



### Features

- High resistance to heat and humidity
- Resistance to mechanical shock and pressure
- Accurate dimensions for automatic surface mounting
- Wide inductance range (1.0 nH to 1000 μH)
- RoHS compliant\*

### Applications

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

## CM45, CM32, CM25, CM20, CM16, CM10 SMT Chip Inductors

### General Specifications

|                                    |                        |
|------------------------------------|------------------------|
| Temperature Rise .....             | .....20 °C max.        |
| Ambient Temperature .....          | ..... 80 °C max.       |
| Operating Temperature              |                        |
| CM10, CM16, CM20, CM25, CM32 ..... | .....-40 °C to +100 °C |
| CM45 .....                         | .....-40 °C to +125 °C |
| Storage Temperature                |                        |
| CM10, CM16, CM20, CM25, CM32 ..... | .....-40 °C to +100 °C |
| CM45 .....                         | .....-40 °C to +125 °C |
| Resistance to Soldering Heat ..... | .....260 °C, 5 seconds |

### Materials

|  |                               |
|--|-------------------------------|
| Core Material                            |                               |
| CM10, CM16 .....                         | .....Alumina Ceramic          |
| CM20 .....                               | .....Polymer 10 nH to 1000 nH |
| CM25 .....                               | .....Polymer 10 nH to 180 nH  |
| CM32 .....                               | .....Polymer 47 nH to 180 nH  |
| Ferrite Core                             |                               |
| CM25 .....                               | .....220 nH to 100 μH         |
| CM32 .....                               | .....220 nH +                 |
| CM45 .....                               | .....All                      |
| Coil Type                                |                               |
| CM10, CM16 .....                         | .....Copper plating           |
| CM20, CM25, CM32, CM45 .....             | .....Copper wire              |
| Enclosure                                |                               |
| CM10, CM16 .....                         | .....Resin                    |
| CM20, CM25, CM32, CM45 .....             | .....Epoxy resin              |
| Terminal                                 |                               |
| CM10, CM16, CM20, CM25, CM32, CM45 ..... | .....Sn                       |

### Product Dimensions



### Recommended Land Pattern Dimensions



| Model | a                         | b                         | c                         |
|-------|---------------------------|---------------------------|---------------------------|
| CM10  | 0.5 to 0.6 (.019 to .023) | 1.5 to 1.7 (.059 to .067) | 0.5 to 0.6 (.019 to .023) |
| CM16  | 0.8 to 1.0 (.032 to .039) | 2.0 to 2.6 (.079 to .102) | 0.7 to 0.9 (.028 to .035) |
| CM20  | 1.0 to 1.2 (.039 to .047) | 3.0 to 3.8 (.118 to .150) | 0.9 to 1.3 (.028 to .051) |
| CM25  | 1.4 to 1.5 (.055 to .059) | 3.5 to 4.0 (.138 to .157) | 1.2 to 1.6 (.047 to .063) |
| CM32  | 1.6 to 2.0 (.063 to .079) | 4.0 to 4.6 (.157 to .181) | 1.9 to 2.4 (.075 to .094) |
| CM45  | 2.4 to 2.6 (.094 to .102) | 5.5 to 6.0 (.217 to .236) | 2.0 to 3.0 (.079 to .118) |

\*RoHS Directive 2002/95/EC Jan 27, 2003 including Annex. Specifications are subject to change without notice. Customers should verify actual device performance in their specific applications.

# CM45, CM32, CM25, CM20, CM16, CM10 SMT Chip Inductors

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## Packaging Specifications

### CM10



### CM16, CM20, CM25, CM32



### CM45



| Model | A           | B           | W            | F           | E           | P1          | P2          | P3          | D0 Dia.     | D1 Dia.     | t1          | t2          |
|-------|-------------|-------------|--------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| CM10  | 0.71 (.027) | 1.21 (.047) | 8.00 (.315)  | 3.50 (.138) | 1.75 (.069) | 4.00 (.157) | 2.00 (.079) | 4.00 (.157) | 1.50 (.059) | —           | —           | 0.66 (.026) |
| CM16  | 1.00 (.039) | 1.80 (.071) | 8.00 (.315)  | 3.50 (.138) | 1.75 (.069) | 4.00 (.157) | 2.00 (.079) | 4.00 (.157) | 1.50 (.059) | 0.60 (.024) | 0.27 (.011) | 1.20 (.047) |
| CM20  | 1.45 (.057) | 2.25 (.089) | 8.00 (.315)  | 3.50 (.138) | 1.75 (.069) | 4.00 (.157) | 2.00 (.079) | 4.00 (.157) | 1.50 (.059) | 1.00 (.039) | 0.25 (.010) | 1.55 (.061) |
| CM25  | 2.40 (.094) | 2.90 (.114) | 8.00 (.315)  | 3.50 (.138) | 1.75 (.069) | 4.00 (.157) | 2.00 (.079) | 4.00 (.157) | 1.50 (.059) | 1.10 (.043) | 0.25 (.010) | 1.85 (.073) |
| CM32  | 2.80 (.110) | 3.60 (.142) | 8.00 (.315)  | 3.50 (.138) | 1.75 (.069) | 4.00 (.157) | 2.00 (.079) | 4.00 (.157) | 1.50 (.059) | —           | 0.25 (.010) | 2.40 (.094) |
| CM45  | 3.60 (.142) | 4.90 (.193) | 12.00 (.472) | 5.50 (.217) | 1.75 (.069) | 8.00 (.315) | 2.00 (.079) | 4.00 (.157) | 1.50 (.059) | —           | 0.30 (.012) | 3.50 (.138) |

