

# Filter Inductors, High Current, Radial Leaded



## FEATURES

- Printed circuit mounting
- Pre-tinned leads
- Protected by polyolefin tubing - flame retardant UL type VW-1 per MIL-I-23053/5, class 3 requirements
- Material categorization: for definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)


**RoHS**  
COMPLIANT

## APPLICATIONS

Noise filtering for switching regulators, power amplifiers, power supplies and SCR and Triac control circuits

**Current Rating:** Maximum continuous operating current (DC or RMS) based on a 50 °C temperature rise

## MECHANICAL SPECIFICATIONS

**Wire:** Solid soft copper

**Terminals:** Extensions of the winding

**Core Material:** Ferrite

**Coating:** Polyolefin tubing

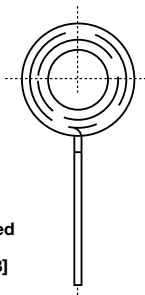
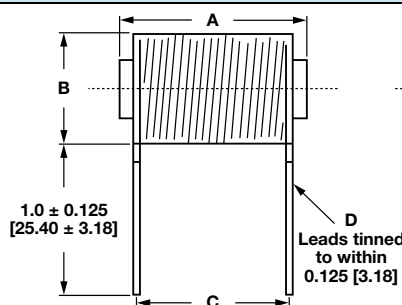
## ELECTRICAL SPECIFICATIONS

**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

**Operating Temperature:** -55 °C to +125 °C (no load), -55 °C to +75 °C (at full rated current)

## DIMENSIONS in inches [millimeters]



| PART NUMBER | IND. (μH) | A (MAX.)      | B (MAX.)      | C ± 0.062 [± 1.57] | D ± 0.005 [± 0.127] |
|-------------|-----------|---------------|---------------|--------------------|---------------------|
| IH03EB5R0K  | 5         | 0.875 [22.23] | 0.600 [15.24] | 0.500 [12.70]      | 0.042 [1.067]       |
| IH03EB100K  | 10        | 1.125 [28.58] | 0.625 [15.88] | 0.687 [17.45]      | 0.042 [1.067]       |
| IH03EB270K  | 27        | 0.875 [22.23] | 0.800 [20.32] | 0.437 [11.10]      | 0.042 [1.067]       |
| IH03EB500K  | 50        | 0.875 [22.23] | 0.800 [20.32] | 0.750 [19.05]      | 0.042 [1.067]       |
| IH03EB101K  | 100       | 1.125 [28.58] | 0.800 [20.32] | 0.937 [23.80]      | 0.042 [1.067]       |
| IH03EB151K  | 150       | 1.375 [34.93] | 0.800 [20.32] | 1.062 [26.97]      | 0.042 [1.067]       |
| IH03EB251K  | 250       | 1.625 [41.28] | 0.800 [20.32] | 1.312 [33.32]      | 0.042 [1.067]       |
| IH05EB5R0K  | 5         | 0.875 [22.23] | 0.625 [15.88] | 0.750 [19.05]      | 0.053 [1.35]        |
| IH05EB100K  | 10        | 1.125 [28.58] | 0.625 [15.88] | 1.000 [25.40]      | 0.053 [1.35]        |
| IH05EB270K  | 27        | 0.875 [22.23] | 0.840 [21.34] | 0.562 [14.27]      | 0.053 [1.35]        |
| IH05EB500K  | 50        | 1.125 [28.58] | 0.840 [21.34] | 0.750 [19.05]      | 0.053 [1.35]        |
| IH05EB680K  | 68        | 1.125 [28.58] | 0.860 [21.84] | 0.875 [22.23]      | 0.053 [1.35]        |
| IH05EB101K  | 100       | 1.375 [34.93] | 0.860 [21.84] | 1.000 [25.40]      | 0.053 [1.35]        |
| IH05EB151K  | 150       | 1.625 [41.28] | 0.860 [21.84] | 1.250 [31.75]      | 0.053 [1.35]        |
| IH10EB5R0K  | 5         | 1.125 [28.58] | 0.635 [16.13] | 0.812 [20.62]      | 0.065 [1.65]        |
| IH10EB100K  | 10        | 1.375 [34.93] | 0.635 [16.13] | 1.218 [30.94]      | 0.065 [1.65]        |
| IH10EB270K  | 27        | 1.125 [28.58] | 0.935 [23.75] | 0.687 [17.45]      | 0.065 [1.65]        |
| IH10EB500K  | 50        | 1.375 [34.93] | 0.935 [23.75] | 0.937 [23.80]      | 0.065 [1.65]        |
| IH10EB680K  | 68        | 1.375 [34.93] | 0.935 [23.75] | 1.125 [28.58]      | 0.065 [1.65]        |
| IH10EB101K  | 100       | 1.625 [41.28] | 0.935 [23.75] | 1.312 [33.32]      | 0.065 [1.65]        |
| IH15EB5R0K  | 5         | 1.375 [34.93] | 0.700 [17.78] | 0.937 [23.80]      | 0.082 [2.08]        |
| IH15EB100K  | 10        | 1.687 [42.85] | 0.700 [17.78] | 1.500 [38.10]      | 0.082 [2.08]        |
| IH15EB270K  | 27        | 1.375 [34.93] | 1.000 [25.40] | 0.937 [23.80]      | 0.082 [2.08]        |
| IH15EB500K  | 50        | 1.625 [41.28] | 1.000 [25.40] | 1.125 [28.58]      | 0.082 [2.08]        |

