



# Power Inductor

## SMD / Unshielded Type



### CHTPW series

#### FEATURES

1. Low profile very effective in space-conscious applications.
2. Low resistance and high energy storage.
3. The products contain no lead and also support lead-free soldering.



#### APPLICATIONS

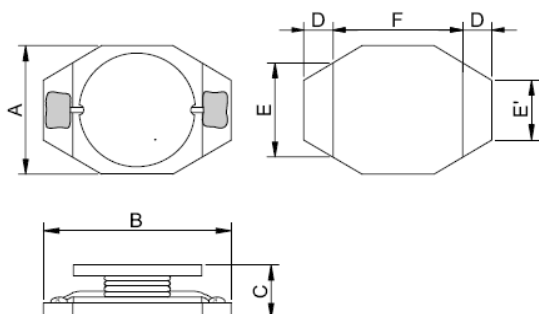
- Excellent for DC-DC Converter used in notebooks computers,
- PDA and mobile handphones.
- Step-up or step-down converters, flash memory.

#### PARTNUMBER

|       |      |   |     |   |   |   |
|-------|------|---|-----|---|---|---|
| CHTPW | 5022 | — | 2R2 | M | F | V |
| A     | B    |   | C   | D | E | F |

A: Series  
 B: Dimension  
 C: Inductance  
 D: Inductance Tolerance K=±10%, M=±20%  
 E: Lead Free Code  
 F: ID Code

#### DIMENSIONS



| Size | A(mm)      | B(mm)       | C(mm)      | D(mm)      | E(mm)      | F(mm)       |
|------|------------|-------------|------------|------------|------------|-------------|
| 1608 | 4.45 max.  | 6.60 max.   | 2.92 max.  | 1.02 ± 0.2 | 1.27 ± 0.2 | 4.32 ± 0.3  |
| 2012 | 8.00 ± 0.2 | 10.50 ± 0.2 | 5.00 ± 0.3 | 2.10 ± 0.2 | 2.00 ± 0.2 | 6.00 ± 0.3  |
| 3308 | 10.0 ± 0.2 | 12.70 ± 0.2 | 3.00 ± 0.3 | 2.40 ± 0.2 | 2.20 ± 0.2 | 7.60 ± 0.3  |
| 3316 | 10.0 ± 0.2 | 12.70 ± 0.2 | 5.00 ± 0.3 | 2.40 ± 0.2 | 2.20 ± 0.2 | 7.60 ± 0.3  |
| 3340 | 10.0 ± 0.2 | 12.70 ± 0.2 | 11.0 ± 0.5 | 2.40 ± 0.2 | 2.20 ± 0.2 | 7.60 ± 0.3  |
| 5022 | 15.0 ± 0.3 | 18.40 ± 0.3 | 7.00 ± 0.5 | 2.40 ± 0.2 | 2.20 ± 0.2 | 13.30 ± 0.3 |

## CHTPW 1608

| BW Part Number  | Inductance<br>( $\mu$ H) | Test Frequency<br>(Hz) | SRF<br>(MHz) typ. | DCR ( $\Omega$ )<br>Max | I rms<br>(A) | I sat<br>(A) |
|-----------------|--------------------------|------------------------|-------------------|-------------------------|--------------|--------------|
| CHTPW 1608-1R0M | 1.0 $\pm$ 20%            | 0.1V/100K              | 130.0             | 0.05                    | 2.90         | 2.90         |
| CHTPW 1608-1R5M | 1.5 $\pm$ 20%            | 0.1V/100K              | 115.0             | 0.05                    | 2.80         | 2.60         |
| CHTPW 1608-2R2M | 2.2 $\pm$ 20%            | 0.1V/100K              | 90.0              | 0.07                    | 2.40         | 2.30         |
| CHTPW 1608-3R3M | 3.3 $\pm$ 20%            | 0.1V/100K              | 70.0              | 0.08                    | 2.00         | 2.00         |
| CHTPW 1608-4R7M | 4.7 $\pm$ 20%            | 0.1V/100K              | 50.0              | 0.09                    | 1.50         | 1.50         |
| CHTPW 1608-6R8M | 6.8 $\pm$ 20%            | 0.1V/100K              | 45.0              | 0.13                    | 1.40         | 1.20         |
| CHTPW 1608-100M | 10 $\pm$ 20%             | 0.1V/100K              | 35.0              | 0.16                    | 1.10         | 1.10         |
| CHTPW 1608-150M | 15 $\pm$ 20%             | 0.1V/100K              | 30.0              | 0.23                    | 1.00         | 0.90         |
| CHTPW 1608-220M | 22 $\pm$ 20%             | 0.1V/100K              | 20.0              | 0.27                    | 0.80         | 0.70         |
| CHTPW 1608-330M | 33 $\pm$ 20%             | 0.1V/100K              | 15.0              | 0.51                    | 0.60         | 0.58         |
| CHTPW 1608-470M | 47 $\pm$ 20%             | 0.1V/100K              | 14.0              | 0.64                    | 0.50         | 0.50         |
| CHTPW 1608-680M | 68 $\pm$ 20%             | 0.1V/100K              | 11.0              | 0.86                    | 0.40         | 0.50         |
| CHTPW 1608-101M | 100 $\pm$ 20%            | 0.1V/100K              | 9.0               | 1.27                    | 0.30         | 0.31         |
| CHTPW 1608-151M | 150 $\pm$ 20%            | 0.1V/100K              | 6.0               | 2.00                    | 0.25         | 0.27         |
| CHTPW 1608-221M | 220 $\pm$ 20%            | 0.1V/100K              | 5.5               | 3.11                    | 0.20         | 0.22         |
| CHTPW 1608-331M | 330 $\pm$ 20%            | 0.1V/100K              | 5.0               | 3.80                    | 0.16         | 0.18         |
| CHTPW 1608-471M | 470 $\pm$ 20%            | 0.1V/100K              | 4.0               | 5.06                    | 0.15         | 0.16         |
| CHTPW 1608-681M | 680 $\pm$ 20%            | 0.1V/100K              | 3.0               | 9.20                    | 0.12         | 0.14         |
| CHTPW 1608-102M | 1000 $\pm$ 20%           | 0.1V/100K              | 2.0               | 13.80                   | 0.07         | 0.10         |

