

### Features

- 0402 miniature size
- Ceramic core provides stable electrical characteristics
- High Q
- High self-resonant frequency
- Flat top surface for automated assembly
- RoHS compliant\* and halogen free\*\*

### Applications

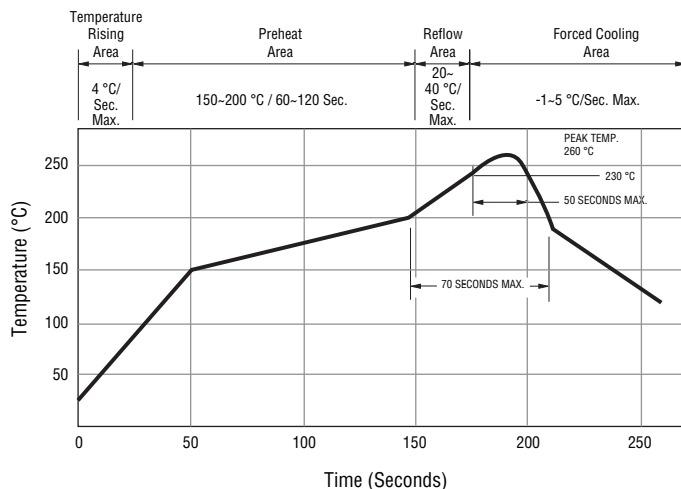
- RF modules
- Cellular phones
- GPS receivers
- Wireless PDAs, LANs
- CATV filters, tuners
- Cable modems, set-top boxes

## CW100505 Series High Q Ceramic Chip Inductors

### Electrical Specifications

Bourns® Part No.	Inductance		Q	Test Freq. (MHz)	SRF (MHz)	DCR (Ohms)	Irms (mA)
	L (nH)	Tol.	Min.	L / Q	Min.		Max.
CW100505-1N0D	1.0	±0.3 nH	13	250	6000	0.045	1360
CW100505-2N2D	2.2	±0.3 nH	18	250	6000	0.070	960
CW100505-2N7D	2.7	±0.3 nH	16	250	6000	0.120	640
CW100505-3N3J	3.3	±5 %	20	250	6000	0.066	840
CW100505-3N9J	3.9	±5 %	20	250	5800	0.066	840
CW100505-4N7J	4.7	±5 %	15	250	4775	0.130	640
CW100505-5N6J	5.6	±5 %	23	250	5800	0.083	760
CW100505-6N8J	6.8	±5 %	20	250	4800	0.083	680
CW100505-8N2J	8.2	±5 %	25	250	4400	0.104	680
CW100505-10NJ	10.0	±5 %	23	250	3900	0.195	480
CW100505-12NJ	12.0	±5 %	26	250	3600	0.120	640
CW100505-15NJ	15.0	±5 %	26	250	3280	0.172	560
CW100505-18NJ	18.0	±5 %	25	250	3100	0.230	420
CW100505-22NJ	22.0	±5 %	25	250	2800	0.300	400
CW100505-27NJ	27.0	±5 %	26	250	2480	0.298	400
CW100505-33NJ	33.0	±5 %	24	250	2350	0.350	400
CW100505-39NJ	39.0	±5 %	25	250	2100	0.550	320
CW100505-47NJ	47.0	±5 %	26	200	2100	0.830	210
CW100505-56NJ	56.0	±5 %	22	200	1760	0.970	200
CW100505-68NJ	68.0	±5 %	22	200	1620	1.120	180
CW100505-82NJ	82.0	±5 %	20	150	1500	1.250	150
CW100505-R10J	100.0	±5 %	20	150	1300	2.520	120
CW100505-R12J	120.0	±5 %	20	150	1100	2.660	110

### Soldering Profile



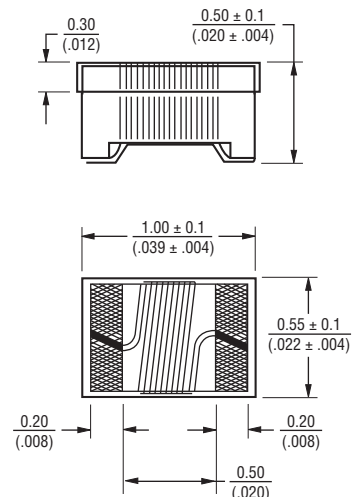
### General Specifications

Operating Temperature .....-55 °C to +125 °C  
 (Temperature rise included)  
 Storage Temperature .....-55 °C to +125 °C  
 Resistance to Soldering Heat ..... +260 °C, 5 sec. max.  
 Temperature Rise ..... 15 °C at rated Irms

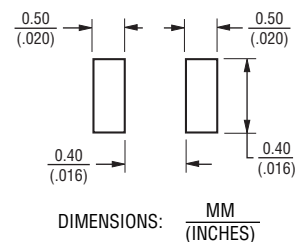
### Materials

Core.....Ceramic  
 Wire.....Enameled copper (Class H)  
 Terminal.....Mo/Mn+Ni+Au  
 Packaging.... 10,000 pcs. per 7-inch reel

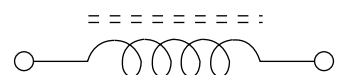
### Product Dimensions



### Recommended Layout



### Schematic



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

\*\* Bourns follows the prevailing definition of "halogen free" in the industry. 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.

