

# Power Inductor

## SMD /Molding Type



### WCI series

#### FEATURES

1. Leaching resistant terminations due to metal tab electrodes.
2. Coils encapsulated in heat-proof resin make high accurate dimensions and resistant to mechanical shock or pressure.
3. High resistance to heat and humidity.
4. The products contain no lead and also support lead-free soldering.

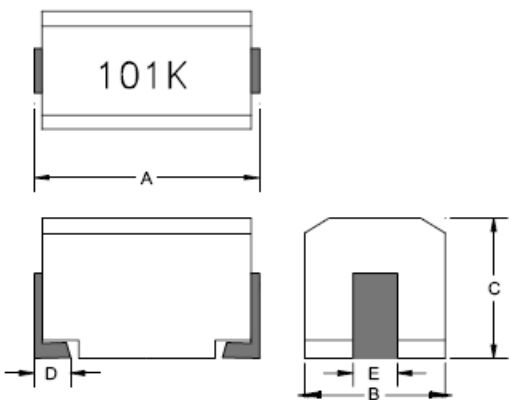


#### APPLICATIONS

- Microtelevisions, liquid crystal television, video camera, portable VCRs, car radios, car stereos, thin type radio, television tuners, mobile telephones, radio equipment, modules such as hybrid ICs.

#### PARTNUMBER

#### DIMENSIONS



| Size | A(mm)   | B(mm)   | C(mm)   | D(mm)    | E(mm)   |
|------|---------|---------|---------|----------|---------|
| 3225 | 3.2±0.3 | 2.5±0.2 | 2.2±0.2 | 0.6 typ. | 1.0±0.2 |
| 4532 | 4.5±0.3 | 3.2±0.2 | 3.2±0.2 | 1.2 typ. | 1.1±0.2 |

|     |      |   |     |   |   |   |
|-----|------|---|-----|---|---|---|
| WCI | 3225 | — | 1R8 | K | F | V |
| A   | B    |   | C   | D | E | F |

