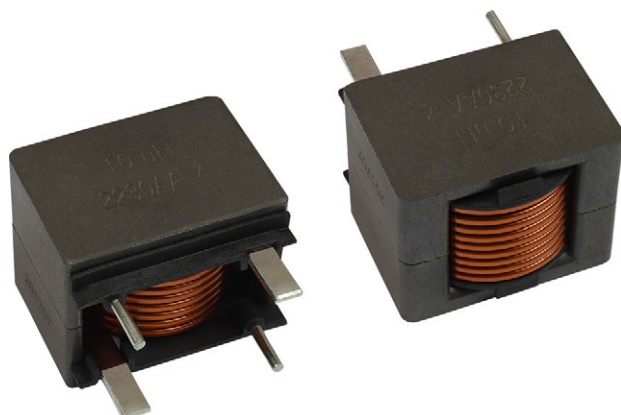


## Commercial Power Inductor, High Voltage, Through-Hole, High Temperature 180 °C



### FEATURES

- Isolation voltage rating 1.5 kV<sub>DC</sub>
- Support pins for added mechanical stability
- Soft saturation maximizes ripple control at high currents
- High temperature continuous operation up to 180 °C
- Material categorization: for definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)



**RoHS**  
COMPLIANT  
HALOGEN  
**FREE**  
**GREEN**  
(5-2008)

### APPLICATIONS

- Battery charging circuits
- High voltage inverters and systems
- Power factor correction (PFC)
- High voltage DC battery filter

### LINKS TO ADDITIONAL RESOURCES



### MATERIAL SPECIFICATIONS

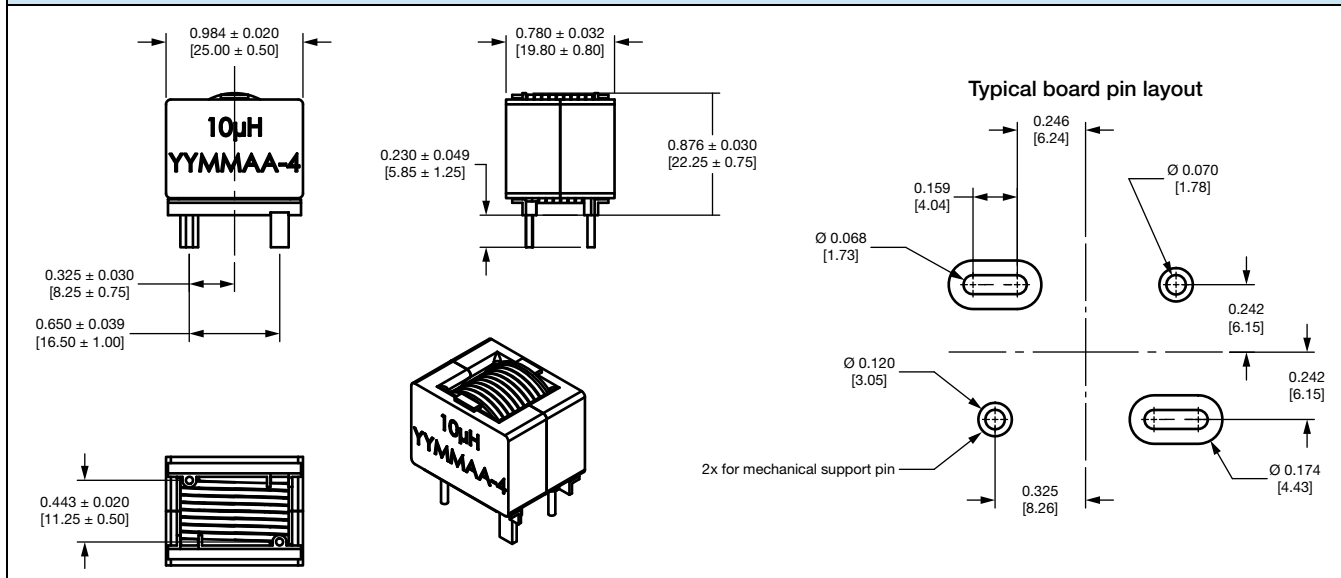
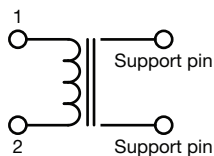
- Core: powdered iron alloy
- Wire: 200 °C polyamide insulated copper
- Coilform insulator material: black polyamide plastic
- Plating: terminals solder dipped in tin alloy (Sn99.3Cu0.7), mounting pins electroplated with 100 % matte tin
- Weight: 47.1 g