## CHTPW 2012

| BW Part Number  | Inductance<br>( $\mu$ H) | Test Frequency<br>(Hz) | SRF<br>(MHz) typ. | DCR ( $\Omega$ )<br>Max | I rms<br>(A) | I sat<br>(A) |
|-----------------|--------------------------|------------------------|-------------------|-------------------------|--------------|--------------|
| CHTPW 2012-3R3M | 3.3 $\pm$ 20%            | 0.1V/100K              | 50.0              | 0.030                   | 3.70         | 7.0          |
| CHTPW 2012-4R7M | 4.7 $\pm$ 20%            | 0.1V/100K              | 40.0              | 0.018                   | 3.30         | 6.0          |
| CHTPW 2012-6R8M | 6.8 $\pm$ 20%            | 0.1V/100K              | 30.0              | 0.050                   | 2.70         | 5.0          |
| CHTPW 2012-100M | 10 $\pm$ 20%             | 0.1V/100K              | 23.0              | 0.060                   | 2.30         | 4.0          |
| CHTPW 2012-150M | 15 $\pm$ 20%             | 0.1V/100K              | 20.0              | 0.080                   | 2.10         | 3.0          |
| CHTPW 2012-220M | 22 $\pm$ 20%             | 0.1V/100K              | 16.0              | 0.130                   | 1.60         | 2.5          |
| CHTPW 2012-330M | 33 $\pm$ 20%             | 0.1V/100K              | 12.0              | 0.180                   | 1.30         | 2.0          |
| CHTPW 2012-470M | 47 $\pm$ 20%             | 0.1V/100K              | 11.0              | 0.260                   | 1.10         | 1.8          |
| CHTPW 2012-680M | 68 $\pm$ 20%             | 0.1V/100K              | 9.0               | 0.350                   | 1.00         | 1.5          |
| CHTPW 2012-101M | 100 $\pm$ 20%            | 0.1V/100K              | 7.0               | 0.580                   | 0.70         | 1.0          |
| CHTPW 2012-151M | 150 $\pm$ 20%            | 0.1V/100K              | 5.0               | 0.750                   | 0.60         | 0.9          |
| CHTPW 2012-221M | 220 $\pm$ 20%            | 0.1V/100K              | 4.0               | 1.050                   | 0.50         | 0.8          |
| CHTPW 2012-331M | 330 $\pm$ 20%            | 0.1V/100K              | 3.5               | 1.600                   | 0.45         | 0.6          |