A : Series

B : Dimension A x B

C : Inductance

D : Inductance Tolerance

E : Lead Free Code

F : ID Code

1R8=1.8uH

K=±10%, J=±5%,

L=±15%, M=±20%

## WCI3225

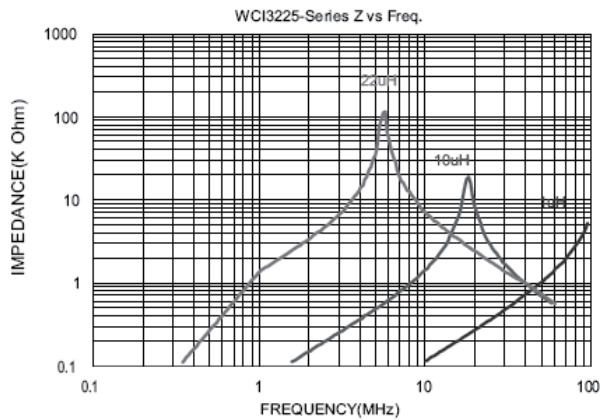
| Part Number  | Inductance<br>( $\mu$ H) | Q<br>(min) | Test Frequency<br>(MHz) | SRF<br>(MHz) min | DCR ( $\Omega$ )<br>Max | Rated Current<br>(mA) |
|--------------|--------------------------|------------|-------------------------|------------------|-------------------------|-----------------------|
| WCI3225-010K | 0.010                    | 15         | 100                     | 2500             | 0.13                    | 450                   |
| WCI3225-012K | 0.012                    | 17         | 100                     | 2300             | 0.14                    | 450                   |
| WCI3225-015K | 0.015                    | 19         | 100                     | 2100             | 0.16                    | 450                   |
| WCI3225-018K | 0.018                    | 21         | 100                     | 1900             | 0.18                    | 450                   |
| WCI3225-022K | 0.022                    | 23         | 100                     | 1700             | 0.20                    | 450                   |
| WCI3225-027K | 0.027                    | 23         | 100                     | 1500             | 0.22                    | 450                   |
| WCI3225-033K | 0.033                    | 25         | 100                     | 1400             | 0.24                    | 450                   |
| WCI3225-039K | 0.039                    | 25         | 100                     | 1300             | 0.27                    | 450                   |
| WCI3225-047K | 0.047                    | 26         | 100                     | 1200             | 0.30                    | 450                   |
| WCI3225-056K | 0.056                    | 26         | 100                     | 1100             | 0.33                    | 450                   |
| WCI3225-068K | 0.068                    | 27         | 100                     | 1000             | 0.36                    | 450                   |
| WCI3225-082K | 0.082                    | 27         | 100                     | 900              | 0.40                    | 450                   |
| WCI3225-R10K | 0.10                     | 28         | 100                     | 700              | 0.44                    | 450                   |
| WCI3225-R12K | 0.12                     | 30         | 25.2                    | 500              | 0.22                    | 450                   |
| WCI3225-R15K | 0.15                     | 30         | 25.2                    | 450              | 0.25                    | 450                   |
| WCI3225-R18K | 0.18                     | 30         | 25.2                    | 400              | 0.28                    | 450                   |
| WCI3225-R22K | 0.22                     | 30         | 25.2                    | 350              | 0.30                    | 450                   |
| WCI3225-R27K | 0.27                     | 30         | 25.2                    | 320              | 0.36                    | 450                   |
| WCI3225-R33K | 0.33                     | 30         | 25.2                    | 300              | 0.40                    | 450                   |
| WCI3225-R39K | 0.39                     | 30         | 25.2                    | 250              | 0.45                    | 450                   |
| WCI3225-R47K | 0.47                     | 30         | 25.2                    | 220              | 0.50                    | 450                   |
| WCI3225-R56K | 0.56                     | 30         | 25.2                    | 180              | 0.55                    | 450                   |
| WCI3225-R68K | 0.68                     | 30         | 25.2                    | 160              | 0.60                    | 450                   |
| WCI3225-R82K | 0.82                     | 30         | 25.2                    | 140              | 0.65                    | 450                   |
| WCI3225-1R0K | 1.0                      | 30         | 7.96                    | 120              | 0.70                    | 400                   |
| WCI3225-1R2K | 1.2                      | 30         | 7.96                    | 100              | 0.75                    | 390                   |
| WCI3225-1R5K | 1.5                      | 30         | 7.96                    | 85               | 0.85                    | 370                   |
| WCI3225-1R8K | 1.8                      | 30         | 7.96                    | 80               | 0.90                    | 350                   |
| WCI3225-2R2K | 2.2                      | 30         | 7.96                    | 75               | 1.0                     | 320                   |
| WCI3225-2R7K | 2.7                      | 30         | 7.96                    | 70               | 1.1                     | 290                   |
| WCI3225-3R3K | 3.3                      | 30         | 7.96                    | 60               | 1.2                     | 260                   |
| WCI3225-3R9K | 3.9                      | 30         | 7.96                    | 55               | 1.3                     | 250                   |
| WCI3225-4R7K | 4.7                      | 30         | 7.96                    | 50               | 1.5                     | 220                   |
| WCI3225-5R6K | 5.6                      | 30         | 7.96                    | 47               | 1.6                     | 200                   |
| WCI3225-6R8K | 6.8                      | 30         | 7.96                    | 43               | 1.8                     | 180                   |
| WCI3225-8R2K | 8.2                      | 30         | 7.96                    | 40               | 2.0                     | 170                   |
| WCI3225-100K | 10                       | 30         | 2.52                    | 36               | 2.1                     | 150                   |
| WCI3225-120K | 12                       | 30         | 2.52                    | 33               | 2.5                     | 140                   |
| WCI3225-150K | 15                       | 30         | 2.52                    | 30               | 2.8                     | 130                   |
| WCI3225-180K | 18                       | 30         | 2.52                    | 27               | 3.3                     | 120                   |
| WCI3225-220K | 22                       | 30         | 2.52                    | 25               | 3.7                     | 110                   |
| WCI3225-270K | 27                       | 30         | 2.52                    | 20               | 5.0                     | 80                    |
| WCI3225-330K | 33                       | 30         | 2.52                    | 17               | 5.6                     | 70                    |
| WCI3225-390K | 39                       | 30         | 2.52                    | 16               | 6.4                     | 65                    |
| WCI3225-470K | 47                       | 30         | 2.52                    | 15               | 7.0                     | 60                    |
| WCI3225-560K | 56                       | 30         | 2.52                    | 16               | 8.0                     | 55                    |
| WCI3225-680K | 68                       | 30         | 2.52                    | 12               | 9.0                     | 50                    |
| WCI3225-820K | 82                       | 30         | 2.52                    | 11               | 10                      | 45                    |
| WCI3225-101K | 100                      | 20         | 0.796                   | 10               | 10                      | 40                    |
| WCI3225-121K | 120                      | 20         | 0.796                   | 10               | 11                      | 70                    |
| WCI3225-151K | 150                      | 20         | 0.796                   | 8                | 15                      | 65                    |
| WCI3225-181K | 180                      | 20         | 0.796                   | 7                | 17                      | 65                    |
| WCI3225-221K | 220                      | 20         | 0.796                   | 7                | 21                      | 50                    |

