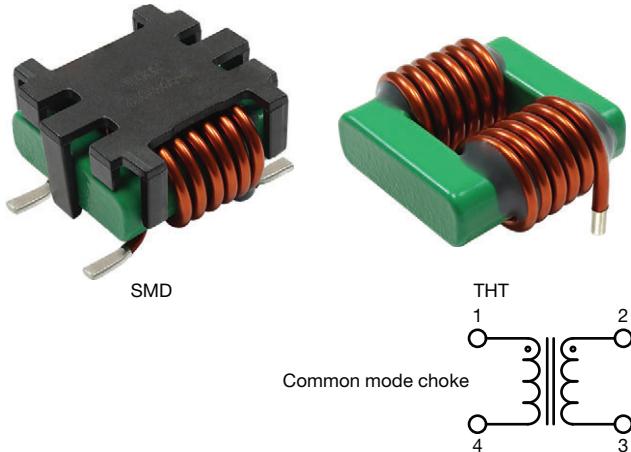


Common Mode Choke, High Current, High Voltage 1.5 kV, Temperature 150 °C



LINKS TO ADDITIONAL RESOURCES



MATERIAL SPECIFICATIONS

- Core: ferrite
- Wire: enameled copper
- Pick and place clip: glass fiber enhanced plastic polymer
- Terminal plating: solder dipped tin alloy (Sn99Ag0.3Cu0.7)

FEATURES

- High current common mode choke with SMD and THT terminal options
- Compatible with automated pick and place assembly (SMD design only. THT termination does not include pick and place clip)
- High temperature operation up to 150 °C
- Inductance range from 70 µH to 480 µH (current rating up to 20 A)
- Designed to filter common mode noise from 500 kHz to 10 MHz (up to 5 kΩ impedance)
- Dielectric withstand voltage rated to 1500 V_{DC} between coils
- Customizable for inductance, impedance, DCR and current rating
- AEC-Q200 qualified
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912




RoHS
COMPLIANT
HALOGEN
FREE
GREEN
(S-2008)

APPLICATIONS

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

STANDARD ELECTRICAL SPECIFICATIONS

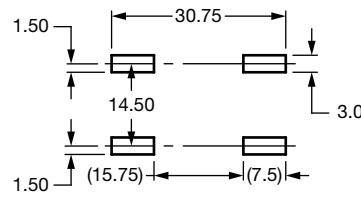
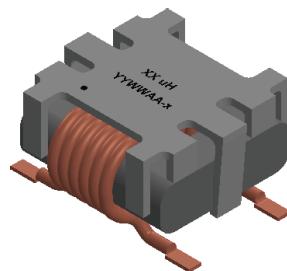
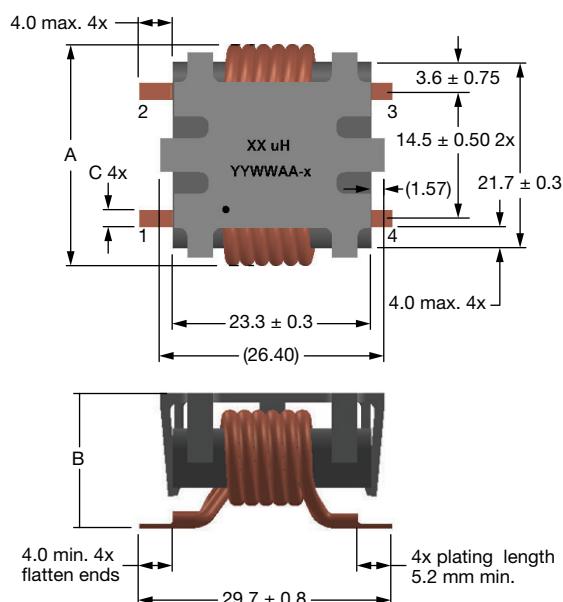
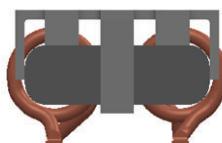
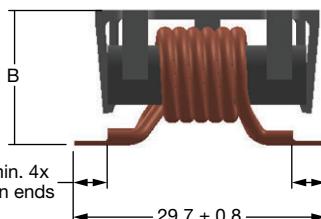
PART NUMBER	L ₀ INDUCTANCE AT 0 A, REF. (µH)	DCR TYP. 25 °C (mΩ)	DCR MAX. 25 °C (mΩ)	COMMON MODE IMPEDANCE ± 30 % TYP. AT 1 MHz (Ω)	COMMON MODE IMPEDANCE ± 30 % TYP. AT 10 MHz (Ω)	COMMON MODE IMPEDANCE ± 30 % TYP. AT 100 MHz (Ω)	HEAT RATING CURRENT DC TYP. (A) ⁽¹⁾		LEAKAGE MAX. (µH)	MOUNT
							40 °C RISE	100 °C RISE		
ICMS2321AGEG700N1A	70	1.3	1.5	540	345	220	20	30	1.7	SMD
ICMS2321ABEH700N1A	70	1.2	1.3	540	345	220	20	30	1.7	THT
ICMS2321AGEG101N1A	100	1.9	2.1	780	600	240	18	26	2.4	SMD
ICMS2321ABEH101N1A	100	1.6	1.8	780	600	240	18	26	2.4	THT
ICMS2321AGEG281N1A	280	6.6	7.4	2240	1230	380	10	15	6.7	SMD
ICMS2321ABEH281N1A	280	6.2	7.0	2240	1230	380	10	15	6.7	THT
ICMS2321AGEG481N1A	480	13.4	15.0	3790	1920	410	7	10	11.5	SMD
ICMS2321ABEH481N1A	480	12.4	13.9	3790	1920	410	7	10	11.5	THT