## CHTPW 3308

| BW Part Number  | Inductance<br>( $\mu$ H) | Test Frequency<br>(Hz) | SRF<br>(MHz) typ. | DCR ( $\Omega$ )<br>Max | I rms<br>(A) | I sat<br>(A) |
|-----------------|--------------------------|------------------------|-------------------|-------------------------|--------------|--------------|
| CHTPW 3308-100M | 10 $\pm$ 20%             | 0.1V/100K              | 35.0              | 0.11                    | 2.00         | 2.40         |
| CHTPW 3308-150M | 15 $\pm$ 20%             | 0.1V/100K              | 33.0              | 0.15                    | 1.50         | 2.00         |
| CHTPW 3308-220M | 22 $\pm$ 20%             | 0.1V/100K              | 25.0              | 0.23                    | 1.30         | 1.60         |
| CHTPW 3308-330M | 33 $\pm$ 20%             | 0.1V/100K              | 19.0              | 0.30                    | 1.10         | 1.40         |
| CHTPW 3308-470M | 47 $\pm$ 20%             | 0.1V/100K              | 14.0              | 0.39                    | 0.80         | 1.00         |
| CHTPW 3308-680M | 68 $\pm$ 20%             | 0.1V/100K              | 12.0              | 0.66                    | 0.70         | 0.90         |
| CHTPW 3308-101M | 100 $\pm$ 20%            | 0.1V/100K              | 10.0              | 0.84                    | 0.60         | 0.70         |
| CHTPW 3308-151M | 150 $\pm$ 20%            | 0.1V/100K              | 8.0               | 1.20                    | 0.50         | 0.60         |
| CHTPW 3308-221M | 220 $\pm$ 20%            | 0.1V/100K              | 6.0               | 1.90                    | 0.40         | 0.50         |
| CHTPW 3308-331M | 330 $\pm$ 20%            | 0.1V/100K              | 5.0               | 2.70                    | 0.30         | 0.40         |
| CHTPW 3308-471M | 470 $\pm$ 20%            | 0.1V/100K              | 4.0               | 4.00                    | 0.20         | 0.20         |
| CHTPW 3308-681M | 680 $\pm$ 20%            | 0.1V/100               | 3.0               | 5.30                    | 0.10         | 0.20         |
| CHTPW 3308-102M | 1000 $\pm$ 20%           | 0.1V/100               | 2.5               | 8.40                    | 0.05         | 0.10         |



# Power Inductor

## SMD / Unshielded Type



### CHTPW 3316

| BW Part Number  | Inductance (μH) | Test Frequency (Hz) | SRF (MHz) typ. | DCR (Ω) Max | I rms (A) | I sat (A) |
|-----------------|-----------------|---------------------|----------------|-------------|-----------|-----------|
| CHTPW 3316-1R0M | 1.0± 20%        | 0.1V/100K           | 150.0          | 0.009       | 6.8       | 9.0       |
| CHTPW 3316-1R5M | 1.5± 20%        | 0.1V/100K           | 100.0          | 0.010       | 6.4       | 8.0       |
| CHTPW 3316-2R2M | 2.2± 20%        | 0.1V/100K           | 85.0           | 0.012       | 6.1       | 7.0       |
| CHTPW 3316-3R3M | 3.3± 20%        | 0.1V/100K           | 60.0           | 0.015       | 5.4       | 5.8       |
| CHTPW 3316-4R7M | 4.7± 20%        | 0.1V/100K           | 45.0           | 0.018       | 4.8       | 5.2       |
| CHTPW 3316-6R8M | 6.8± 20%        | 0.1V/100K           | 35.0           | 0.027       | 4.4       | 4.3       |
| CHTPW 3316-100M | 10 ± 20%        | 0.1V/100K           | 25.0           | 0.038       | 3.9       | 3.4       |
| CHTPW 3316-150M | 15 ± 20%        | 0.1V/100K           | 20.0           | 0.046       | 3.1       | 3.0       |
| CHTPW 3316-220M | 22 ± 20%        | 0.1V/100K           | 18.0           | 0.085       | 2.7       | 2.5       |
| CHTPW 3316-330M | 33 ± 20%        | 0.1V/100K           | 14.0           | 0.100       | 2.1       | 2.0       |
| CHTPW 3316-470M | 47 ± 20%        | 0.1V/100K           | 11.0           | 0.140       | 1.8       | 1.8       |
| CHTPW 3316-680M | 68 ± 20%        | 0.1V/100K           | 10.0           | 0.200       | 1.5       | 1.4       |
| CHTPW 3316-101M | 100± 20%        | 0.1V/100K           | 7.0            | 0.280       | 1.3       | 1.1       |
| CHTPW 3316-151M | 150± 20%        | 0.1V/100K           | 6.5            | 0.400       | 1.0       | 0.9       |
| CHTPW 3316-221M | 220± 20%        | 0.1V/100K           | 5.0            | 0.610       | 0.8       | 0.8       |
| CHTPW 3316-331M | 330± 20%        | 0.1V/100K           | 4.0            | 1.020       | 0.6       | 0.6       |
| CHTPW 3316-471M | 470± 20%        | 0.1V/100K           | 3.0            | 1.270       | 0.5       | 0.5       |
| CHTPW 3316-681M | 680± 20%        | 0.1V/100K           | 2.5            | 2.020       | 0.4       | 0.4       |
| CHTPW 3316-102M | 1000 ± 20%      | 0.1V/100K           | 2.0            | 3.000       | 0.3       | 0.3       |

