



## Features

- High resistance to heat and humidity
- Resistance to mechanical shock and pressure
- Accurate dimensions for automatic surface mounting
- Inductance range: 0.12 to 150  $\mu$ H
- RoHS compliant\*

## Applications

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

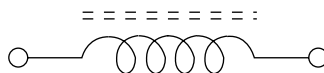
# CM322522 Series - Chip Inductor

### Electrical Specifications @25 °C

| Bourns Part No. | Inductance |                   |                | Q Min. | Test Frequency (MHz) | SRF Min. (MHz) | DCR Max. ( $\Omega$ ) | IDC (mA) |
|-----------------|------------|-------------------|----------------|--------|----------------------|----------------|-----------------------|----------|
|                 | $\mu$ H    | Standard Tol. (%) | Other Tol. (%) |        |                      |                |                       |          |
| CM322522-R12ML  | 0.12       | $\pm 20$          | N/A            | 30     | 25.2                 | 500            | 0.22                  | 450      |
| CM322522-R15ML  | 0.15       | $\pm 20$          | N/A            | 30     | 25.2                 | 450            | 0.25                  | 450      |
| CM322522-R18ML  | 0.18       | $\pm 20$          | N/A            | 30     | 25.2                 | 400            | 0.28                  | 450      |
| CM322522-R22*L  | 0.22       | $\pm 20$          | $\pm 10$       | 30     | 25.2                 | 350            | 0.32                  | 450      |
| CM322522-R27*L  | 0.27       | $\pm 20$          | $\pm 10$       | 30     | 25.2                 | 320            | 0.36                  | 450      |
| CM322522-R33*L  | 0.33       | $\pm 20$          | $\pm 10$       | 30     | 25.2                 | 300            | 0.4                   | 450      |
| CM322522-R39*L  | 0.39       | $\pm 20$          | $\pm 10$       | 30     | 25.2                 | 250            | 0.45                  | 450      |
| CM322522-R47*L  | 0.47       | $\pm 20$          | $\pm 10$       | 30     | 25.2                 | 220            | 0.5                   | 450      |
| CM322522-R56*L  | 0.56       | $\pm 20$          | $\pm 10$       | 30     | 25.2                 | 180            | 0.55                  | 450      |
| CM322522-R68*L  | 0.68       | $\pm 20$          | $\pm 10$       | 30     | 25.2                 | 160            | 0.6                   | 450      |
| CM322522-R82*L  | 0.82       | $\pm 20$          | $\pm 10$       | 30     | 25.2                 | 140            | 0.65                  | 450      |
| CM322522-1R0*L  | 1          | $\pm 10$          | $\pm 5$        | 30     | 7.96                 | 120            | 0.7                   | 400      |
| CM322522-1R2*L  | 1.2        | $\pm 10$          | $\pm 5$        | 30     | 7.96                 | 100            | 0.75                  | 390      |
| CM322522-1R5*L  | 1.5        | $\pm 10$          | $\pm 5$        | 30     | 7.96                 | 85             | 0.85                  | 370      |
| CM322522-1R8*L  | 1.8        | $\pm 10$          | $\pm 5$        | 30     | 7.96                 | 80             | 0.9                   | 350      |
| CM322522-2R2*L  | 2.2        | $\pm 10$          | $\pm 5$        | 30     | 7.96                 | 75             | 1                     | 320      |
| CM322522-2R7*L  | 2.7        | $\pm 10$          | $\pm 5$        | 30     | 7.96                 | 70             | 1.1                   | 290      |
| CM322522-3R3*L  | 3.3        | $\pm 10$          | $\pm 5$        | 30     | 7.96                 | 60             | 1.2                   | 260      |
| CM322522-3R9*L  | 3.9        | $\pm 10$          | $\pm 5$        | 30     | 7.96                 | 55             | 1.3                   | 250      |
| CM322522-4R7*L  | 4.7        | $\pm 10$          | $\pm 5$        | 30     | 7.96                 | 50             | 1.5                   | 220      |
| CM322522-5R6*L  | 5.6        | $\pm 10$          | $\pm 5$        | 30     | 7.96                 | 45             | 1.6                   | 200      |
| CM322522-6R8*L  | 6.8        | $\pm 10$          | $\pm 5$        | 30     | 7.96                 | 40             | 1.8                   | 180      |
| CM322522-8R2*L  | 8.2        | $\pm 10$          | $\pm 5$        | 30     | 7.96                 | 35             | 2                     | 170      |
| CM322522-100*L  | 10         | $\pm 10$          | $\pm 5$        | 30     | 2.52                 | 30             | 2.1                   | 150      |
| CM322522-120*L  | 12         | $\pm 10$          | $\pm 5$        | 30     | 2.52                 | 20             | 2.5                   | 140      |
| CM322522-150*L  | 15         | $\pm 10$          | $\pm 5$        | 30     | 2.52                 | 20             | 2.8                   | 130      |
| CM322522-180*L  | 18         | $\pm 10$          | $\pm 5$        | 30     | 2.52                 | 20             | 3.3                   | 120      |
| CM322522-220*L  | 22         | $\pm 10$          | $\pm 5$        | 30     | 2.52                 | 20             | 3.7                   | 110      |
| CM322522-270*L  | 27         | $\pm 10$          | $\pm 5$        | 30     | 2.52                 | 20             | 5                     | 80       |
| CM322522-330*L  | 33         | $\pm 10$          | $\pm 5$        | 30     | 2.52                 | 17             | 5.6                   | 70       |
| CM322522-390*L  | 39         | $\pm 10$          | $\pm 5$        | 30     | 2.52                 | 16             | 6.4                   | 65       |
| CM322522-470*L  | 47         | $\pm 10$          | $\pm 5$        | 30     | 2.52                 | 15             | 7                     | 60       |
| CM322522-560*L  | 56         | $\pm 10$          | $\pm 5$        | 30     | 2.52                 | 13             | 8                     | 55       |
| CM322522-680*L  | 68         | $\pm 10$          | $\pm 5$        | 30     | 2.52                 | 12             | 9                     | 50       |
| CM322522-820*L  | 82         | $\pm 10$          | $\pm 5$        | 30     | 2.52                 | 11             | 10                    | 45       |
| CM322522-101*L  | 100        | $\pm 10$          | $\pm 5$        | 20     | 0.796                | 10             | 11                    | 40       |
| CM322522-121*L  | 120        | $\pm 10$          | $\pm 5$        | 20     | 0.796                | 10             | 11                    | 70       |
| CM322522-151*L  | 150        | $\pm 10$          | $\pm 5$        | 20     | 0.796                | 8              | 15                    | 65       |