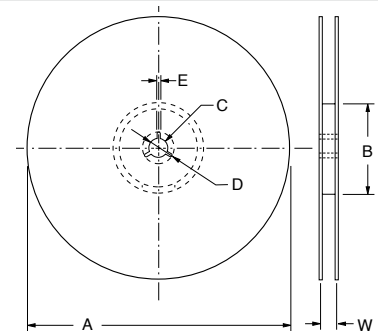
## Reel Dimensions

| Model       | A           | B       | C         | D         | E        | W         |
|-------------|-------------|---------|-----------|-----------|----------|-----------|
| CM10 ~ CM32 | 178 (7.008) | 60 min. | 13 (.512) | 21 (.827) | 2 (.079) | 9 (.354)  |
| CM45        | 178 (7.008) | 60 min. | 13 (.512) | 21 (.827) | 2 (.079) | 13 (.512) |

## Packaging

| Model | Quantity  | Weight |
|-------|-----------|--------|
| CM10  | 10000 pcs | 150 g  |
| CM16  | 3000 pcs  | 90 g   |
| CM20  | 3000 pcs  | 90 g   |

| Model | Quantity | Weight |
|-------|----------|--------|
| CM25  | 2000 pcs | 100 g  |
| CM32  | 2000 pcs | 190 g  |
| CM45  | 500 pcs  | 100 g  |