### CHTPW 3340

| BW Part Number  | Inductance (μH) | Test Frequency (Hz) | SRF (MHz) typ. | DCR (Ω) Max | I rms (A) | I sat (A) |
|-----------------|-----------------|---------------------|----------------|-------------|-----------|-----------|
| CHTPW 3340-100M | 10 ± 20%        | 0.1V/100K           | 23.0           | 0.040       | 3.50      | 7.0       |
| CHTPW 3340-150M | 15 ± 20%        | 0.1V/100K           | 14.0           | 0.050       | 3.20      | 5.8       |
| CHTPW 3340-220M | 22 ± 20%        | 0.1V/100K           | 8.5            | 0.066       | 2.90      | 4.8       |
| CHTPW 3340-330M | 33 ± 20%        | 0.1V/100K           | 7.0            | 0.080       | 2.35      | 3.8       |
| CHTPW 3340-470M | 47 ± 20%        | 0.1V/100K           | 6.5            | 0.110       | 2.10      | 3.4       |
| CHTPW 3340-680M | 68 ± 20%        | 0.1V/100K           | 4.5            | 0.170       | 1.90      | 2.7       |
| CHTPW 3340-101M | 100± 20%        | 0.1V/100K           | 4.0            | 0.220       | 1.55      | 2.2       |
| CHTPW 3340-151M | 150± 20%        | 0.1V/100K           | 3.0            | 0.340       | 1.35      | 1.9       |
| CHTPW 3340-221M | 220± 20%        | 0.1V/100K           | 2.5            | 0.440       | 1.00      | 1.5       |
| CHTPW 3340-331M | 330± 20%        | 0.1V/100K           | 2.3            | 0.700       | 0.90      | 1.3       |
| CHTPW 3340-471M | 470± 20%        | 0.1V/100K           | 2.0            | 0.950       | 0.75      | 1.0       |
| CHTPW 3340-681M | 680± 20%        | 0.1V/100K           | 1.5            | 1.200       | 0.55      | 0.9       |
| CHTPW 3340-102M | 1000 ± 20%      | 0.1V/100K           | 1.3            | 2.00        | 0.50      | 0.7       |

### CHTPW 5022

| BW Part Number  | Inductance (μH) | Test Frequency (Hz) | SRF (MHz) typ. | DCR (Ω) Max | I rms (A) | I sat (A) |
|-----------------|-----------------|---------------------|----------------|-------------|-----------|-----------|
| CHTPW 5022-1R0M | 1.0± 20%        | 0.1V/100K           | 140            | 0.009       | 8.60      | 20.0      |
| CHTPW 5022-1R5M | 1.5± 20%        | 0.1V/100K           | 110            | 0.012       | 7.50      | 18.0      |
| CHTPW 5022-2R2M | 2.2± 20%        | 0.1V/100K           | 75             | 0.014       | 7.10      | 16.0      |
| CHTPW 5022-3R3M | 3.3± 20%        | 0.1V/100K           | 70             | 0.018       | 6.20      | 14.0      |
| CHTPW 5022-5R6M | 5.6± 20%        | 0.1V/100K           | 45             | 0.020       | 5.30      | 12.0      |
| CHTPW 5022-100M | 10 ± 20%        | 0.1V/100K           | 21             | 0.031       | 4.30      | 10.0      |
| CHTPW 5022-150M | 15 ± 20%        | 0.1V/100K           | 16             | 0.036       | 4.00      | 8.0       |
| CHTPW 5022-220M | 22 ± 20%        | 0.1V/100K           | 13             | 0.047       | 3.50      | 7.0       |
| CHTPW 5022-330M | 33 ± 20%        | 0.1V/100K           | 11             | 0.066       | 3.00      | 5.5       |
| CHTPW 5022-470M | 47 ± 20%        | 0.1V/100K           | 9.0            | 0.086       | 2.60      | 4.5       |
| CHTPW 5022-680M | 68 ± 20%        | 0.1V/100K           | 6.5            | 0.130       | 2.30      | 3.5       |
| CHTPW 5022-101M | 100± 20%        | 0.1V/100K           | 5.7            | 0.190       | 1.80      | 3.0       |
| CHTPW 5022-151M | 150± 20%        | 0.1V/100K           | 4.5            | 0.250       | 1.50      | 2.6       |
| CHTPW 5022-221M | 220± 20%        | 0.1V/100K           | 3.7            | 0.380       | 1.20      | 2.4       |
| CHTPW 5022-331M | 330± 20%        | 0.1V/100K           | 3.0            | 0.560       | 1.00      | 1.9       |
| CHTPW 5022-471M | 470± 20%        | 0.1V/100K           | 2.7            | 0.850       | 0.82      | 1.4       |
| CHTPW 5022-681M | 680± 20%        | 0.1V/100K           | 2.2            | 1.100       | 0.72      | 1.2       |
| CHTPW 5022-102M | 1000 ± 20%      | 0.1V/100K           | 2.0            | 1.300       | 0.56      | 1.0       |