



## HCPI 100 SERIES

### HIGH CURRENT INDUCTOR



COTS+

| Inductance Range (uH) | DCR max (mOhms) | Current Rating (A) |
|-----------------------|-----------------|--------------------|
| 0.19 to 15            | 0.42 to 45      | 6 to 40            |

### ELECTRICAL SPECIFICATIONS

- Temperature Rise @ Rated Current:  $\leq 40^{\circ}\text{C}$
- Operating Temperature:  $-55^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$
- Standard Tolerance: 20%
- Saturation Current ( $I_{\text{sat}}$ ) will cause initial inductance drop approximate 20%
- All test data is referenced @  $25^{\circ}\text{C}$  ambient

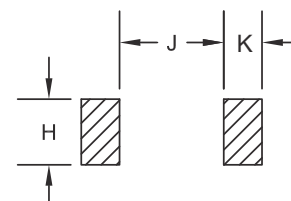
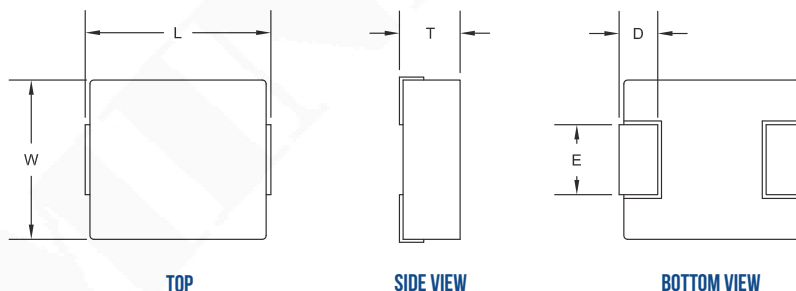
### FEATURES

- Molded Construction
- Magnetically Shielded
- Composite Core
- Low DCR
- Excellent efficiency
- Superior ability to handle transients
- High current carrying capacity
- Terminations: Tin-lead/RoHS

### APPLICATIONS

- Output/Input Chokes
- Low profile power supplies
- Ideal for Battery/Portable power
- DC/DC power supplies
- High current POL

ALL DIMENSIONS: INCHES



| Size    | L max | W             | T max | D             | E           | H ref. | J ref. | K ref. |
|---------|-------|---------------|-------|---------------|-------------|--------|--------|--------|
| HCPI101 | 0.453 | 0.394 ± 0.012 | 0.157 | 0.087 ± 0.012 | 0.098-0.138 | 0.157  | 0.236  | 0.138  |
| HCPI102 | 0.453 | 0.394 ± 0.012 | 0.157 | 0.087 ± 0.012 | 0.098-0.138 | 0.161  | 0.213  | 0.161  |

#### CUSTOM DESIGNS & MODIFICATIONS:

Other electrical configurations and performance characteristics are available in various sizes and package types

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| Vanguard P/N    | Inductance @ 0A ±20% (uH) | DCR (mOHMS) |       | Rated Current (A <sub>DC</sub> ) | Saturation Current (I <sub>sat</sub> ) | Size    |
|-----------------|---------------------------|-------------|-------|----------------------------------|--|---------|
|                 |                           | Typ         | Max   |                                  |  |         |
| HCPI-101-R19M-T | 0.19                      | 0.7         | 0.8   | 40                               | 80                                     | HCPI101 |
| HCPI-101-R22M-T | 0.22                      | 0.875       | 0.962 | 35                               | 68                                     | HCPI101 |
| HCPI-101-R36M-T | 0.36                      | 1.1         | 1.15  | 24                               | 30                                     | HCPI101 |
| HCPI-101-R47M-T | 0.47                      | 1.53        | 1.68  | 30                               | 30                                     | HCPI101 |
| HCPI-101-R56M-T | 0.56                      | 1.3         | 1.43  | 25                               | 30                                     | HCPI101 |
| HCPI-101-1R0M-T | 1                         | 2.7         | 2.9   | 21                               | 30                                     | HCPI101 |
| HCPI-101-1R5M-T | 1.5                       | 3.8         | 4.2   | 16                               | 23                                     | HCPI101 |
| HCPI-101-2R2M-T | 2.2                       | 6.7         | 7.1   | 12                               | 17                                     | HCPI101 |
| HCPI-101-3R3M-T | 3.3                       | 10.8        | 11.8  | 10                               | 12                                     | HCPI101 |
| HCPI-101-100M-T | 10                        | 27          | 31    | 7                                | 8                                      | HCPI101 |
| HCPI-101-150M-T | 15                        | 40          | 45    | 6.25                             | 7                                      | HCPI101 |
| HCPI-101-R16M-T | 0.16                      | 0.42        | 0.462 | 40                               | 70                                     | HCPI101 |
| HCPI-101-R22M-T | 0.22                      | 0.875       | 0.962 | 35                               | 68                                     | HCPI101 |
| HCPI-101-R30M-T | 0.3                       | 1           | 1.2   | 25                               | 50                                     | HCPI101 |
| HCPI-101-R36M-T | 0.36                      | 1.1         | 1.15  | 30                               | 50                                     | HCPI101 |
| HCPI-101-R39M-T | 0.39                      | 1.1         | 1.21  | 30                               | 60                                     | HCPI101 |
| HCPI-101-R68M-T | 0.68                      | 1.68        | 1.9   | 23                               | 32                                     | HCPI101 |
| HCPI-101-R82M-T | 0.82                      | 2.05        | 2.25  | 25                               | 30                                     | HCPI101 |
| HCPI-101-1R0M-T | 1                         | 2.7         | 2.9   | 21                               | 30                                     | HCPI101 |
| HCPI-101-1R5M-T | 1.5                       | 4.2         | 4.5   | 16                               | 27                                     | HCPI101 |
| HCPI-101-4R7M-T | 4.7                       | 13          | 15.2  | 10                               | 16                                     | HCPI101 |
| HCPI-101-150M-T | 15                        | 40          | 45    | 6.25                             | 7                                      | HCPI101 |
| HCPI-101-R19M-T | 0.19                      | 0.87        | 0.95  | 40                               | 90.0                                   | HCPI101 |
| HCPI-101-R36M-T | 0.36                      | 1.3         | 1.4   | 31.5                             | 60.0                                   | HCPI101 |
| HCPI-101-R56M-T | 0.56                      | 1.7         | 1.8   | 27.5                             | 49.0                                   | HCPI101 |
| HCPI-101-1R0M-T | 1                         | 3.7         | 4.1   | 17.5                             | 36.0                                   | HCPI101 |
| HCPI-101-1R5M-T | 1.5                       | 5.3         | 5.8   | 15                               | 27.5                                   | HCPI101 |
| HCPI-101-2R2M-T | 2.2                       | 8.2         | 9     | 12                               | 25.6                                   | HCPI101 |

