | 15 | 250 | 250 | 4775 | 0.130 | 640 |
| CW105550A-5N1J | 5.1 | ±5 % | 23 | 250 | 250 | 5800 | 0.083 | 800 |
| CW105550A-5N6J | 5.6 | ±5 % | 23 | 250 | 250 | 5800 | 0.083 | 760 |
| CW105550A-6N2J | 6.2 | ±5 % | 23 | 250 | 250 | 5800 | 0.083 | 760 |
| CW105550A-6N8J | 6.8 | ±5 % | 20 | 250 | 250 | 4800 | 0.104 | 680 |
| CW105550A-7N5J | 7.5 | ±5 % | 25 | 250 | 250 | 5800 | 0.104 | 680 |
| CW105550A-8N2J | 8.2 | ±5 % | 25 | 250 | 250 | 4400 | 0.200 | 680 |
| CW105550A-8N7J | 8.7 | ±5 % | 18 | 250 | 250 | 4100 | 0.104 | 480 |
| CW105550A-9N0J | 9.0 | ±5 % | 25 | 250 | 250 | 4160 | 0.200 | 680 |
| CW105550A-9N5J | 9.5 | ±5 % | 18 | 250 | 250 | 4000 | 0.200 | 680 |
| CW105550A-10NJ | 10 | ±5 % | 23 | 250 | 250 | 3900 | 0.195 | 480 |
| CW105550A-11NJ | 11 | ±5 % | 26 | 250 | 250 | 3680 | 0.120 | 640 |
| CW105550A-12NJ | 12 | ±5 % | 26 | 250 | 250 | 3600 | 0.120 | 640 |
| CW105550A-13NJ | 13 | ±5 % | 24 | 250 | 250 | 3450 | 0.210 | 560 |
| CW105550A-15NJ | 15 | ±5 % | 26 | 250 | 250 | 3280 | 0.172 | 560 |
| CW105550A-16NJ | 16 | ±5 % | 24 | 250 | 250 | 3100 | 0.220 | 560 |
| CW105550A-18NJ | 18 | ±5 % | 25 | 250 | 250 | 3100 | 0.230 | 520 |
| CW105550A-19NJ | 19 | ±5 % | 26 | 250 | 250 | 3040 | 0.202 | 480 |
| CW105550A-20NJ | 20 | ±5 % | 25 | 250 | 250 | 3000 | 0.250 | 420 |
| CW105550A-22NJ | 22 | ±5 % | 25 | 250 | 250 | 2800 | 0.300 | 400 |
| CW105550A-23NJ | 23 | ±5 % | 26 | 250 | 250 | 2720 | 0.214 | 400 |
| CW105550A-24NJ | 24 | ±5 % | 25 | 250 | 250 | 2700 | 0.300 | 400 |
| CW105550A-27NJ | 27 | ±5 % | 26 | 250 | 250 | 2480 | 0.298 | 400 |
| CW105550A-30NJ | 30 | ±5 % | 25 | 250 | 250 | 2350 | 0.300 | 400 |
| CW105550A-33NJ | 33 | ±5 % | 24 | 250 | 250 | 2350 | 0.350 | 400 |
| CW105550A-36NJ | 36 | ±5 % | 26 | 250 | 250 | 2320 | 0.403 | 320 |
| CW105550A-39NJ | 39 | ±5 % | 25 | 250 | 250 | 2100 | 0.550 | 320 |
| CW105550A-40NJ | 40 | ±5 % | 26 | 250 | 250 | 2240 | 0.438 | 320 |
| CW105550A-43NJ | 43 | ±5 % | 25 | 250 | 250 | 2030 | 0.810 | 240 |
| CW105550A-47NJ | 47 | ±5 % | 26 | 200 | 200 | 2100 | 0.830 | 210 |
| CW105550A-51NJ | 51 | ±5 % | 25 | 200 | 200 | 1750 | 0.820 | 210 |
| CW105550A-56NJ | 56 | ±5 % | 22 | 200 | 200 | 1760 | 0.970 | 200 |
| CW105550A-68NJ | 68 | ±5 % | 22 | 200 | 200 | 1620 | 1.120 | 180 |
| CW105550A-82NJ | 82 | ±5 % | 20 | 150 | 150 | 1500 | 1.250 | 150 |
| CW105550A-91NJ | 91 | ±5 % | 20 | 150 | 150 | 1350 | 2.300 | 120 |
| CW105550A-R10J | 100 | ±5 % | 20 | 150 | 150 | 1300 | 2.520 | 120 |
| CW105550A-R12J | 120 | ±5 % | 20 | 150 | 150 | 1100 | 2.660 | 110 |

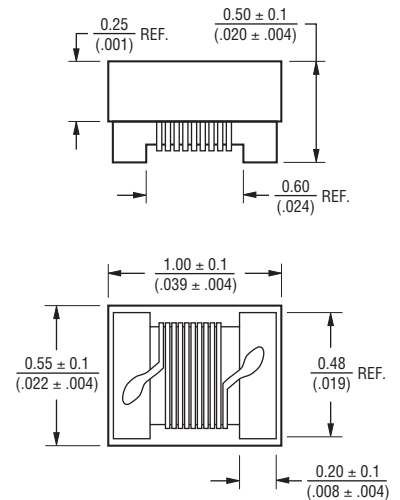
General Specifications

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

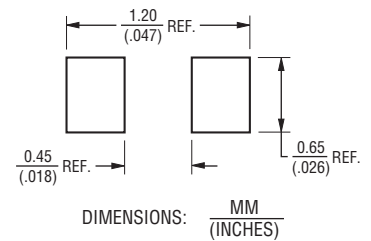
Materials

Core MaterialCeramic
 WireEnameled copper (Class H)
 Terminal Mo/Mn+Ni+Au
 Packaging 10,000 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.