Soldering Profiles

CM16, CM10



CM45, CM32, CM25, CM20



# Chip Inductors - CM453232 Series Wirewound

**BOURNS®**

| RoHS Compliant<br>1812 Size<br>Part Number | Inductance<br>μH | Std.<br>Tolerance | Std. Tol.<br>Code | 1/2<br>Tolerance | 1/2 Tol.<br>Code | Q<br>min. | Test Freq.<br>MHz | SRF min.<br>MHz | RDC<br>ohm max | IDC<br>mA max |
|--|------------------|-------------------|-------------------|------------------|------------------|-----------|-------------------|-----------------|----------------|---------------|
| CM453232-R10<1>L                           | 0.10             | ±20 %             | M                 | ±10 %            | K                | 35        | 25.2              | 300             | 0.18           | 800           |
| CM453232-R12<1>L                           | 0.12             | ±20 %             | M                 | ±10 %            | K                | 35        | 25.2              | 280             | 0.2            | 770           |
| CM453232-R15<1>L                           | 0.15             | ±20 %             | M                 | ±10 %            | K                | 35        | 25.2              | 250             | 0.22           | 730           |
| CM453232-R18<1>L                           | 0.18             | ±20 %             | M                 | ±10 %            | K                | 35        | 25.2              | 220             | 0.24           | 700           |
| CM453232-R22<1>L                           | 0.22             | ±20 %             | M                 | ±10 %            | K                | 40        | 25.2              | 200             | 0.25           | 665           |
| CM453232-R27<1>L                           | 0.27             | ±20 %             | M                 | ±10 %            | K                | 40        | 25.2              | 180             | 0.26           | 635           |
| CM453232-R33<1>L                           | 0.33             | ±20 %             | M                 | ±10 %            | K                | 40        | 25.2              | 165             | 0.28           | 605           |
| CM453232-R39<1>L                           | 0.39             | ±20 %             | M                 | ±10 %            | K                | 40        | 25.2              | 150             | 0.30           | 575           |
| CM453232-R47<1>L                           | 0.47             | ±20 %             | M                 | ±10 %            | K                | 40        | 25.2              | 145             | 0.32           | 545           |
| CM453232-R56<1>L                           | 0.56             | ±20 %             | M                 | ±10 %            | K                | 40        | 25.2              | 140             | 0.36           | 520           |
| CM453232-R68<1>L                           | 0.68             | ±20 %             | M                 | ±10 %            | K                | 40        | 25.2              | 135             | 0.40           | 500           |
| CM453232-R82<1>L                           | 0.82             | ±20 %             | M                 | ±10 %            | K                | 40        | 25.2              | 130             | 0.45           | 475           |
| CM453232-1R0<1>L                           | 1.0              | ±10 %             | K                 | ±5 %             | J                | 50        | 7.96              | 100             | 0.50           | 450           |
| CM453232-1R2<1>L                           | 1.2              | ±10 %             | K                 | ±5 %             | J                | 50        | 7.96              | 80              | 0.55           | 430           |
| CM453232-1R5<1>L                           | 1.5              | ±10 %             | K                 | ±5 %             | J                | 50        | 7.96              | 70              | 0.60           | 410           |
| CM453232-1R8<1>L                           | 1.8              | ±10 %             | K                 | ±5 %             | J                | 50        | 7.96              | 60              | 0.65           | 390           |
| CM453232-2R2<1>L                           | 2.2              | ±10 %             | K                 | ±5 %             | J                | 50        | 7.96              | 55              | 0.70           | 380           |
| CM453232-2R7<1>L                           | 2.7              | ±10 %             | K                 | ±5 %             | J                | 50        | 7.96              | 50              | 0.75           | 370           |
| CM453232-3R3<1>L                           | 3.3              | ±10 %             | K                 | ±5 %             | J                | 50        | 7.96              | 45              | 0.80           | 355           |
| CM453232-3R9<1>L                           | 3.9              | ±10 %             | K                 | ±5 %             | J                | 50        | 7.96              | 40              | 0.90           | 330           |
| CM453232-4R7<1>L                           | 4.7              | ±10 %             | K                 | ±5 %             | J                | 50        | 7.96              | 35              | 1.00           | 315           |
| CM453232-5R6<1>L                           | 5.6              | ±10 %             | K                 | ±5 %             | J                | 50        | 7.96              | 33              | 1.10           | 300           |
| CM453232-6R8<1>L                           | 6.8              | ±10 %             | K                 | ±5 %             | J                | 50        | 7.96              | 27              | 1.2            | 285           |
| CM453232-8R2<1>L                           | 8.2              | ±10 %             | K                 | ±5 %             | J                | 50        | 7.96              | 25              | 1.4            | 270           |
