

## Commercial Power Inductor, High Isolation Voltage 1.5 kV, Through-Hole, High Temperature 180 °C



### FEATURES

- Size: 25.0 mm x 19.8 mm x 23.0 mm
- High isolation voltage 1.5 kV<sub>DC</sub>
- Support pins for added mechanical stability
- High impedance for differential filtering applications (2.8 kΩ at 22 MHz peak frequency)
- Soft saturation provides stable inductance with transient current handling 5 x the heat rating current
- 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)

### LINKS TO ADDITIONAL RESOURCES


[Product Page](#)

[Calculators](#)

### MATERIAL SPECIFICATIONS

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

### APPLICATIONS

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

### STANDARD ELECTRICAL SPECIFICATIONS

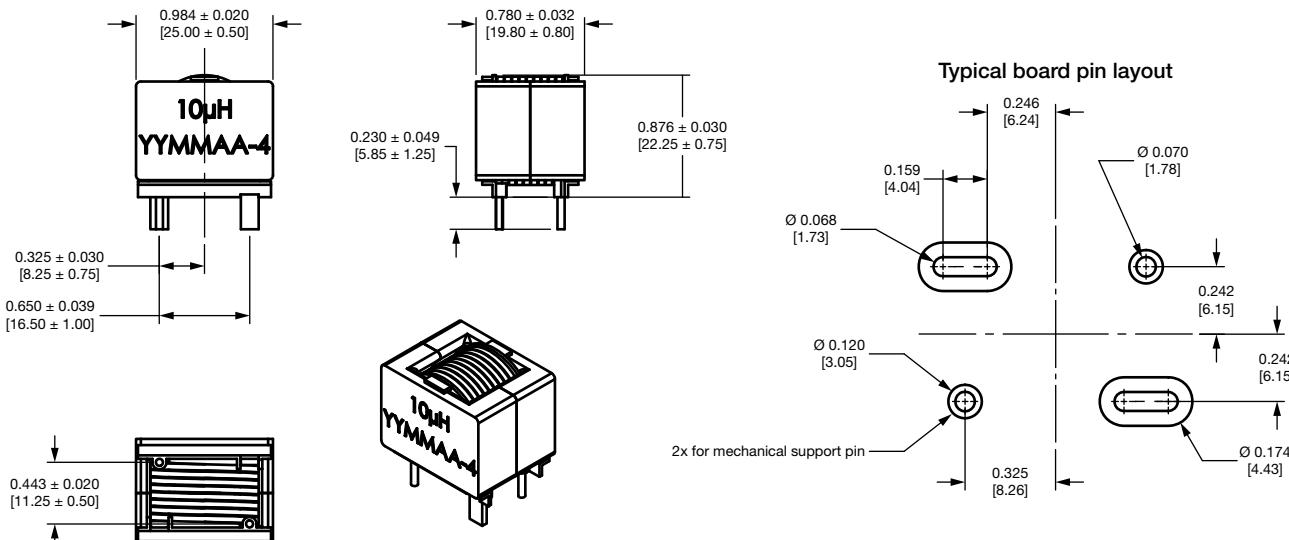
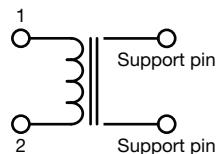
PART NUMBER	L <sub>0</sub> INDUCTANCE ± 20 % AT 0.25 V, 100 kHz, 0 A (μH)	DCR	DCR	HEAT RATING CURRENT DC (A) <sup>(1)</sup>	SATURATION CURRENT DC (A) <sup>(2)</sup>		SRF TYP. (MHz)
		AT 25 °C (mΩ)	AT 25 °C (mΩ)		20 % DROP	30 % DROP	
IHDV1008BBEV100M30	10	2.7	2.9	30	53	68	22

#### 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 (coil to core or coil to mounting pin) = 1.5 kV<sub>DC</sub>, 5 mA, 5 s

<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**

IHDV-1008BB-30	10 $\mu$ H	$\pm 20\%$	EV	e2
MODEL	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	PACKAGE CODE	JEDEC® LEAD (Pb)-FREE STANDARD

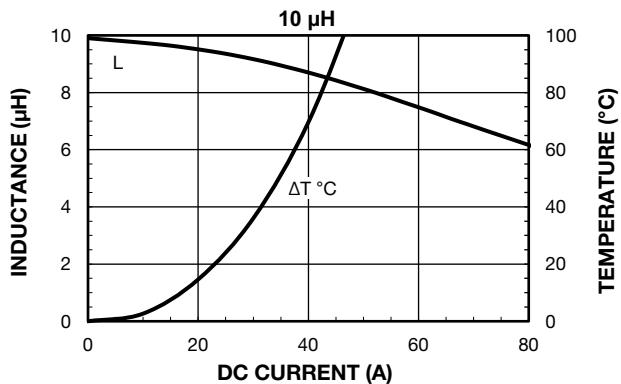
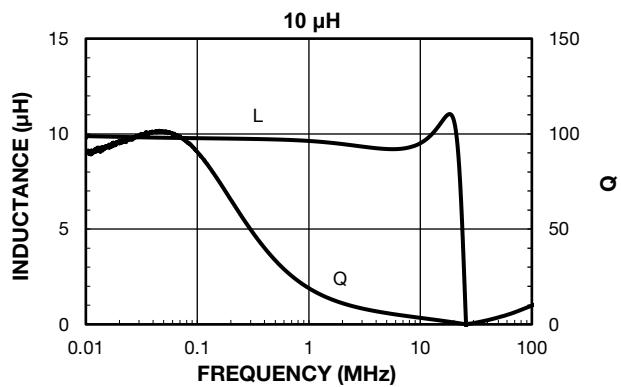
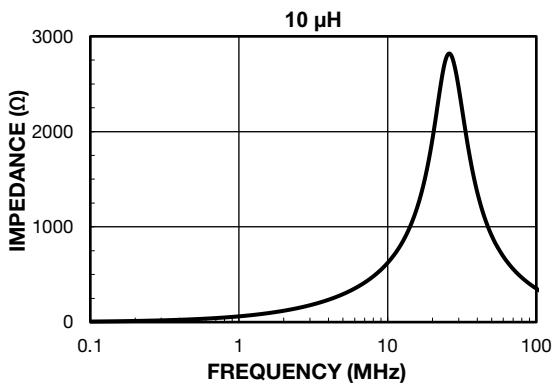
**GLOBAL PART NUMBER**

I	H	D	V	1	0	0	8	B	B	E	V	1	0	0	M	3	0
PRODUCT FAMILY				SIZE				PACKAGE CODE		MOUNTING STYLE		INDUCTANCE VALUE		INDUCTANCE TOLERANCE		SERIES	

E = tray pack (90 pcs/box)      V = vertical THT      100 = 10  $\mu$ H      M =  $\pm 20\%$

**Note**

- For additional packaging details see "[Packaging Methods](#)"

**PERFORMANCE GRAPHS**

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

**PERFORMANCE GRAPHS: IMPEDANCE**


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