# Filter Inductors, High Current, Axial Leaded



## ELECTRICAL SPECIFICATIONS

**Inductance:** Measured at 1.0 V with zero DC current

**Incremental Current:** The typical current at which the inductance will be decreased by 5 % from its initial zero DC value

**Dielectric Rating:** 2500 $V_{RMS}$ between winding and outer circumference to within 0.250" [6.35 mm] of the insulating sleeve edge

**Operating Temperature:** - 55 °C to + 125 °C (no load), - 55 °C to + 85 °C (at full rated current)

**Current Rating:** Maximum continuous operating current (DC or RMS) based on a 40 °C temperature rise

## FEATURES

- Printed circuit mounting (axial leads)
- Protected by polyolefin tubing
- High saturation bobbin used allowing high inductance with low DC resistance
- Pre-tinned leads
- High resistivity core offers very high parallel resistance, resulting in maximum coil performance
- 20 sleeveless models available at reduced cost
- Compliant to RoHS Directive 2002/95/EC

Pb-free
RoHS COMPLIANT

## MECHANICAL SPECIFICATIONS

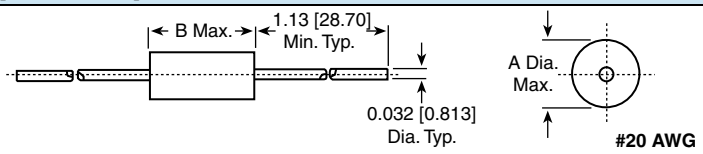
**Wire:** Solid soft copper

**Terminals:** 20 AWG tinned copper leads

**Core Material:** Ferrite

**Coating:** Polyolefin tubing - flame retardant UL type VW-1 per MIL-I-23053/5, class 3 requirements

## DIMENSIONS in inches [millimeters]




| MODEL | A (MAX.) | B (MAX.) |
|---|---|---|
| IHD-1 | 0.270 [6.85] | 0.700 [17.78] |
| IHD-3 | 0.460 [11.68] | 0.900 [22.86] |

## STANDARD ELECTRICAL SPECIFICATIONS

| MODEL | IND. AT 1 kHz (µH) | TOL. (%) | DCR MAX. (Ω) | RATED DC CURRENT MAX. (A) | INCREMENTAL CURRENT APPROX. (A) |
|---|---|---|---|---|---|
| IHD-1 | 1 | ± 15 % | 0.009 | 5.3 | 7.00 |
| IHD-1 | 1.2 | ± 15 % | 0.010 | 5.0 | 6.40 |
| IHD-1 | 1.5 | ± 15 % | 0.011 | 4.8 | 5.70 |
| IHD-1 | 1.8 | ± 15 % | 0.012 | 4.6 | 5.20 |
| IHD-1 | 2.2 | ± 15 % | 0.013 | 4.4 | 4.70 |
| IHD-1 | 2.7 | ± 15 % | 0.014 | 4.2 | 4.30 |
| IHD-1 | 3.3 | ± 15 % | 0.016 | 4.0 | 3.90 |
| IHD-1 | 3.9 | ± 15 % | 0.017 | 3.8 | 3.60 |
| IHD-1 | 4.7 | ± 15 % | 0.022 | 3.4 | 3.30 |
| IHD-1 | 5.6 | ± 15 % | 0.024 | 3.2 | 3.00 |
| IHD-1 | 6.8 | ± 15 % | 0.026 | 3.1 | 2.70 |
| IHD-1 | 8.2 | ± 15 % | 0.028 | 3.0 | 2.50 |
| IHD-1 | 10 | ± 15 % | 0.033 | 2.8 | 2.30 |
| IHD-1 | 12 | ± 15 % | 0.037 | 2.6 | 2.10 |
| IHD-1 | 15 | ± 15 % | 0.040 | 2.5 | 1.90 |
| IHD-1 | 18 | ± 15 % | 0.044 | 2.4 | 1.70 |
| IHD-1 | 22 | ± 15 % | 0.050 | 2.2 | 1.50 |
| IHD-1 | 27 | ± 15 % | 0.070 | 1.9 | 1.40 |
| IHD-1 | 33 | ± 15 % | 0.075 | 1.8 | 1.30 |
| IHD-1 | 39 | ± 15 % | 0.084 | 1.7 | 1.20 |
| IHD-1 | 47 | ± 15 % | 0.104 | 1.6 | 1.10 |
| IHD-1 | 56 | ± 15 % | 0.130 | 1.4 | 0.97 |
| IHD-1 | 68 | ± 15 % | 0.145 | 1.3 | 0.88 |
| IHD-1 | 82 | ± 15 % | 0.152 | 1.3 | 0.80 |
| IHD-1 | 100 | ± 15 % | 0.208 | 1.1 | 0.73 |
| IHD-1 | 120 | ± 15 % | 0.283 | 0.94 | 0.66 |
| IHD-1 | 150 | ± 15 % | 0.330 | 0.87 | 0.60 |
| IHD-1 | 180 | ± 15 % | 0.362 | 0.83 | 0.54 |
| IHD-1 | 220 | ± 15 % | 0.505 | 0.70 | 0.49 |
| IHD-1 | 270 | ± 15 % | 0.557 | 0.67 | 0.45 |
| IHD-1 | 330 | ± 15 % | 0.650 | 0.62 | 0.40 |
| IHD-1 | 390 | ± 15 % | 0.770 | 0.57 | 0.37 |
| IHD-1 | 470 | ± 15 % | 1.030 | 0.49 | 0.34 |
| IHD-1 | 560 | ± 15 % | 1.140 | 0.47 | 0.31 |