| CM453232-100<1>L                           | 10               | ±10 %             | K                 | ±5 %             | J                | 50        | 2.52              | 20              | 1.6            | 250           |
| CM453232-120<1>L                           | 12               | ±10 %             | K                 | ±5 %             | J                | 50        | 2.52              | 18              | 2              | 225           |
| CM453232-150<1>L                           | 15               | ±10 %             | K                 | ±5 %             | J                | 50        | 2.52              | 17              | 2.5            | 200           |
| CM453232-180<1>L                           | 18               | ±10 %             | K                 | ±5 %             | J                | 50        | 2.52              | 15              | 2.8            | 190           |
| CM453232-220<1>L                           | 22               | ±10 %             | K                 | ±5 %             | J                | 50        | 2.52              | 13              | 3.2            | 180           |
| CM453232-270<1>L                           | 27               | ±10 %             | K                 | ±5 %             | J                | 50        | 2.52              | 12              | 3.6            | 170           |
| CM453232-330<1>L                           | 33               | ±10 %             | K                 | ±5 %             | J                | 50        | 2.52              | 11              | 4              | 160           |
| CM453232-390<1>L                           | 39               | ±10 %             | K                 | ±5 %             | J                | 50        | 2.52              | 10              | 4.5            | 150           |
| CM453232-470<1>L                           | 47               | ±10 %             | K                 | ±5 %             | J                | 50        | 2.52              | 10              | 5              | 140           |
| CM453232-560<1>L                           | 56               | ±10 %             | K                 | ±5 %             | J                | 50        | 2.52              | 9               | 5.5            | 135           |
| CM453232-680<1>L                           | 68               | ±10 %             | K                 | ±5 %             | J                | 50        | 2.52              | 9               | 6              | 130           |
| CM453232-820<1>L                           | 82               | ±10 %             | K                 | ±5 %             | J                | 50        | 2.52              | 8               | 7              | 120           |
| CM453232-101<1>L                           | 100              | ±10 %             | K                 | ±5 %             | J                | 40        | 2.52              | 8               | 8              | 110           |
| CM453232-121<1>L                           | 120              | ±10 %             | K                 | ±5 %             | J                | 40        | 0.796             | 6               | 8              | 110           |
| CM453232-151<1>L                           | 150              | ±10 %             | K                 | ±5 %             | J                | 40        | 0.796             | 5               | 9              | 105           |
| CM453232-181<1>L                           | 180              | ±10 %             | K                 | ±5 %             | J                | 40        | 0.796             | 5               | 9.5            | 102           |
| CM453232-221<1>L                           | 220              | ±10 %             | K                 | ±5 %             | J                | 40        | 0.796             | 4               | 10             | 100           |
| CM453232-271<1>L                           | 270              | ±10 %             | K                 | ±5 %             | J                | 40        | 0.796             | 4               | 12             | 92            |
| CM453232-331<1>L                           | 330              | ±10 %             | K                 | ±5 %             | J                | 40        | 0.796             | 3.5             | 14             | 85            |
| CM453232-391<1>L                           | 390              | ±10 %             | K                 | ±5 %             | J                | 40        | 0.796             | 3               | 18             | 80            |
| CM453232-471<1>L                           | 470              | ±10 %             | K                 | ±5 %             | J                | 40        | 0.796             | 3               | 26             | 62            |
| CM453232-561<1>L                           | 560              | ±10 %             | K                 | ±5 %             | J                | 30        | 0.796             | 3               | 30             | 50            |
| CM453232-681<1>L                           | 680              | ±10 %             | K                 | ±5 %             | J                | 30        | 0.796             | 3               | 30             | 50            |
| CM453232-821<1>L                           | 820              | ±10 %             | K                 | ±5 %             | J                | 30        | 0.796             | 2.5             | 35             | 30            |
| CM453232-102<1>L                           | 1000             | ±10 %             | K                 | ±5 %             | J                | 30        | 0.252             | 2.5             | 40             | 30            |

<1> Enter tolerance code from standard or 1/2 tolerance column. Example: CM453232-1R2KL is standard tolerance; CM453232-1R2JL is 1/2 tolerance.

Specifications are subject to change without notice.  
Customers should verify actual device performance in their specific applications.