\* Enter Standard or Other Tolerance Code:  
M =  $\pm 20$  %, K =  $\pm 10$  %, J =  $\pm 5$  %

### Schematic



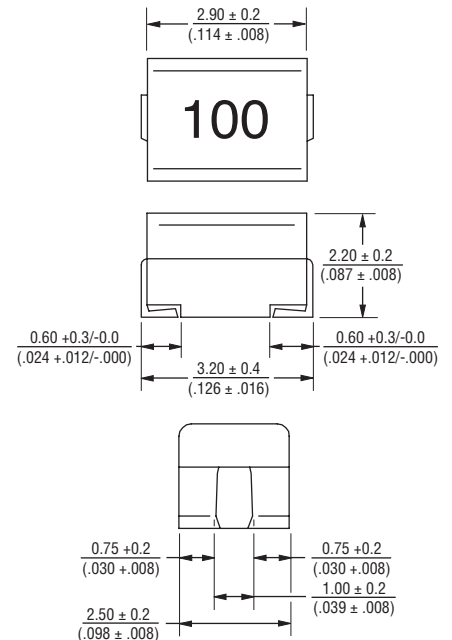
### General Specifications

Operating Temperature ..... -40 °C to +125 °C  
(Temperature rise included)  
Storage Temperature ..... -40 °C to +125 °C  
Resistance to Soldering Heat ..... 245 °C, 5 seconds  
Temperature Rise ..... 20 °C  
Rated Current.... Inductance drops 10 %  
Moisture Sensitivity Level ..... 3  
ESD Classification (HBM)..... N/A

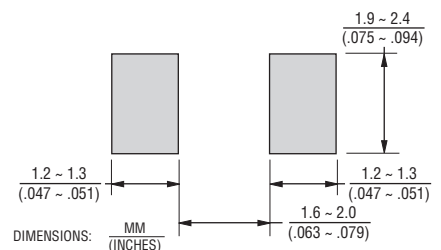
### Materials

Core..... Ferrite  
Wire ..... Enamelled copper  
Enclosure..... Epoxy resin  
Terminal Finish ..... Sn  
Packaging..... 2,000 pcs. per 7-inch reel

### Product Dimensions



### Recommended Layout



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

Specifications are subject to change without notice.

