



## Dual Inductor Series Designed for Class D Amplifiers



### KEY BENEFITS

- Optimal design enables high-quality audio with low distortion
- Low coupling for minimal cross-talk between inductors
- Shielded construction
- High temperature
- Minimizes board space requirements

### APPLICATIONS

- Class D amplifier circuits in automotive designs
- Circuits where board space is a premium and multiple inductors are required

### RESOURCES

- Datasheet: IHLD-3232HB-5A - [www.vishay.com/doc?34383](http://www.vishay.com/doc?34383)  
IHLD-4040KB-5A - [www.vishay.com/doc?34381](http://www.vishay.com/doc?34381)
- Material categorization: For definitions please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)
- For technical questions contact [magnetics@vishay.com](mailto:magnetics@vishay.com)



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COMPLIANT



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**SOLUTIONS**

# SMD POWER INDUCTORS

## IHLD Series

### IHLD-3232HB-5A



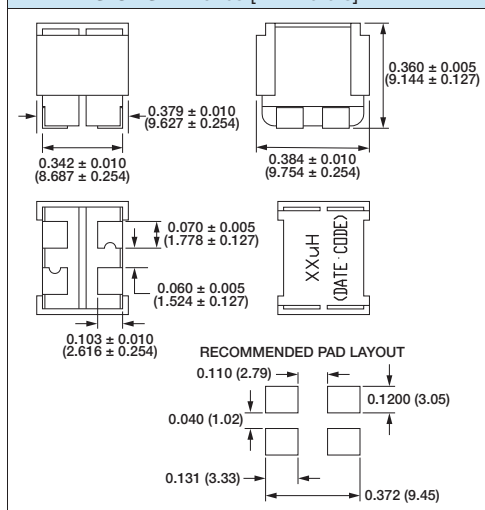
Several foreign patents, and other patents pending.

STANDARD ELECTRICAL SPECIFICATIONS					
L <sub>0</sub> INDUCTANCE ± 20 % AT 100 kHz, 0.25 V, 0 A (μH)	DCR TYP. 25 °C (mΩ)	DCR MAX. 25 °C (mΩ)	HEAT RATING CURRENT DC TYP. (A) <sup>(3)</sup>	SATURATION CURRENT DC TYP. (A) <sup>(4)</sup>	SRF TYP. (MHz)
5	27.3	29.2	6.0	8.5	18.0
10	50.0	53.50	5.0	5.2	13.0
15	62.0	66.34	4.2	3.5	10.0
22	103.0	110.21	3.3	2.9	9.0
33	149.0	159.43	2.4	2.9	6.1

**Notes**

- (1) All test data is referenced to 25 °C ambient
- (2) Operating temperature range -55 °C to +155 °C
- (3) DC current (A) that will cause an approximate ΔT of 40 °C
- (4) DC current (A) that will cause L<sub>0</sub> to drop approximately 20 %
- (5) The part temperature (ambient + temp. rise) should not exceed 155 °C under worst case operating conditions. Circuit design, component placement, PWB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.

**DIMENSIONS** in inches [millimeters]



**Model IHLD-3232HB-5A**

Inductance value: 5 μH - 33 μH  
 Inductance tolerance: ± 20 %  
 Package code: ER  
 JEDEC® Lead (Pb)-Free Standard e3

### IHLD-4032KB-5A



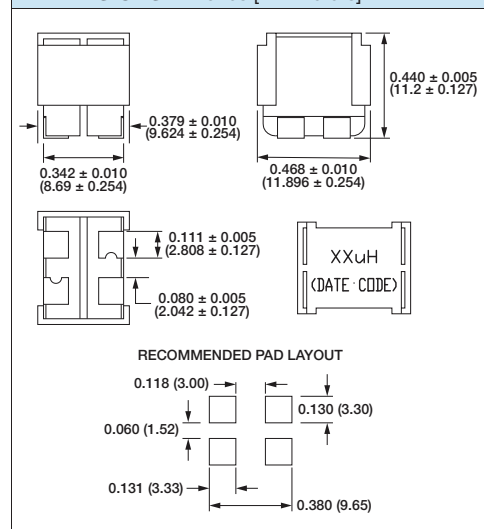
Several foreign patents, and other patents pending.

STANDARD ELECTRICAL SPECIFICATIONS					
L <sub>0</sub> INDUCTANCE ± 20 % AT 100 kHz, 0.25 V, 0 A (μH)	DCR TYP. 25 °C (mΩ)	DCR MAX. 25 °C (mΩ)	HEAT RATING CURRENT DC TYP. (A) <sup>(3)</sup>	SATURATION CURRENT DC TYP. (A) <sup>(4)</sup>	SRF TYP. (MHz)
10	30.5	32.6	5.6	7.4	10.2
15	43.5	45.5	4.6	5.5	9.5
22	67.8	72.5	4.1	4.1	7
33	100	107.0	3.8	3.7	6

**Notes**

- (1) All test data is referenced to 25 °C ambient
- (2) Operating temperature range -55 °C to +155 °C
- (3) DC current (A) that will cause an approximate ΔT of 40 °C
- (4) DC current (A) that will cause L<sub>0</sub> to drop approximately 20 %
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**DIMENSIONS** in inches [millimeters]



**Model IHLD-4032KB-5A**

Inductance value: 10 μH - 33 μH  
 Inductance tolerance: ± 20 %  
 Package code: ER  
 JEDEC® Lead (Pb)-Free Standard e3