Inductance measured at 100 kHz, 0.25 V

**CUSTOM DESIGNS & MODIFICATIONS:**

Other electrical configurations and performance characteristics are available in various sizes and package types

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DATA TABLE

| Vanguard P/N    | Inductance @ 0A ±20% (uH) | DCR (mOHMS) |      | Rated Current (A <sub>DC</sub> ) | Saturation Current (I <sub>sat</sub> ) | Size    |
|-----------------|---------------------------|-------------|------|----------------------------------|--|---------|
|                 |                           | Typ         | Max  |                                  |  |         |
| HCPI-101-3R3M-T | 3.3                       | 10.8        | 11.8 | 10                               | 18.6                                   | HCPI101 |
| HCPI-101-4R7M-T | 4.7                       | 15          | 16.5 | 9.5                              | 17.0                                   | HCPI101 |
| HCPI-101-5R6M-T | 5.6                       | 17.6        | 19.3 | 8.5                              | 16.0                                   | HCPI101 |
| HCPI-101-6R8M-T | 6.8                       | 21.2        | 23.3 | 8.0                              | 13.5                                   | HCPI101 |
| HCPI-101-100M-T | 10                        | 33.2        | 36.5 | 6.8                              | 12.0                                   | HCPI101 |
| HCPI-102-R15M-T | 0.15                      | 0.5         | 0.65 | 40                               | 75                                     | HCPI102 |
| HCPI-102-R36M-T | 0.36                      | 1.05        | 1.2  | 30                               | 60                                     | HCPI102 |
| HCPI-102-R41M-T | 0.41                      | 1.1         | 1.3  | 30                               | 60                                     | HCPI102 |
| HCPI-102-R45M-T | 0.45                      | 1.1         | 1.3  | 25                               | 27                                     | HCPI102 |
| HCPI-102-R47M-T | 0.47                      | 1.6         | 1.8  | 26                               | 40                                     | HCPI102 |
| HCPI-102-R56M-T | 0.56                      | 1.6         | 1.8  | 25                               | 40                                     | HCPI102 |
| HCPI-102-R68M-T | 0.68                      | 2.4         | 2.7  | 22                               | 39                                     | HCPI102 |
| HCPI-102-R88M-T | 0.88                      | 2.7         | 3.0  | 20                               | 38                                     | HCPI102 |
| HCPI-102-1R0M-T | 1.0                       | 2.9         | 3.3  | 18                               | 36                                     | HCPI102 |
| HCPI-102-1R5M-T | 1.5                       | 3.8         | 4.2  | 16                               | 33                                     | HCPI102 |
| HCPI-102-2R2M-T | 2.2                       | 6.6         | 7.0  | 12                               | 27                                     | HCPI102 |
| HCPI-102-4R7M-T | 4.7                       | 15.0        | 16.5 | 9.5                              | 17                                     | HCPI102 |
| HCPI-102-100M-T | 10.0                      | 27.5        | 30   | 6                                | 6.0                                    | HCPI102 |

Inductance measured at 100 kHz, 0.25 V

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