**STANDARD ELECTRICAL SPECIFICATIONS**

| PART NUMBER | IND. AT 1 kHz<br>( $\mu$ H) | TOL.<br>(%) | DCR MAX.<br>( $\Omega$ ) | RATED DC CURRENT<br>(mA) | INCREMENTAL CURRENT<br>(mA) |
|-------------|-----------------------------|-------------|--------------------------|--------------------------|-----------------------------|
| IH03EB5R0K  | 5                           | $\pm 10$    | 0.015                    | 10 000                   | 25 000                      |
| IH03EB100K  | 10                          | $\pm 10$    | 0.018                    | 9000                     | 19 000                      |
| IH03EB270K  | 27                          | $\pm 10$    | 0.035                    | 7000                     | 12 000                      |
| IH03EB500K  | 50                          | $\pm 10$    | 0.050                    | 5600                     | 8000                        |
| IH03EB101K  | 100                         | $\pm 10$    | 0.065                    | 5200                     | 6000                        |
| IH03EB151K  | 150                         | $\pm 10$    | 0.075                    | 5000                     | 5000                        |
| IH03EB251K  | 250                         | $\pm 10$    | 0.090                    | 5000                     | 4000                        |
| IH05EB5R0K  | 5                           | $\pm 10$    | 0.012                    | 14 000                   | 25 000                      |
| IH05EB100K  | 10                          | $\pm 10$    | 0.015                    | 12 000                   | 19 000                      |
| IH05EB270K  | 27                          | $\pm 10$    | 0.025                    | 9000                     | 13 000                      |
| IH05EB500K  | 50                          | $\pm 10$    | 0.030                    | 8000                     | 10 000                      |
| IH05EB680K  | 68                          | $\pm 10$    | 0.035                    | 7500                     | 9000                        |
| IH05EB101K  | 100                         | $\pm 10$    | 0.050                    | 7500                     | 7000                        |
| IH05EB151K  | 150                         | $\pm 10$    | 0.060                    | 7000                     | 5000                        |
| IH10EB5R0K  | 5                           | $\pm 10$    | 0.010                    | 19 000                   | 25 000                      |
| IH10EB100K  | 10                          | $\pm 10$    | 0.012                    | 16 000                   | 19 000                      |
| IH10EB270K  | 27                          | $\pm 10$    | 0.018                    | 12 500                   | 12 000                      |
| IH10EB500K  | 50                          | $\pm 10$    | 0.025                    | 11 000                   | 10 000                      |
| IH10EB680K  | 68                          | $\pm 10$    | 0.027                    | 10 000                   | 8000                        |
| IH10EB101K  | 100                         | $\pm 10$    | 0.030                    | 10 000                   | 7000                        |
| IH15EB5R0K  | 5                           | $\pm 10$    | 0.008                    | 24 000                   | 25 000                      |
| IH15EB100K  | 10                          | $\pm 10$    | 0.010                    | 20 000                   | 19 000                      |
| IH15EB270K  | 27                          | $\pm 10$    | 0.015                    | 16 000                   | 14 000                      |
| IH15EB500K  | 50                          | $\pm 10$    | 0.020                    | 15 000                   | 10 000                      |

**MARKING**

- Vishay Dale
- Model
- Inductance value
- Date code

**ORDERING INFORMATION**

| IH-5  | 10 $\mu$ H       | $\pm 10$ %           | EB           | e2                             |
|-------|------------------|----------------------|--------------|--------------------------------|
| MODEL | INDUCTANCE VALUE | INDUCTANCE TOLERANCE | PACKAGE CODE | JEDEC® LEAD (Pb)-FREE STANDARD |

**GLOBAL PART NUMBER**

|   |                           |  |                      |
|---|---------------------------|--|----------------------|
| <div>I</div> <div>H</div> <div>0</div> <div>5</div> | <div>E</div> <div>B</div> | <div>1</div> <div>0</div> <div>0</div> | <div>K</div>         |
| MODEL   | PACKAGE CODE              | INDUCTANCE VALUE                       | INDUCTANCE TOLERANCE |



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