

## Filter Inductors, High Current, Axial Leaded



### FEATURES

- Printed circuit mounting (axial leads)
- Pre-tinned leads
- Low cost construction
- Protected by polyolefin tubing - flame retardant UL type VW-1 per MIL-I-23053/8, class 3 requirements
- Material categorization: for definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)


**RoHS**  
COMPLIANT

### ELECTRICAL SPECIFICATIONS

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

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

**Dielectric Rating:** 2500 V<sub>RMS</sub>, 60 Hz, applied for one minute between winding and outer circumference to within 0.250" [6.35 mm] of the insulation sleeve edge

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

### APPLICATIONS

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

### MECHANICAL SPECIFICATIONS

**Winding:** layered solenoid type

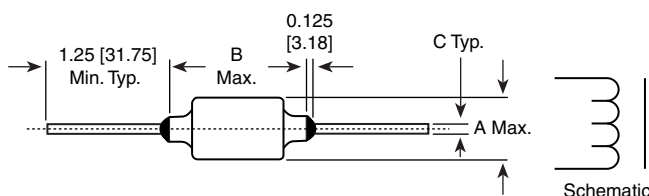
**Wire:** solid soft copper

**Terminals:** tinned copper leads

**Encapsulant:** polyolefin tubing

**Core Material:** ferrite

### DIMENSIONS in inches [millimeters]



| PART NUMBER | A (MAX.)      | B (MAX.)      | C ± 0.002 [0.050] |
|-------------|---------------|---------------|-------------------|
| IHA101EB    | 0.475 [12.07] | 0.800 [20.32] | 0.032 [0.813]     |
| IHA102EB    | 0.475 [12.07] | 0.800 [20.32] | 0.032 [0.813]     |
| IHA103EB    | 0.475 [12.07] | 1.050 [26.67] | 0.032 [0.813]     |
| IHA104EB    | 0.550 [13.97] | 1.050 [26.67] | 0.032 [0.813]     |
| IHA105EB    | 0.550 [13.97] | 1.175 [29.85] | 0.032 [0.813]     |
| IHA201EB    | 0.500 [12.70] | 0.800 [20.32] | 0.032 [0.813]     |
| IHA202EB    | 0.500 [12.70] | 0.800 [20.32] | 0.032 [0.813]     |
| IHA203EB    | 0.500 [12.70] | 0.920 [23.37] | 0.032 [0.813]     |
| IHA204EB    | 0.600 [15.24] | 0.920 [23.37] | 0.032 [0.813]     |
| IHA205EB    | 0.750 [19.05] | 1.050 [26.67] | 0.032 [0.813]     |
| IHA301EB    | 0.475 [12.07] | 0.800 [20.32] | 0.032 [0.813]     |
| IHA302EB    | 0.475 [12.07] | 0.920 [23.37] | 0.032 [0.813]     |
| IHA303EB    | 0.550 [13.97] | 0.800 [20.32] | 0.032 [0.813]     |
| IHA304EB    | 0.550 [13.97] | 0.920 [23.37] | 0.032 [0.813]     |
| IHA305EB    | 0.550 [13.97] | 1.175 [29.85] | 0.032 [0.813]     |
| IHA501EB    | 0.475 [12.07] | 1.050 [26.67] | 0.040 [1.02]      |
| IHA502EB    | 0.475 [12.07] | 1.050 [26.67] | 0.040 [1.02]      |
| IHA503EB    | 0.700 [17.78] | 1.050 [26.67] | 0.040 [1.02]      |
| IHA504EB    | 0.700 [17.78] | 1.050 [26.67] | 0.040 [1.02]      |
| IHA505EB    | 0.700 [17.78] | 1.300 [33.02] | 0.040 [1.02]      |

**STANDARD ELECTRICAL SPECIFICATIONS**

| PART NUMBER | IND. AT 1 kHz ( $\mu$ H) | TOL. (%)   | DCR MAX. ( $\Omega$ ) | RATED DC CURRENT (mA) |
|-------------|--------------------------|------------|-----------------------|-----------------------|
| IHA101EB    | 50                       | $\pm 10\%$ | 0.120                 | 2500                  |
| IHA102EB    | 100                      | $\pm 10\%$ | 0.160                 | 2100                  |
| IHA103EB    | 250                      | $\pm 10\%$ | 0.280                 | 1800                  |
| IHA104EB    | 500                      | $\pm 10\%$ | 0.420                 | 1600                  |
| IHA105EB    | 1000                     | $\pm 10\%$ | 0.600                 | 1400                  |
| IHA201EB    | 27                       | $\pm 10\%$ | 0.060                 | 3700                  |
| IHA202EB    | 50                       | $\pm 10\%$ | 0.085                 | 3100                  |
| IHA203EB    | 100                      | $\pm 10\%$ | 0.120                 | 2700                  |
| IHA204EB    | 250                      | $\pm 10\%$ | 0.200                 | 2400                  |
| IHA205EB    | 500                      | $\pm 10\%$ | 0.320                 | 2300                  |
| IHA301EB    | 5                        | $\pm 10\%$ | 0.015                 | 6800                  |
| IHA302EB    | 10                       | $\pm 10\%$ | 0.021                 | 6100                  |
| IHA303EB    | 27                       | $\pm 10\%$ | 0.040                 | 4800                  |
| IHA304EB    | 50                       | $\pm 10\%$ | 0.050                 | 4300                  |
| IHA305EB    | 100                      | $\pm 10\%$ | 0.070                 | 4200                  |
| IHA501EB    | 5                        | $\pm 10\%$ | 0.010                 | 9300                  |
| IHA502EB    | 10                       | $\pm 10\%$ | 0.015                 | 8300                  |
| IHA503EB    | 27                       | $\pm 10\%$ | 0.030                 | 6500                  |
| IHA504EB    | 50                       | $\pm 10\%$ | 0.040                 | 6100                  |
| IHA505EB    | 100                      | $\pm 10\%$ | 0.060                 | 5900                  |

**MARKING**

- Vishay Dale
- Model
- Date code

**ORDERING INFORMATION**

|               |                             |                              |              |                               |
|---------------|-----------------------------|------------------------------|--------------|-------------------------------|
| <b>IHA101</b> | <b>50 <math>\mu</math>H</b> | <b><math>\pm 10\%</math></b> | <b>EB</b>    | <b>e2</b>                     |
| MODEL         | INDUCTANCE VALUE            | INDUCTANCE TOLERANCE         | PACKAGE CODE | JEDEC LEAD (Pb)-FREE STANDARD |

**GLOBAL PART NUMBER**

I H A 1 0 1

PRODUCT FAMILY

E B

PACKAGE CODE

**EB** = bulk packaging /  
lead (Pb)-free

**BA** = bulk packaging /  
lead (Pb)-bearing (non-RoHS)



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