# Chip Inductors - CM322522 Series Wirewound

**BOURNS®**

| RoHS Compliant<br>1210 Size<br>Part Number | Inductance<br>μH | Std.<br>Tolerance | Std. Tol.<br>Code | 1/2<br>Tolerance | 1/2 Tol.<br>Code | Q<br>min. | Test Freq.<br>MHz | SRF min.<br>MHz | RDC<br>ohm max | IDC<br>mA max |
|--|------------------|-------------------|-------------------|------------------|------------------|-----------|-------------------|-----------------|----------------|---------------|
| CM322522-47NML                             | 0.047            | ±20 %             | M                 | N/A              | N/A              | 10        | 100               | 680             | 0.20           | 450           |
| CM322522-56NML                             | 0.056            | ±20 %             | M                 | N/A              | N/A              | 10        | 100               | 600             | 0.22           | 420           |
| CM322522-68NML                             | 0.068            | ±20 %             | M                 | N/A              | N/A              | 10        | 100               | 540             | 0.25           | 400           |
| CM322522-82NML                             | 0.082            | ±20 %             | M                 | N/A              | N/A              | 10        | 100               | 500             | 0.27           | 380           |
| CM322522-R10ML                             | 0.10             | ±20 %             | M                 | N/A              | N/A              | 10        | 100               | 450             | 0.30           | 360           |
| CM322522-R12ML                             | 0.12             | ±20 %             | M                 | N/A              | N/A              | 10        | 25.2              | 400             | 0.67           | 240           |
| CM322522-R15ML                             | 0.15             | ±20 %             | M                 | N/A              | N/A              | 10        | 25.2              | 350             | 0.72           | 230           |
| CM322522-R18ML                             | 0.18             | ±20 %             | M                 | N/A              | N/A              | 10        | 25.2              | 320             | 0.81           | 220           |
| CM322522-R22<1>L                           | 0.22             | ±20 %             | M                 | ±10 %            | K                | 25        | 25.2              | 230             | 0.29           | 360           |
| CM322522-R27<1>L                           | 0.27             | ±20 %             | M                 | ±10 %            | K                | 25        | 25.2              | 210             | 0.32           | 345           |
| CM322522-R33<1>L                           | 0.33             | ±20 %             | M                 | ±10 %            | K                | 25        | 25.2              | 190             | 0.35           | 330           |
| CM322522-R39<1>L                           | 0.39             | ±20 %             | M                 | ±10 %            | K                | 25        | 25.2              | 175             | 0.39           | 305           |
| CM322522-R47<1>L                           | 0.47             | ±20 %             | M                 | ±10 %            | K                | 25        | 25.2              | 160             | 0.44           | 290           |
| CM322522-R56<1>L                           | 0.56             | ±20 %             | M                 | ±10 %            | K                | 25        | 25.2              | 150             | 0.49           | 275           |
| CM322522-R68<1>L                           | 0.68             | ±20 %             | M                 | ±10 %            | K                | 25        | 25.2              | 135             | 0.55           | 260           |
| CM322522-R82<1>L                           | 0.82             | ±20 %             | M                 | ±10 %            | K                | 25        | 25.2              | 125             | 0.61           | 245           |
| CM322522-1R0<1>L                           | 1.0              | ±10 %             | K                 | ±5 %             | J                | 30        | 7.96              | 115             | 0.69           | 230           |
| CM322522-1R2<1>L                           | 1.2              | ±10 %             | K                 | ±5 %             | J                | 30        | 7.96              | 100             | 0.75           | 215           |
| CM322522-1R5<1>L                           | 1.5              | ±10 %             | K                 | ±5 %             | J                | 30        | 7.96              | 90              | 0.75           | 210           |
| CM322522-1R8<1>L                           | 1.8              | ±10 %             | K                 | ±5 %             | J                | 30        | 7.96              | 85              | 0.82           | 200           |
| CM322522-2R2<1>L                           | 2.2              | ±10 %             | K                 | ±5 %             | J                | 30        | 7.96              | 80              | 0.95           | 190           |
| CM322522-2R7<1>L                           | 2.7              | ±10 %             | K                 | ±5 %             | J                | 30        | 7.96              | 75              | 1.1            | 180           |
| CM322522-3R3<1>L                           | 3.3              | ±10 %             | K                 | ±5 %             | J                | 30        | 7.96              | 65              | 1.2            | 180           |
| CM322522-3R9<1>L                           | 3.9              | ±10 %             | K                 | ±5 %             | J                | 30        | 7.96              | 60              | 1.3            | 175           |
| CM322522-4R7<1>L                           | 4.7              | ±10 %             | K                 | ±5 %             | J                | 30        | 7.96              | 55              | 1.5            | 165           |
| CM322522-5R6<1>L                           | 5.6              | ±10 %             | K                 | ±5 %             | J                | 30        | 7.96              | 50              | 1.6            | 160           |
| CM322522-6R8<1>L                           | 6.8              | ±10 %             | K                 | ±5 %             | J                | 30        | 7.96              | 45              | 1.8            | 150           |
| CM322522-8R2<1>L                           | 8.2              | ±10 %             | K                 | ±5 %             | J                | 30        | 7.96              | 40              | 2.0            | 140           |
| CM322522-100<1>L                           | 10               | ±10 %             | K                 | ±5 %             | J                | 30        | 2.52              | 36              | 2.1            | 140           |
| CM322522-120<1>L                           | 12               | ±10 %             | K                 | ±5 %             | J                | 30        | 2.52              | 33              | 2.5            | 125           |
| CM322522-150<1>L                           | 15               | ±10 %             | K                 | ±5 %             | J                | 30        | 2.52              | 30              | 2.8            | 120           |
| CM322522-180<1>L                           | 18               | ±10 %             | K                 | ±5 %             | J                | 30        | 2.52              | 27              | 3.3            | 110           |
| CM322522-220<1>L                           | 22               | ±10 %             | K                 | ±5 %             | J                | 30        | 2.52              | 25              | 3.7            | 105           |
| CM322522-270<1>L                           | 27               | ±10 %             | K                 | ±5 %             | J                | 30        | 2.52              | 22              | 5.0            | 90            |
| CM322522-330<1>L                           | 33               | ±10 %             | K                 | ±5 %             | J                | 30        | 2.52              | 20              | 5.6            | 85            |
| CM322522-390<1>L                           | 39               | ±10 %             | K                 | ±5 %             | J                | 30        | 2.52              | 20              | 6.4            | 80            |
| CM322522-470<1>L                           | 47               | ±10 %             | K                 | ±5 %             | J                | 30        | 2.52              | 15              | 7.0            | 75            |
| CM322522-560<1>L                           | 56               | ±10 %             | K                 | ±5 %             | J                | 30        | 2.52              | 15              | 8.0            | 70            |
| CM322522-680<1>L                           | 68               | ±10 %             | K                 | ±5 %             | J                | 30        | 2.52              | 15              | 9.0            | 65            |
| CM322522-820<1>L                           | 82               | ±10 %             | K                 | ±5 %             | J                | 30        | 2.52              | 11              | 10             | 60            |
| CM322522-101<1>L                           | 100              | ±10 %             | K                 | ±5 %             | J                | 20        | 0.796             | 10              | 10             | 60            |
| CM322522-121<1>L                           | 120              | ±10 %             | K                 | ±5 %             | J                | 20        | 0.796             | 10              | 11             | 55            |
| CM322522-151<1>L                           | 150              | ±10 %             | K                 | ±5 %             | J                | 20        | 0.796             | 8               | 15             | 50            |
| CM322522-181<1>L                           | 180              | ±10 %             | K                 | ±5 %             | J                | 20        | 0.796             | 7               | 17             | 50            |
| CM322522-221<1>L                           | 220              | ±10 %             | K                 | ±5 %             | J                | 20        | 0.796             | 7               | 21             | 45            |