Notes

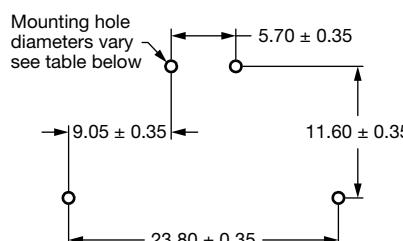
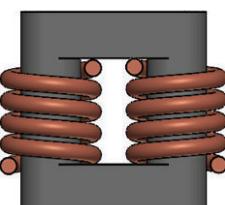
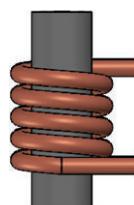
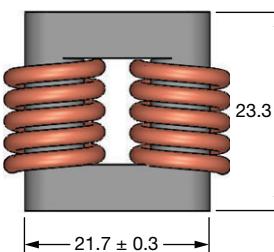
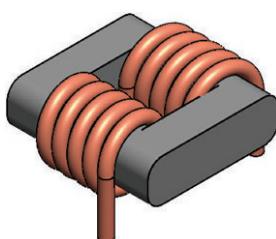
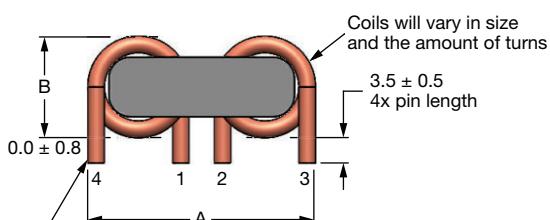
- All test data is referenced to 25 °C ambient
- Inductance and impedance test condition: 100 kHz, 0.25 V
- Operating temperature range -40 °C to +150 °C
- Dielectric withstand voltage (DWV) rating:
 - Core to coil: 500 V_{DC}, 1 mA max., 2 s
 - Coil to coil: 1500 V_{DC}, 1 mA max., 2 s

⁽¹⁾ DC current (A) that will cause an approximate ΔT of 40 °C and 100 °C, respectively

DIMENSIONS in millimeters

SURFACE-MOUNT STYLE⁽¹⁾

Typical Pad Layout


PART NUMBER	A MAX.	B MAX.	C ± 0.2 mm	WEIGHT (g)
ICMS2321AGEG700N1A	27.7	17.5	2.2	17.3
ICMS2321AGEG101N1A	27.3	17.2	2.2	26.1
ICMS2321AGEG281N1A	26.1	15.65	1.5	19.6
ICMS2321AGEG481N1A	25.8	15.5	1.5	17.1

THROUGH-HOLE MOUNT STYLE

Typical Board Pin Layout


Tinned surface should not be higher or lower than 0.8 mm from the bottom of the coil.