# Power Inductor

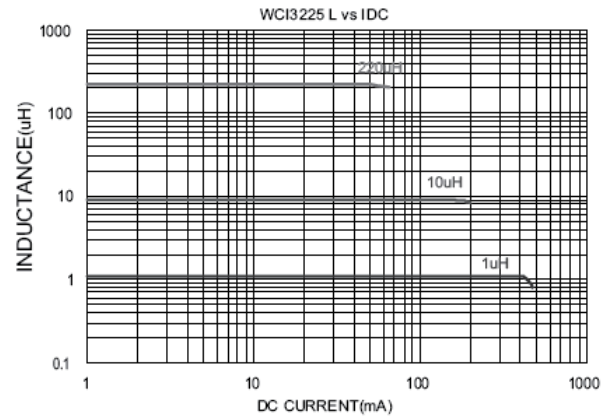
## SMD /Molding Type



■ Impedance - Frequency Characteristics



■ Inductance - Current Characteristics



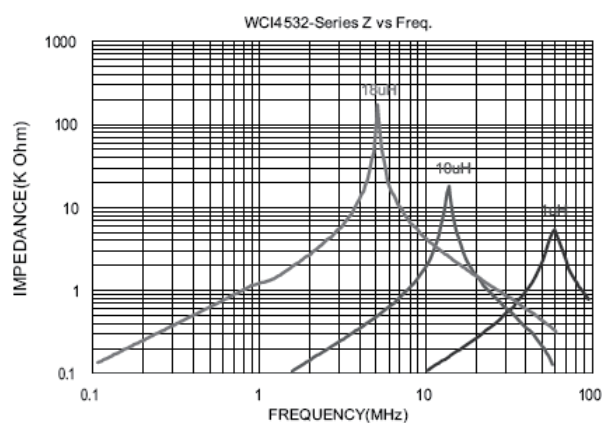
## WCI4532

| Part Number  | Inductance (uH) | Q (min) | Test Frequency (MHz) | SRF (MHz) min | DCR (Ω) Max | Rated Current (mA) |
|--------------|-----------------|---------|----------------------|---------------|-------------|--------------------|
| WCI4532-R10K | 0.10            | 35      | 25.2                 | 300           | 0.18        | 800                |
| WCI4532-R12K | 0.12            | 35      | 25.2                 | 280           | 0.20        | 770                |
| WCI4532-R15K | 0.15            | 35      | 25.2                 | 250           | 0.22        | 730                |
| WCI4532-R18K | 0.18            | 35      | 25.2                 | 200           | 0.25        | 665                |
| WCI4532-R22K | 0.22            | 35      | 25.2                 | 220           | 0.24        | 700                |
| WCI4532-R27K | 0.27            | 40      | 25.2                 | 180           | 0.26        | 635                |
| WCI4532-R33K | 0.33            | 40      | 25.2                 | 165           | 0.28        | 605                |
| WCI4532-R39K | 0.39            | 40      | 25.2                 | 150           | 0.30        | 575                |
| WCI4532-R47K | 0.47            | 40      | 25.2                 | 145           | 0.32        | 545                |
| WCI4532-R56K | 0.56            | 40      | 25.2                 | 140           | 0.36        | 520                |
| WCI4532-R68K | 0.68            | 40      | 25.2                 | 135           | 0.40        | 500                |
| WCI4532-R82K | 0.82            | 40      | 25.2                 | 130           | 0.45        | 475                |
| WCI4532-1R0K | 1.0             | 50      | 7.96                 | 100           | 0.50        | 450                |
| WCI4532-1R2K | 1.2             | 50      | 7.96                 | 80            | 0.55        | 430                |
| WCI4532-1R5K | 1.5             | 50      | 7.96                 | 70            | 0.60        | 410                |
| WCI4532-1R8K | 1.8             | 50      | 7.96                 | 60            | 0.65        | 390                |
| WCI4532-2R2K | 2.2             | 50      | 7.96                 | 55            | 0.70        | 380                |
| WCI4532-2R7K | 2.7             | 50      | 7.96                 | 50            | 0.75        | 370                |
| WCI4532-3R3K | 3.3             | 50      | 7.96                 | 45            | 0.80        | 355                |
| WCI4532-3R9K | 3.9             | 50      | 7.96                 | 40            | 0.90        | 330                |
| WCI4532-4R7K | 4.7             | 50      | 7.96                 | 35            | 1.00        | 315                |
| WCI4532-5R6K | 5.6             | 50      | 7.96                 | 33            | 1.10        | 300                |
| WCI4532-6R8K | 6.8             | 50      | 7.96                 | 27            | 1.20        | 285                |
| WCI4532-8R2K | 8.2             | 50      | 7.96                 | 25            | 1.40        | 270                |
| WCI4532-100K | 10              | 50      | 2.52                 | 20            | 1.60        | 250                |
| WCI4532-120K | 12              | 50      | 2.52                 | 18            | 2.00        | 225                |
| WCI4532-150K | 15              | 50      | 2.52                 | 17            | 2.50        | 200                |