Tighter tolerance available on request. Consult factory.

NOTE: 47 nH to 180 nH 'air core' / 220 nH to 220 μH 'ferrite core'

<1>Enter tolerance code from standard or 1/2 tolerance column. Example: CM322522-1R0KL is standard tolerance; CM322522-1R0JL is 1/2 tolerance.

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Customers should verify actual device performance in their specific applications.

# Chip Inductors - CM252016 Series Wirewound

**BOURNS®**

| RoHS Compliant<br>1008 Size<br>Part Number | Inductance<br>μH | Tolerance | Q<br>min. | Test Frequency<br>MHz | SRF min.<br>MHz | RDC<br>ohm max | IDC<br>mA max |
|--|------------------|-----------|-----------|-----------------------|-----------------|----------------|---------------|
| CM252016-10NKL                             | 0.010            | ±10 %     | 10        | 100                   | 2500            | 0.32           | 280           |
| CM252016-12NKL                             | 0.012            | ±10 %     | 10        | 100                   | 2200            | 0.34           | 270           |
| CM252016-15NKL                             | 0.015            | ±10 %     | 10        | 100                   | 1800            | 0.38           | 255           |
| CM252016-18NKL                             | 0.018            | ±10 %     | 10        | 100                   | 1550            | 0.4            | 250           |
| CM252016-22NKL                             | 0.022            | ±10 %     | 15        | 100                   | 1350            | 0.43           | 240           |
| CM252016-27NKL                             | 0.027            | ±10 %     | 15        | 100                   | 1150            | 0.47           | 230           |
| CM252016-33NKL                             | 0.033            | ±10 %     | 15        | 100                   | 1000            | 0.51           | 220           |
| CM252016-39NKL                             | 0.039            | ±10 %     | 15        | 100                   | 890             | 0.55           | 215           |
| CM252016-47NKL                             | 0.047            | ±10 %     | 15        | 100                   | 770             | 0.59           | 205           |
| CM252016-56NKL                             | 0.056            | ±10 %     | 15        | 100                   | 670             | 0.63           | 200           |
| CM252016-68NKL                             | 0.068            | ±10 %     | 15        | 100                   | 590             | 0.68           | 190           |
| CM252016-82NKL                             | 0.082            | ±10 %     | 15        | 100                   | 520             | 0.73           | 185           |
| CM252016-R10KL                             | 0.10             | ±10 %     | 10        | 25.2                  | 460             | 0.80           | 175           |
| CM252016-R12KL                             | 0.12             | ±10 %     | 10        | 25.2                  | 400             | 0.87           | 170           |
| CM252016-R15KL                             | 0.15             | ±10 %     | 10        | 25.2                  | 340             | 0.98           | 160           |
| CM252016-R18KL                             | 0.18             | ±10 %     | 10        | 25.2                  | 300             | 1.05           | 155           |
| CM252016-R22ML                             | 0.22             | ±20 %     | 25        | 25.2                  | 230             | 0.70           | 190           |
| CM252016-R27ML                             | 0.27             | ±20 %     | 25        | 25.2                  | 210             | 0.75           | 180           |
| CM252016-R33ML                             | 0.33             | ±20 %     | 25        | 25.2                  | 190             | 0.85           | 170           |
| CM252016-R39ML                             | 0.39             | ±20 %     | 25        | 25.2                  | 175             | 0.95           | 160           |
| CM252016-R47ML                             | 0.47             | ±20 %     | 25        | 25.2                  | 160             | 1.00           | 155           |
| CM252016-R56ML                             | 0.56             | ±20 %     | 25        | 25.2                  | 150             | 1.10           | 150           |
| CM252016-R68ML                             | 0.68             | ±20 %     | 25        | 25.2                  | 135             | 1.25           | 140           |
| CM252016-R82ML                             | 0.82             | ±20 %     | 25        | 25.2                  | 125             | 1.40           | 130           |
| CM252016-1R0KL                             | 1.0              | ±10 %     | 25        | 7.96                  | 115             | 0.65           | 195           |
| CM252016-1R2KL                             | 1.2              | ±10 %     | 25        | 7.96                  | 100             | 0.75           | 180           |
| CM252016-1R5KL                             | 1.5              | ±10 %     | 25        | 7.96                  | 90              | 0.85           | 170           |
| CM252016-1R8KL                             | 1.8              | ±10 %     | 25        | 7.96                  | 85              | 0.95           | 160           |
| CM252016-2R2KL                             | 2.2              | ±10 %     | 25        | 7.96                  | 80              | 1.05           | 155           |
| CM252016-2R7KL                             | 2.7              | ±10 %     | 25        | 7.96                  | 75              | 1.2            | 145           |
| CM252016-3R3KL                             | 3.3              | ±10 %     | 25        | 7.96                  | 65              | 1.3            | 135           |
| CM252016-3R9KL                             | 3.9              | ±10 %     | 25        | 7.96                  | 60              | 1.4            | 130           |
| CM252016-4R7KL                             | 4.7              | ±10 %     | 25        | 7.96                  | 55              | 1.6            | 125           |
| CM252016-5R6KL                             | 5.6              | ±10 %     | 25        | 7.96                  | 50              | 1.8            | 120           |
| CM252016-6R8KL                             | 6.8              | ±10 %     | 25        | 7.96                  | 45              | 1.9            | 115           |
| CM252016-8R2KL                             | 8.2              | ±10 %     | 25        | 7.96                  | 40              | 2.2            | 105           |
| CM252016-100KL                             | 10               | ±10 %     | 25        | 2.52                  | 32              | 3.5            | 80            |
| CM252016-120KL                             | 12               | ±10 %     | 25        | 2.52                  | 30              | 3.8            | 75            |
| CM252016-150KL                             | 15               | ±10 %     | 25        | 2.52                  | 28              | 4.4            | 70            |
| CM252016-180KL                             | 18               | ±10 %     | 25        | 2.52                  | 25              | 5.0            | 65            |
| CM252016-220KL                             | 22               | ±10 %     | 25        | 2.52                  | 22              | 5.8            | 60            |
| CM252016-270KL                             | 27               | ±10 %     | 20        | 2.52                  | 21              | 6.3            | 115           |
| CM252016-330KL                             | 33               | ±10 %     | 20        | 2.52                  | 20              | 7.1            | 110           |
| CM252016-390KL                             | 39               | ±10 %     | 20        | 2.52                  | 18              | 9.5            | 90            |
| CM252016-470KL                             | 47               | ±10 %     | 20        | 2.52                  | 17              | 11.0           | 80            |
| CM252016-560KL                             | 56               | ±10 %     | 20        | 2.52                  | 16              | 12.1           | 75            |
| CM252016-680KL                             | 68               | ±10 %     | 20        | 2.52                  | 15              | 16.6           | 70            |
| CM252016-820KL                             | 82               | ±10 %     | 20        | 2.52                  | 13              | 19.0           | 65            |
| CM252016-101KL                             | 100              | ±10 %     | 15        | 0.796                 | 12              | 21.0           | 60            |

