

RoHS

COMPLIANT

HALOGEN FREE

**GREEN** 

(5-2008)



www.vishay.com

Vishay Custom Magnetics

# **Surface-Mount, Common Mode Choke**



### **LINKS TO ADDITIONAL RESOURCES**



#### **FEATURES**

- Low SMD profile design compatible with automated pick and place assembly
- High heat rating current to 31 A and saturation current to 35 A
- High temperature operation, up to 125 °C
- Dielectric withstand voltage between coils to 1500 V<sub>DC</sub>
- Custom options for inductance, impedance, DCR and current rating are available
- Through-hole mounting configurations available
- Material categorization: for definitions of compliance please see <a href="https://www.vishay.com/doc?99912"><u>www.vishay.com/doc?99912</u></a>

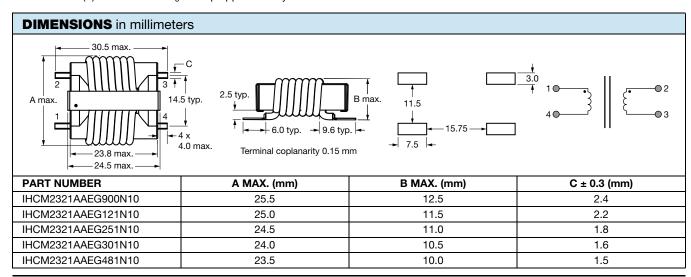
#### **APPLICATIONS**

- High current and high temperature applications
- DC/DC converters
- EMI Filters
- Motor noise suppression

STANDARD ELECTRICAL SPECIFICATIONS								
PART NUMBER	L <sub>O</sub> INDUCTANCE ± 30 % AT 100 kHz, 0.25 V, 0 A (μH)	COMMON MODE IMPEDANCE AT 10 MHz, TYP. (Ω)	DC RESISTANCE MAX. (Ω)	HEAT RATING CURRENT TYPICAL (EST.) (A <sub>DC</sub> ) (1)	SATURATION CURRENT AT 25 °C TYP. (A <sub>DC</sub> ) (2)	LEAKAGE MAX. (μΗ)		
IHCM2321AAEG900N10	90	380	0.0015	31	35	2.5		
IHCM2321AAEG121N10	120	480	0.0018	25	28	3.5		
IHCM2321AAEG251N10	250	850	0.0050	14	19	7.5		
IHCM2321AAEG301N10	300	900	0.0070	10	17	8.0		
IHCM2321AAEG481N10	480	1200	0.0125	8	13	14.0		

### Notes

- All test data is referenced to 25°C ambient
- Storage temperature range -55 °C to +125 °C
- Operating temperature range -40 °C to +125 °C
- The part temperature (ambient + temp. rise) should not exceed 125 °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
- All data presented are preliminary and subject to change
- (1) DC current (A) that will cause an approximate ΔT of 40 °C
- (2) DC current (A) that will cause L<sub>0</sub> to drop approximately 30 %



Revision: 10-Sep-2025 1 Document Number: 34560

## End of Life September 2025 - Alternative Device: ICMS2321-10



# IHCM-2321AA-10

www.vishay.com

Vishay Custom Magnetics

DESCRIPTION				
IHCM-2321AA-10	90 μΗ	± 30 %	EG	e3
MODEL	IMPEDANCE VALUE	INDUCTANCE TOLERANCE	PACKAGE CODE	JEDEC® LEAD (Pb)-FREE STANDARD

LOBAL PART NUI	/BER											
I H C M	2 3 2	2 1	Α	A	E	G	9	0	0	<b>N</b>	1	0
PRODUCT FAMILY		SIZE				KAGE DDE		JCTAI /ALUE		INDUCTANCE TOLERANCE	SEF	RIES
					EG =	tray	900	90	μΗ	$N = \pm 30 \%$		

### **PACKAGE CODE OPTIONS**

**EG** = tray packaging (160 pcs/box)

**EN** = tape and reel packaging (80 pcs/reel)

#### Note

• For additional packaging details see "Packaging Methods"





www.vishay.com

# Vishay Custom Magnetics

#### PERFORMANCE GRAPHS: IMPEDANCE VS. FREQUENCY CHARACTERISTICS IHCM2321AAEG900N10 IHCM2321AAEG121N10 2500 1600 1400 2000 1200 Impedance (᠒) Impedance ( $\Omega$ ) Differential Mode Differential Mode 1000 1500 800 1000 600 Common Mode Common Mode 400 500 200 0 0 0.1 100 0.1 100 10 FREQUENCY (MHz) FREQUENCY (MHz) IHCM2321AAEG251N10 IHCM2321AAEG301N10 6000 7000 6000 5000 Differential Mode (C) 5000 4000 3000 2000 (C) 4000 3000 2000 Differential Mode Common Mode Common Mode 1000 1000 0 0 0.1 100 10 0.1 100 FREQUENCY (MHz) FREQUENCY (MHz) IHCM2321AAEG481N10 12 000 10 000 Differential Mode Impedance (0) 8000 6000 4000 Common Mode 2000 0 0.1 100 FREQUENCY (MHz)



## **Legal Disclaimer Notice**

Vishay

### **Disclaimer**

ALL PRODUCT, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE TO IMPROVE RELIABILITY, FUNCTION OR DESIGN OR OTHERWISE.

Vishay Intertechnology, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "Vishay"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained in any datasheet or in any other disclosure relating to any product.

Vishay makes no warranty, representation or guarantee regarding the suitability of the products for any particular purpose or the continuing production of any product. To the maximum extent permitted by applicable law, Vishay disclaims (i) any and all liability arising out of the application or use of any product, (ii) any and all liability, including without limitation special, consequential or incidental damages, and (iii) any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.

Statements regarding the suitability of products for certain types of applications are based on Vishay's knowledge of typical requirements that are often placed on Vishay products in generic applications. Such statements are not binding statements about the suitability of products for a particular application. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Parameters provided in datasheets and / or specifications may vary in different applications and performance may vary over time. All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts. Product specifications do not expand or otherwise modify Vishay's terms and conditions of purchase, including but not limited to the warranty expressed therein.

Hyperlinks included in this datasheet may direct users to third-party websites. These links are provided as a convenience and for informational purposes only. Inclusion of these hyperlinks does not constitute an endorsement or an approval by Vishay of any of the products, services or opinions of the corporation, organization or individual associated with the third-party website. Vishay disclaims any and all liability and bears no responsibility for the accuracy, legality or content of the third-party website or for that of subsequent links.

Vishay products are not designed for use in life-saving or life-sustaining applications or any application in which the failure of the Vishay product could result in personal injury or death unless specifically qualified in writing by Vishay. Customers using or selling Vishay products not expressly indicated for use in such applications do so at their own risk. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Vishay. Product names and markings noted herein may be trademarks of their respective owners.