### STANDARD ELECTRICAL SPECIFICATIONS

PART NUMBER	L <sub>0</sub> INDUCTANCE ± 20 % AT 0.25 V, 100 kHz, 0 A (μH)	DCR AT 25 °C (mΩ)	DCR AT 25 °C (mΩ)	HEAT RATING CURRENT DC (A) <sup>(1)</sup>	SATURATION CURRENT DC (A) <sup>(2)</sup>		SRF TYP. (MHz)
		TYP.	MAX.	TYP.	20 % DROP	30 % DROP	
IHDV1008BBEV100M30	10	2.7	2.9	30	53	68	22

#### Notes

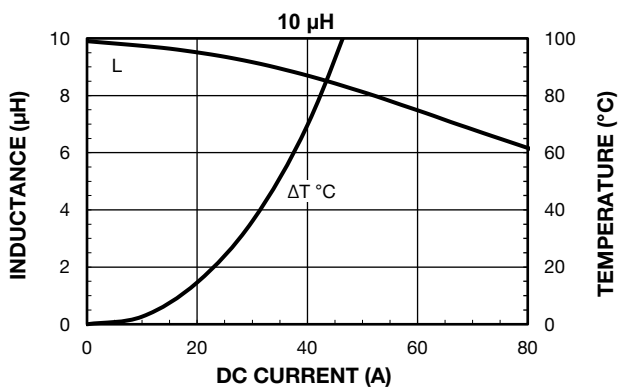
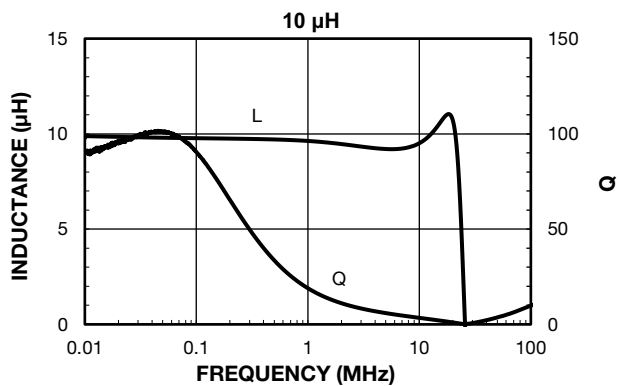
- All test data is referenced to 25 °C ambient
  - Operating temperature range -40 °C to +180 °C
  - The part temperature (ambient + temperature rise) should not exceed the maximum rating under worst case operating conditions. Circuit design, component placement, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application
  - Isolation voltage rating (coil to core or coil to mounting pin) = 1.5 kV<sub>DC</sub> max.
- <sup>(1)</sup> DC current (A) that will cause an approximate ΔT of 40 °C
- <sup>(2)</sup> DC current (A) that will cause L<sub>0</sub> to drop approximately 20 % and 30 %, respectively

**DIMENSIONS** in inches [millimeters]

**SCHEMATIC**

**DESCRIPTION**

<b>IHDV-1008BB-30</b>	<b>10 <math>\mu</math>H</b>	<b><math>\pm 20\%</math></b>	<b>ER</b>	<b>e2</b>
MODEL	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	PACKAGE CODE	JEDEC® LEAD (Pb)-FREE STANDARD

**GLOBAL PART NUMBER**

<b>I H D V</b>	<b>1 0 0 8 B B</b>	<b>E</b>	<b>V</b>	<b>1 0 0</b>	<b>M</b>	<b>3 0</b>
PRODUCT FAMILY	SIZE	PACKAGE CODE	MOUNTING STYLE	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	SERIES
		<b>E</b> = tray pack (90 pcs/box)	<b>V</b> = vertical THT	<b>100</b> = 10 $\mu$ H	<b>M</b> = $\pm 20\%$	

**PERFORMANCE GRAPHS**

**PERFORMANCE GRAPHS: INDUCTANCE AND Q VS. FREQUENCY**




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