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## STANDARD ELECTRICAL SPECIFICATIONS

| MODEL | IND. AT 1 kHz (µH) | TOL. (%) | DCR MAX. (Ω) | RATED DC CURRENT MAX. (A) | INCREMENTAL CURRENT APPROX. (A) |
|---|---|---|---|---|---|
| IHD-1 | 680 | ± 15 % | 1.500 | 0.41 | 0.28 |
| IHD-1 | 820 | ± 15 % | 1.980 | 0.36 | 0.26 |
| IHD-1 | 1000 | ± 15 % | 2.300 | 0.33 | 0.23 |
| IHD-1 | 1200 | ± 15 % | 2.550 | 0.31 | 0.21 |
| IHD-1 | 1500 | ± 15 % | 3.000 | 0.29 | 0.19 |
| IHD-1 | 1800 | ± 15 % | 4.000 | 0.25 | 0.18 |
| IHD-1 | 2200 | ± 15 % | 4.400 | 0.24 | 0.16 |
| IHD-1 | 2700 | ± 15 % | 5.800 | 0.21 | 0.14 |
| IHD-1 | 3300 | ± 15 % | 6.560 | 0.20 | 0.13 |
| IHD-1 | 3900 | ± 15 % | 8.630 | 0.17 | 0.12 |
| IHD-1 | 4700 | ± 15 % | 10.100 | 0.16 | 0.11 |
| IHD-1 | 5600 | ± 15 % | 11.200 | 0.15 | 0.10 |
| IHD-1 | 6800 | ± 15 % | 15.000 | 0.13 | 0.09 |
| IHD-1 | 8200 | ± 15 % | 20.800 | 0.11 | 0.08 |
| IHD-1 | 10 000 | ± 15 % | 23.400 | 0.10 | 0.08 |
| IHD-1 | 12 000 | ± 15 % | 26.000 | 0.10 | 0.07 |
| IHD-1 | 15 000 | ± 15 % | 36.000 | 0.08 | 0.06 |
| IHD-1 | 18 000 | ± 15 % | 40.000 | 0.08 | 0.06 |
| IHD-3 | 3.9 | ± 15 % | 0.007 | 4.0 | 8.20 |
| IHD-3 | 4.7 | ± 15 % | 0.008 | 4.0 | 7.50 |
| IHD-3 | 5.6 | ± 15 % | 0.011 | 4.0 | 6.90 |
| IHD-3 | 6.8 | ± 15 % | 0.011 | 4.0 | 6.30 |
| IHD-3 | 8.2 | ± 15 % | 0.013 | 4.0 | 5.70 |
| IHD-3 | 10 | ± 15 % | 0.016 | 4.0 | 5.20 |
| IHD-3 | 12 | ± 15 % | 0.018 | 4.0 | 4.70 |
| IHD-3 | 15 | ± 15 % | 0.020 | 4.0 | 4.30 |
| IHD-3 | 18 | ± 15 % | 0.022 | 4.0 | 3.90 |
| IHD-3 | 22 | ± 15 % | 0.024 | 4.0 | 3.50 |
| IHD-3 | 27 | ± 15 % | 0.025 | 4.0 | 3.20 |
| IHD-3 | 33 | ± 15 % | 0.028 | 4.0 | 2.90 |
| IHD-3 | 39 | ± 15 % | 0.031 | 4.0 | 2.70 |
| IHD-3 | 47 | ± 15 % | 0.034 | 4.0 | 2.50 |
| IHD-3 | 56 | ± 15 % | 0.043 | 3.2 | 2.30 |
| IHD-3 | 68 | ± 15 % | 0.059 | 2.5 | 2.10 |
| IHD-3 | 82 | ± 15 % | 0.066 | 2.0 | 1.90 |
| IHD-3 | 100 | ± 15 % | 0.084 | 1.6 | 1.70 |
| IHD-3 | 120 | ± 15 % | 0.113 | 1.6 | 1.60 |
| IHD-3 | 150 | ± 15 % | 0.129 | 1.6 | 1.40 |
| IHD-3 | 180 | ± 15 % | 0.150 | 1.6 | 1.30 |
| IHD-3 | 220 | ± 15 % | 0.162 | 1.6 | 1.20 |