| WCI4532-180K | 18              | 50      | 2.52                 | 15            | 2.80        | 190                |
| WCI4532-220K | 22              | 50      | 2.52                 | 13            | 3.20        | 180                |
| WCI4532-270K | 27              | 50      | 2.52                 | 12            | 3.60        | 170                |
| WCI4532-330K | 33              | 50      | 2.52                 | 11            | 4.00        | 160                |
| WCI4532-390K | 39              | 50      | 2.52                 | 10            | 4.50        | 150                |
| WCI4532-470K | 47              | 50      | 2.52                 | 10            | 5.00        | 140                |

## WCI4532

| Part Number  | Inductance<br>( $\mu$ H) | Q<br>(min) | Test Frequency<br>(MHz) | SRF<br>(MHz) min | DCR ( $\Omega$ )<br>Max | Rated Current<br>(mA) |
|--------------|--------------------------|------------|-------------------------|------------------|-------------------------|-----------------------|
| WCI4532-560K | 56                       | 50         | 2.52                    | 9.0              | 5.50                    | 135                   |
| WCI4532-680K | 68                       | 50         | 2.52                    | 9.0              | 6.0                     | 130                   |
| WCI4532-820K | 82                       | 50         | 2.52                    | 8.0              | 7.0                     | 120                   |
| WCI4532-101K | 100                      | 40         | 0.796                   | 8.0              | 8.0                     | 110                   |
| WCI4532-121K | 120                      | 40         | 0.796                   | 6.0              | 8.0                     | 110                   |
| WCI4532-151K | 150                      | 40         | 0.796                   | 5.0              | 9.0                     | 105                   |
| WCI4532-181K | 180                      | 40         | 0.796                   | 5.0              | 9.5                     | 102                   |
| WCI4532-221K | 220                      | 40         | 0.796                   | 4.0              | 10                      | 100                   |
| WCI4532-271K | 270                      | 40         | 0.796                   | 3.5              | 14                      | 85                    |
| WCI4532-331K | 330                      | 40         | 0.796                   | 3.5              | 14                      | 85                    |
| WCI4532-391K | 390                      | 40         | 0.796                   | 3.0              | 18                      | 80                    |
| WCI4532-471K | 470                      | 40         | 0.796                   | 3.0              | 26                      | 62                    |
| WCI4532-561K | 560                      | 30         | 0.796                   | 3.0              | 30                      | 50                    |
| WCI4532-681K | 680                      | 30         | 0.796                   | 3.0              | 30                      | 50                    |
| WCI4532-821K | 820                      | 30         | 0.796                   | 2.5              | 35                      | 30                    |
| WCI4532-102K | 1000                     | 20         | 0.252                   | 2.5              | 40                      | 30                    |

### ■ Impedance v.s. Frequency Characteristics



### ■ Inductance v.s. DC Current Characteristics

