



**THE DATASHEET OF  
CM322522-R33ML**





## 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

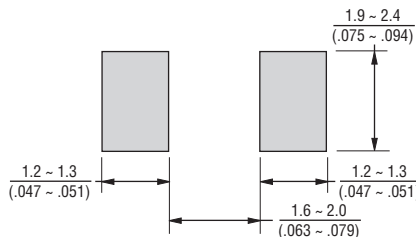
### Electrical Specifications @25 °C

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 =  $\pm 5$  %

\*RoHS Directive 2015/863, Mar 31, 2015 and Annex. Specifications are subject to change without notice. Users should verify actual device performance in their specific applications. The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at [www.bourns.com/docs/legal/disclaimer.pdf](http://www.bourns.com/docs/legal/disclaimer.pdf).

### Recommended Layout



### Additional Information

Click these links for more information:



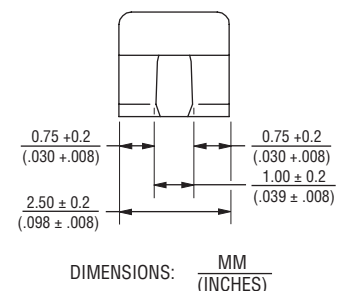
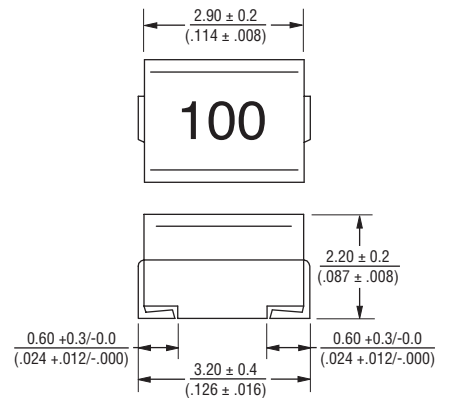
### General Specifications

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 ..... 1  
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

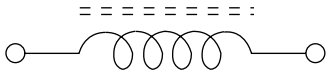
### Product Dimensions



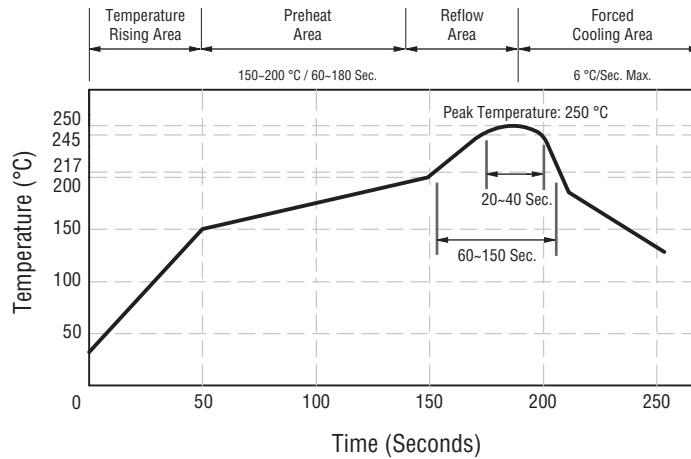
# CM322522 Series - Chip Inductor

**BOURNS®**

## Schematic



## Soldering Profile



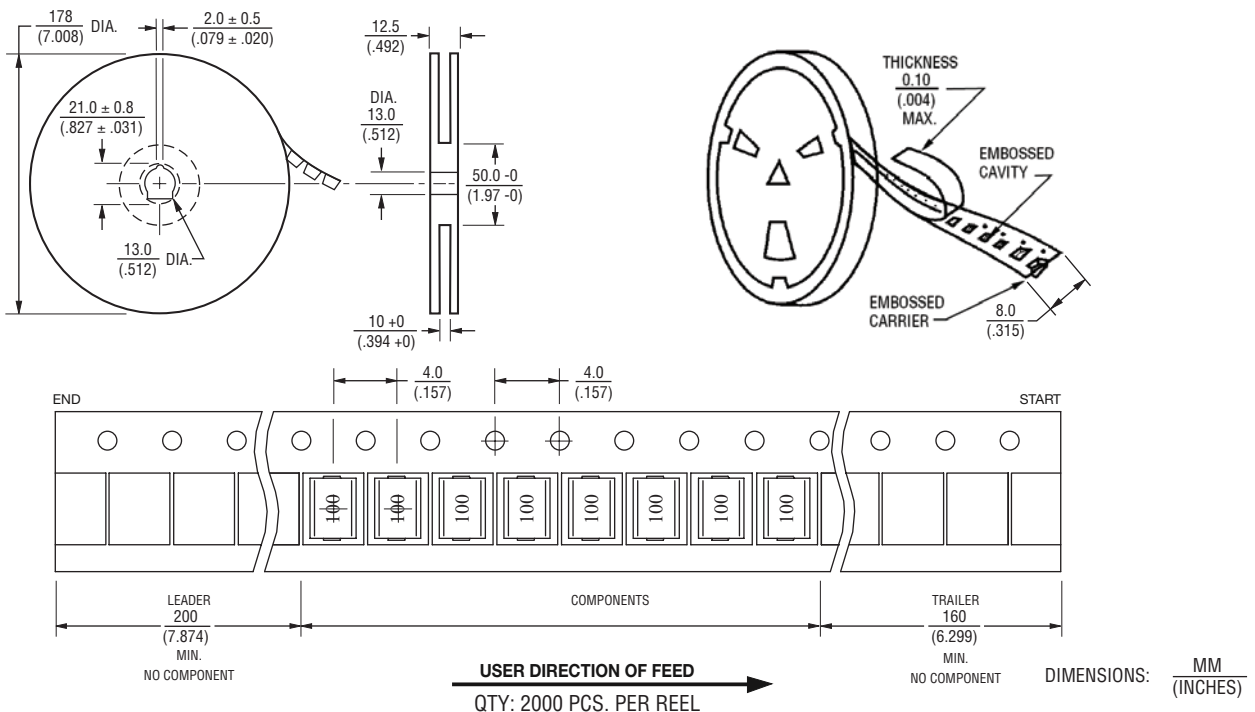
Peak Temperature:  
250 °C max.

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

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

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

## Packaging Specifications



REV. 11/21

Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

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