| IHD-3 | 270 | ± 15 % | 0.226 | 1.6 | 1.10 |
| IHD-3 | 330 | ± 15 % | 0.257 | 1.6 | 0.95 |
| IHD-3 | 390 | ± 15 % | 0.288 | 1.6 | 0.88 |
| IHD-3 | 470 | ± 15 % | 0.393 | 1.2 | 0.80 |
| IHD-3 | 560 | ± 15 % | 0.504 | 1.0 | 0.74 |
| IHD-3 | 680 | ± 15 % | 0.570 | 1.0 | 0.67 |
| IHD-3 | 820 | ± 15 % | 0.643 | 0.8 | 0.61 |
| IHD-3 | 1000 | ± 15 % | 0.844 | 0.8 | 0.56 |
| IHD-3 | 1200 | ± 15 % | 0.977 | 0.6 | 0.51 |
| IHD-3 | 1500 | ± 15 % | 1.180 | 0.6 | 0.46 |
| IHD-3 | 1800 | ± 15 % | 1.500 | 0.6 | 0.42 |
| IHD-3 | 2200 | ± 15 % | 1.760 | 0.5 | 0.38 |
| IHD-3 | 2700 | ± 15 % | 2.130 | 0.4 | 0.34 |
| IHD-3 | 3300 | ± 15 % | 2.530 | 0.4 | 0.31 |
| IHD-3 | 3900 | ± 15 % | 2.840 | 0.4 | 0.29 |
| IHD-3 | 4700 | ± 15 % | 3.790 | 0.4 | 0.26 |
| IHD-3 | 5600 | ± 15 % | 4.240 | 0.32 | 0.24 |
| IHD-3 | 6800 | ± 15 % | 5.750 | 0.25 | 0.22 |
| IHD-3 | 8200 | ± 15 % | 6.440 | 0.25 | 0.20 |
| IHD-3 | 10 000 | ± 15 % | 7.300 | 0.25 | 0.18 |
| IHD-3 | 12 000 | ± 15 % | 9.340 | 0.20 | 0.17 |
| IHD-3 | 15 000 | ± 15 % | 10.700 | 0.20 | 0.15 |
| IHD-3 | 18 000 | ± 15 % | 14.800 | 0.16 | 0.14 |
| IHD-3 | 22 000 | ± 15 % | 18.000 | 0.13 | 0.12 |
| IHD-3 | 27 000 | ± 15 % | 22.700 | 0.13 | 0.11 |
| IHD-3 | 33 000 | ± 15 % | 25.700 | 0.13 | 0.10 |
| IHD-3 | 39 000 | ± 15 % | 29.700 | 0.10 | 0.09 |
| IHD-3 | 47 000 | ± 15 % | 33.700 | 0.10 | 0.09 |
| IHD-3 | 56 000 | ± 15 % | 38.000 | 0.10 | 0.08 |
| IHD-3 | 68 000 | ± 15 % | 52.800 | 0.08 | 0.07 |
| IHD-3 | 82 000 | ± 15 % | 67.300 | 0.07 | 0.07 |
| IHD-3 | 100 000 | ± 15 % | 76.000 | 0.07 | 0.06 |




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# Filter Inductors, High Current, Axial Leaded

## MARKING

- Vishay Dale
- Model
- Inductance value
- Date code

## ORDERING INFORMATION

| IHD-1 | 3.9 µH | ± 15 % | ER | e2 |
|---|---|---|---|---|
| MODEL | INDUCTANCE VALUE | INDUCTANCE TOLERANCE | PACKAGE CODE | JEDEC LEAD (Pb)-FREE STANDARD |

## GLOBAL PART NUMBER

| I | H | D | 1 | E | R | 3 | R | 9 | L |
|---|---|---|---|---|---|---|---|---|---|
| MODEL | | | | PACKAGE CODE | | INDUCTANCE VALUE | | | INDUCTANCE TOLERANCE |



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