Tighter tolerance available on request. Consult factory.

NOTE: 10 nH to 180 nH 'air core' / 220 nH to 220 uH 'ferrite core'

Specifications are subject to change without notice.

Customers should verify actual device performance in their specific applications.

# Chip Inductors - CM201212 Series Wirewound

**BOURNS®**

| RoHS Compliant<br>0805 Size<br>Part Number | Inductance<br>$\mu$ H | Tolerance  | Q<br>min. | Test Frequency<br>MHz | SRF min.<br>MHz | RDC<br>ohm max | IDC<br>mA max |
|--|-----------------------|------------|-----------|-----------------------|-----------------|----------------|---------------|
| CM201212-10NKL                             | 0.010                 | $\pm 10\%$ | 10        | 100                   | 3300            | 0.20           | 540           |
| CM201212-12NKL                             | 0.012                 | $\pm 10\%$ | 10        | 100                   | 3300            | 0.23           | 535           |
| CM201212-15NKL                             | 0.015                 | $\pm 10\%$ | 12        | 100                   | 3000            | 0.25           | 520           |
| CM201212-18NKL                             | 0.018                 | $\pm 10\%$ | 12        | 100                   | 3000            | 0.27           | 480           |
| CM201212-22NKL                             | 0.022                 | $\pm 10\%$ | 15        | 100                   | 2600            | 0.29           | 465           |
| CM201212-27NKL                             | 0.027                 | $\pm 10\%$ | 15        | 100                   | 2500            | 0.32           | 455           |
| CM201212-33NKL                             | 0.033                 | $\pm 10\%$ | 15        | 100                   | 2000            | 0.37           | 395           |
| CM201212-39NKL                             | 0.039                 | $\pm 10\%$ | 15        | 100                   | 2000            | 0.38           | 390           |
| CM201212-47NKL                             | 0.047                 | $\pm 10\%$ | 15        | 100                   | 1600            | 0.42           | 385           |
| CM201212-56NKL                             | 0.056                 | $\pm 10\%$ | 15        | 100                   | 1500            | 0.45           | 360           |
| CM201212-68NKL                             | 0.068                 | $\pm 10\%$ | 15        | 100                   | 1400            | 0.52           | 340           |
| CM201212-82NKL                             | 0.082                 | $\pm 10\%$ | 15        | 100                   | 1100            | 0.60           | 330           |
| CM201212-R10KL                             | 0.10                  | $\pm 10\%$ | 8         | 25.2                  | 800             | 0.78           | 285           |
| CM201212-R12KL                             | 0.12                  | $\pm 10\%$ | 8         | 25.2                  | 600             | 0.99           | 275           |
| CM201212-R15KL                             | 0.15                  | $\pm 10\%$ | 10        | 25.2                  | 600             | 1.47           | 230           |
| CM201212-R18KL                             | 0.18                  | $\pm 10\%$ | 10        | 25.2                  | 600             | 1.61           | 195           |
| CM201212-R22KL                             | 0.22                  | $\pm 10\%$ | 10        | 25.2                  | 500             | 1.84           | 170           |
| CM201212-R27KL                             | 0.27                  | $\pm 10\%$ | 10        | 25.2                  | 300             | 1.95           | 165           |
| CM201212-R33KL                             | 0.33                  | $\pm 10\%$ | 10        | 25.2                  | 200             | 2.16           | 160           |
| CM201212-R39KL                             | 0.39                  | $\pm 10\%$ | 10        | 25.2                  | 150             | 2.35           | 150           |
| CM201212-R47KL                             | 0.47                  | $\pm 10\%$ | 10        | 25.2                  | 150             | 2.57           | 145           |
| CM201212-R56KL                             | 0.56                  | $\pm 10\%$ | 10        | 25.2                  | 100             | 2.65           | 140           |
| CM201212-R68KL                             | 0.68                  | $\pm 10\%$ | 10        | 25.2                  | 100             | 2.99           | 130           |
| CM201212-R82KL                             | 0.82                  | $\pm 10\%$ | 10        | 25.2                  | 80              | 3.35           | 125           |
| CM201212-1R0KL                             | 1.0                   | $\pm 10\%$ | 8         | 7.96                  | 80              | 3.82           | 120           |

Tighter tolerance available on request. Consult factory.

# Chip Inductors - CM160808 Series Laser-cut Winding

**BOURNS®**

| RoHS Compliant<br>0603 Size<br>Part Number | Inductance<br>nH | Tolerance | Q<br>min. | Test Frequency<br>MHz | SRF min.<br>MHz | RDC<br>ohm max | IDC<br>mA max |
|--|------------------|-----------|-----------|-----------------------|-----------------|----------------|---------------|
| CM160808-1N5DL                             | 1.5              | ± 0.3 nH  | 8         | 100                   | 6000            | 0.07           | 500           |
| CM160808-1N8DL                             | 1.8              | ± 0.3 nH  | 8         | 100                   | 6000            | 0.08           | 500           |
| CM160808-2N2DL                             | 2.2              | ± 0.3 nH  | 8         | 100                   | 6000            | 0.09           | 500           |
| CM160808-2N7DL                             | 2.7              | ± 0.3 nH  | 8         | 100                   | 6000            | 0.10           | 500           |
| CM160808-3N3DL                             | 3.3              | ± 0.3 nH  | 9         | 100                   | 5500            | 0.12           | 500           |
| CM160808-3N9JL                             | 3.9              | ±5 %      | 9         | 100                   | 5500            | 0.15           | 450           |
| CM160808-4N7JL                             | 4.7              | ±5 %      | 9         | 100                   | 4800            | 0.17           | 450           |
| CM160808-5N6JL                             | 5.6              | ±5 %      | 9         | 100                   | 4600            | 0.18           | 430           |
| CM160808-6N8JL                             | 6.8              | ±5 %      | 9         | 100                   | 3550            | 0.20           | 430           |
| CM160808-8N2JL                             | 8.2              | ±5 %      | 9         | 100                   | 3500            | 0.28           | 400           |
| CM160808-10N1JL                            | 10               | ±5 %      | 10        | 100                   | 2800            | 0.32           | 400           |
| CM160808-12N1JL                            | 12               | ±5 %      | 10        | 100                   | 2800            | 0.35           | 400           |
| CM160808-15N1JL                            | 15               | ±5 %      | 10        | 100                   | 2500            | 0.41           | 350           |
| CM160808-18N1JL                            | 18               | ±5 %      | 10        | 100                   | 2300            | 0.45           | 350           |
| CM160808-22N1JL                            | 22               | ±5 %      | 10        | 100                   | 2000            | 0.50           | 300           |
| CM160808-27N1JL                            | 27               | ±5 %      | 10        | 100                   | 2000            | 0.55           | 300           |
| CM160808-33N1JL                            | 33               | ±5 %      | 10        | 100                   | 1800            | 0.60           | 300           |
| CM160808-39N1JL                            | 39               | ±5 %      | 11        | 100                   | 1800            | 0.80           | 300           |
| CM160808-47N1JL                            | 47               | ±5 %      | 11        | 100                   | 1800            | 0.95           | 250           |
| CM160808-56N1JL                            | 56               | ±5 %      | 12        | 100                   | 1800            | 1.2            | 250           |
| CM160808-68N1JL                            | 68               | ±5 %      | 12        | 100                   | 1500            | 1.3            | 250           |
| CM160808-82N1JL                            | 82               | ±5 %      | 12        | 100                   | 1500            | 1.5            | 250           |
| CM160808-R10JL                             | 100              | ±5 %      | 12        | 100                   | 1300            | 1.8            | 200           |
| CM160808-R12JL                             | 120              | ±5 %      | 5         | 25.2                  | 1200            | 3.0            | 130           |
| CM160808-R15JL                             | 150              | ±5 %      | 5         | 25.2                  | 1100            | 4.5            | 100           |
| CM160808-R18JL                             | 180              | ±5 %      | 4         | 25.2                  | 1000            | 6.5            | 80            |
| CM160808-R22JL                             | 220              | ±5 %      | 4         | 25.2                  | 900             | 7.5            | 70            |

Specifications are subject to change without notice.  
Customers should verify actual device performance in their specific applications.