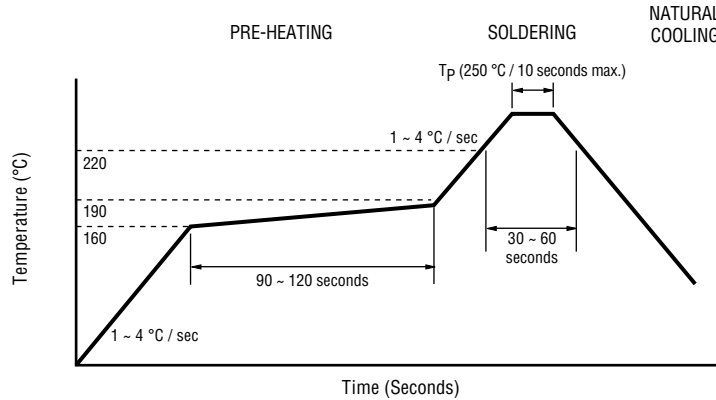
** Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.

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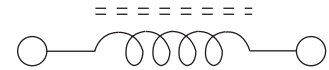
CW10550A Series – 0402 Chip Inductors

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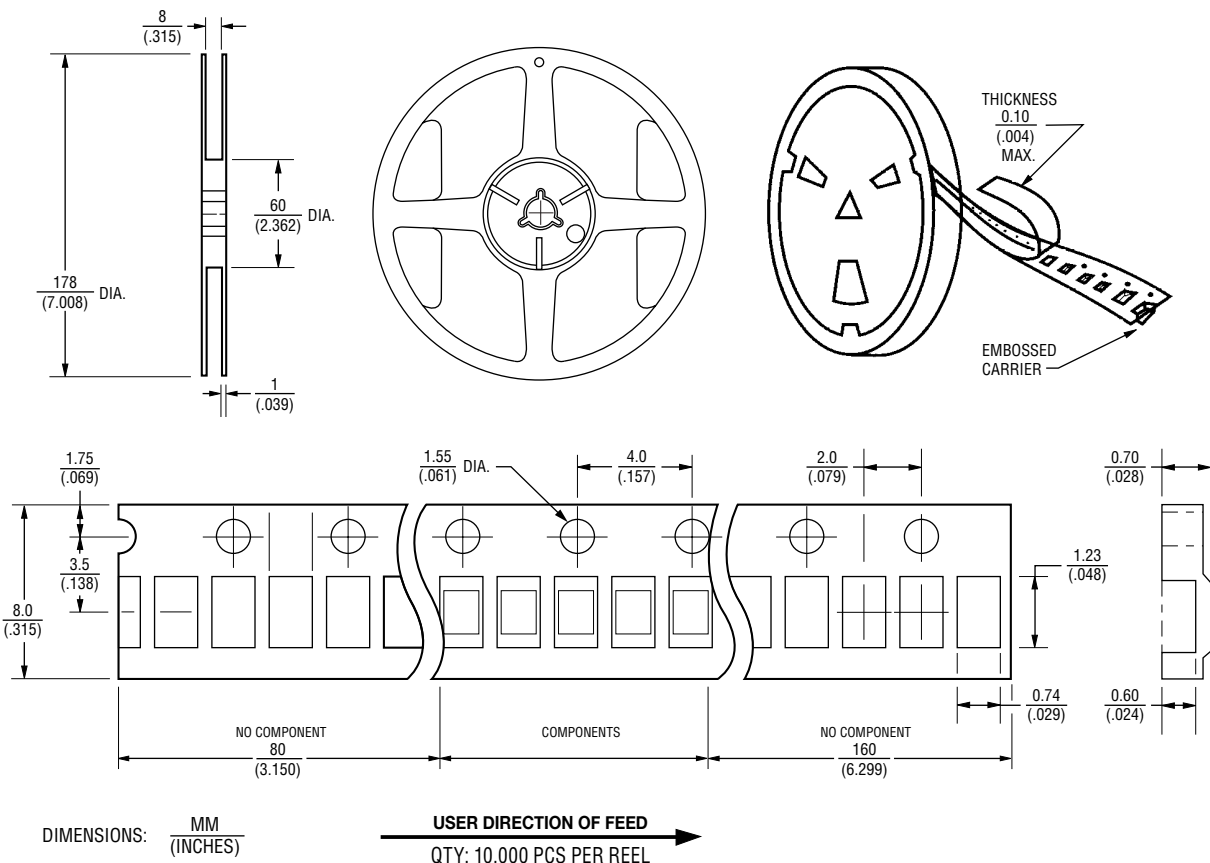
Solder Profile



Schematic



Packaging Specifications



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