Specifications are subject to change without notice.

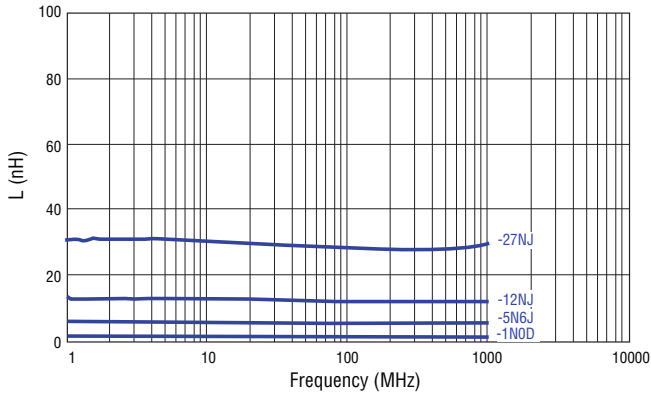
The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.

Users should verify actual device performance in their specific applications.

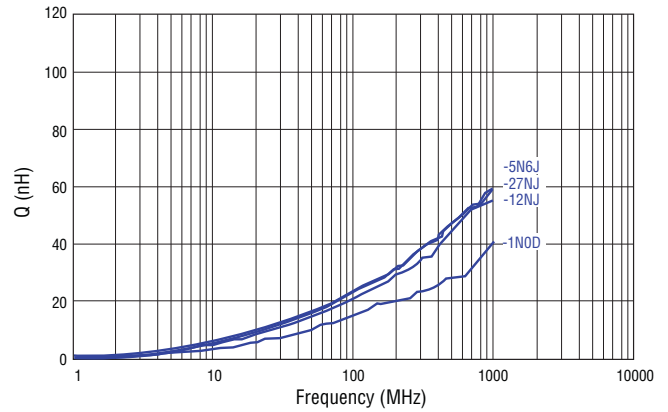
# CW100505 Series High Q Ceramic Chip Inductors

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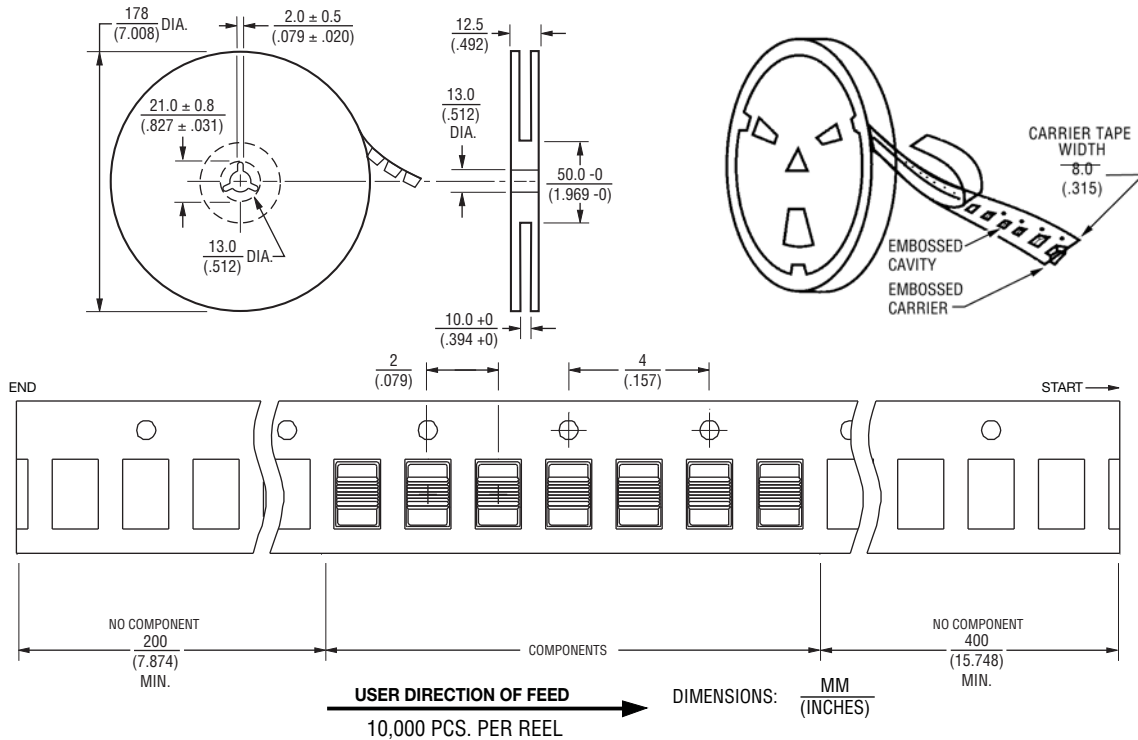
## L vs. Frequency



## Q vs. Frequency



## Packaging Specifications



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REV. 08/13

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