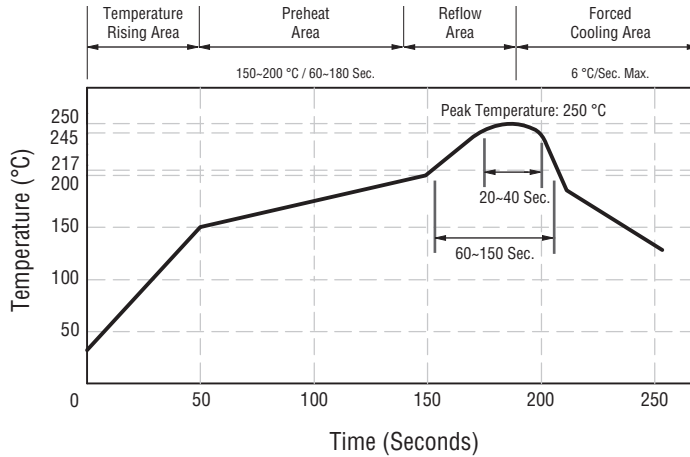
The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.

Users should verify actual device performance in their specific applications.

# CM322522 Series - Chip Inductor



## Soldering Profile



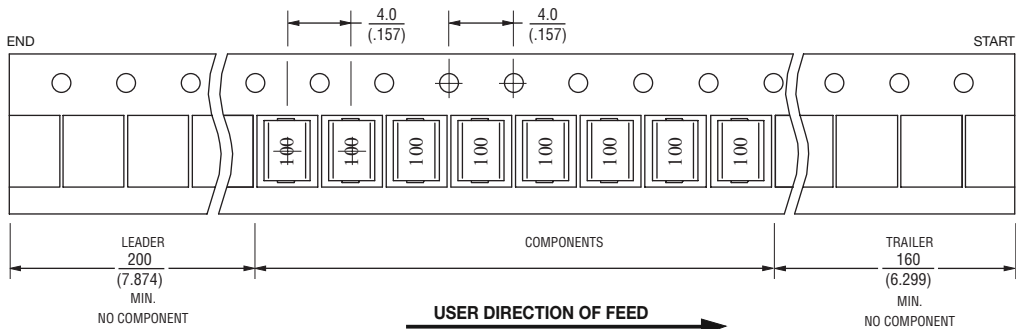
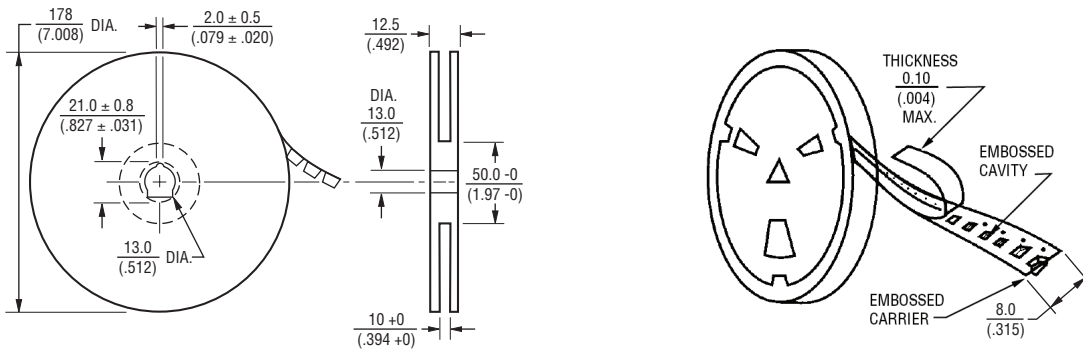
Peak Temperature:  
250 °C max.

Max. Time Above 245 °C:  
20-40 sec. max.

Max. Time Above 217 °C:  
60-150 sec. max.

200 °C ~ 250 °C Average Ramp-up Rate:  
3 °C / sec. max.

## Packaging Specifications



QTY: 2000 PCS. PER REEL

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

REV. 08/17

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