# Chip Inductors - CM100505 Series Laser-cut Winding

**BOURNS®**

| RoHS Compliant<br>0402 Size<br>Part Number | Inductance<br>nH | Tolerance | Q<br>min. | Test Frequency<br>MHz | SRF min.<br>MHz | RDC<br>ohm max | IDC<br>mA max |
|--|------------------|-----------|-----------|-----------------------|-----------------|----------------|---------------|
| CM100505-1N0DL                             | 1.00             | ±0.3 nH   | 8         | 100                   | 6000            | 0.05           | 400           |
| CM100505-1N2DL                             | 1.20             | ±0.3 nH   | 8         | 100                   | 6000            | 0.06           | 400           |
| CM100505-1N5DL                             | 1.50             | ±0.3 nH   | 8         | 100                   | 6000            | 0.07           | 400           |
| CM100505-1N8DL                             | 1.80             | ±0.3 nH   | 8         | 100                   | 6000            | 0.08           | 400           |
| CM100505-2N2DL                             | 2.20             | ±0.3 nH   | 8         | 100                   | 6000            | 0.09           | 400           |
| CM100505-2N7DL                             | 2.70             | ±0.3 nH   | 8         | 100                   | 5500            | 0.10           | 400           |
| CM100505-3N3DL                             | 3.30             | ±0.3 nH   | 8         | 100                   | 5500            | 0.12           | 400           |
| CM100505-3N9DL                             | 3.90             | ±0.3 nH   | 8         | 100                   | 5200            | 0.15           | 360           |
| CM100505-4N7DL                             | 4.70             | ±0.3 nH   | 8         | 100                   | 4800            | 0.17           | 360           |
| CM100505-5N6DL                             | 5.60             | ±0.3 nH   | 8         | 100                   | 4600            | 0.19           | 340           |
| CM100505-6N8JL                             | 6.80             | ± 5 %     | 8         | 100                   | 4000            | 0.30           | 320           |
| CM100505-8N2JL                             | 8.20             | ± 5 %     | 8         | 100                   | 3500            | 0.35           | 320           |
| CM100505-10NJL                             | 10.00            | ± 5 %     | 8         | 100                   | 2800            | 0.41           | 320           |
| CM100505-12NJL                             | 12.00            | ± 5 %     | 8         | 100                   | 2800            | 0.45           | 320           |
| CM100505-15NJL                             | 15.00            | ± 5 %     | 8         | 100                   | 2500            | 0.60           | 240           |
| CM100505-18NJL                             | 18.00            | ± 5 %     | 8         | 100                   | 2200            | 0.70           | 240           |
| CM100505-22NJL                             | 22.00            | ± 5 %     | 8         | 100                   | 2000            | 0.80           | 200           |
| CM100505-27NJL                             | 27.00            | ± 5 %     | 8         | 100                   | 1800            | 1.2            | 200           |
| CM100505-33NJL                             | 33.00            | ± 5 %     | 8         | 100                   | 1800            | 1.4            | 170           |
| CM100505-39NJL                             | 39.00            | ± 5 %     | 8         | 100                   | 1800            | 1.7            | 150           |
| CM100505-47NJL                             | 47.00            | ± 5 %     | 8         | 100                   | 1800            | 2.1            | 140           |
| CM100505-56NJL                             | 56.00            | ± 5 %     | 8         | 100                   | 1500            | 2.5            | 130           |
| CM100505-68NJL                             | 68.00            | ± 5 %     | 8         | 100                   | 1500            | 4.0            | 120           |
| CM100505-82NJL                             | 82.00            | ± 5 %     | 8         | 100                   | 1400            | 4.5            | 110           |
| CM100505-R10JL                             | 100.00           | ± 5 %     | 8         | 100                   | 1200            | 5.5            | 90            |

Компания «Океан Электроники» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

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- Широкая линейка поставок активных и пассивных импортных электронных компонентов (более 30 млн. наименований);
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
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- Помощь Конструкторского Отдела и консультации квалифицированных инженеров;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Поставка электронных компонентов под контролем ВП;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- При необходимости вся продукция военного и аэрокосмического назначения проходит испытания и сертификацию в лаборатории (по согласованию с заказчиком);
- Поставка специализированных компонентов военного и аэрокосмического уровня качества (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Actel, Aeroflex, Peregrine, VPT, Syfer, Eurofarad, Texas Instruments, MS Kennedy, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Компания «Океан Электроники» является официальным дистрибьютором и эксклюзивным представителем в России одного из крупнейших производителей разъемов военного и аэрокосмического назначения «JONHON», а так же официальным дистрибьютором и эксклюзивным представителем в России производителя высокотехнологичных и надежных решений для передачи СВЧ сигналов «FORSTAR».



## JONHON

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«FORSTAR» (основан в 1998 г.)

ВЧ соединители, коаксиальные кабели,  
кабельные сборки и микроволновые компоненты:

(Применяются в телекоммуникациях гражданского и специального назначения, в средствах связи, РЛС, а так же военной, авиационной и аэрокосмической отраслях промышленности).



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