PART NUMBER	A MAX.	B MAX.	MOUNTING HOLE DIAMETER	WEIGHT (g)
ICMS2321ABEH700N1A	27.7	12.6	2.12	16.0
ICMS2321ABEH101N1A	27.3	12.3	1.93	24.8
ICMS2321ABEH281N1A	26.1	11.25	1.32	18.3
ICMS2321ABEH481N1A	25.8	10.75	1.113	15.8

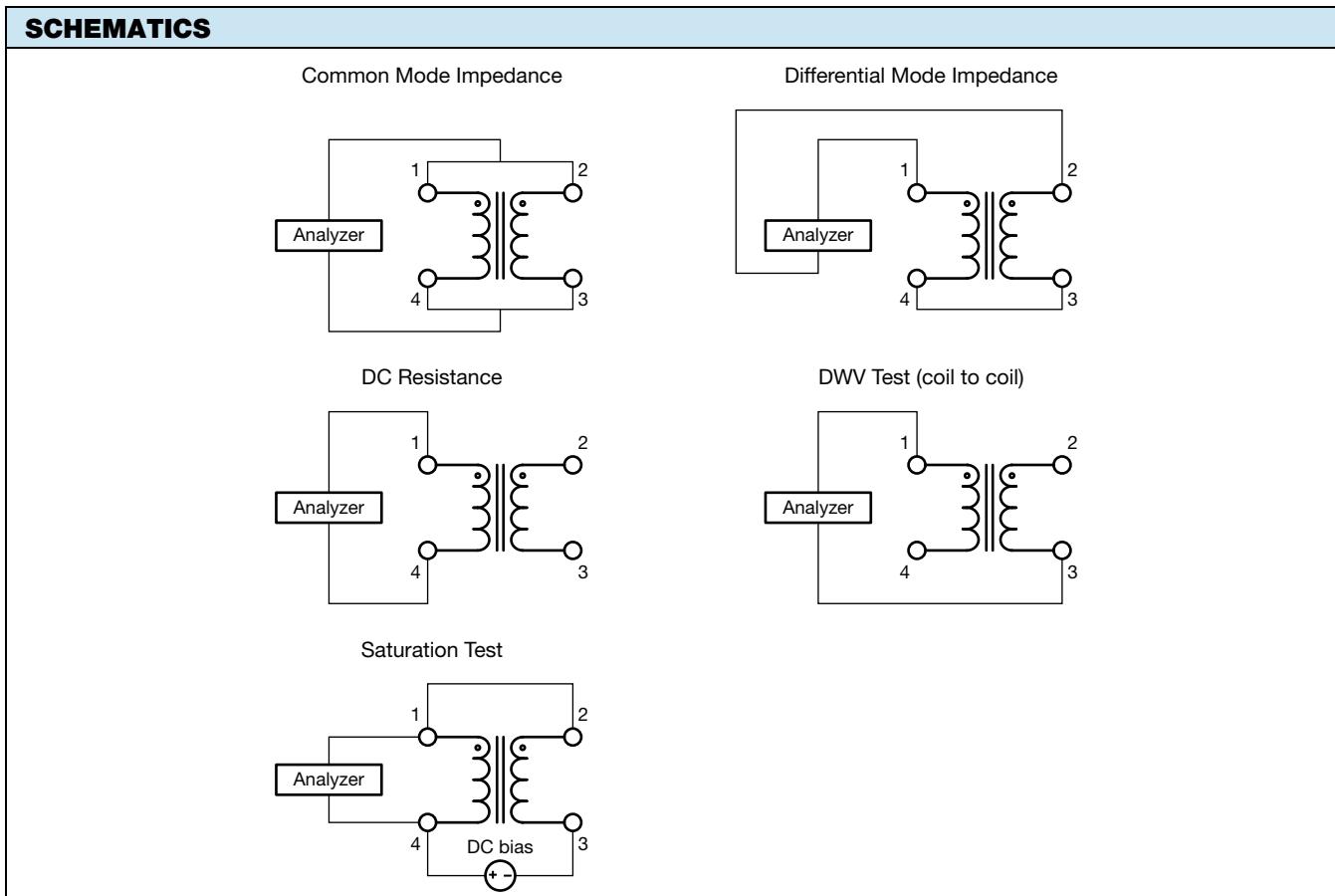
Note

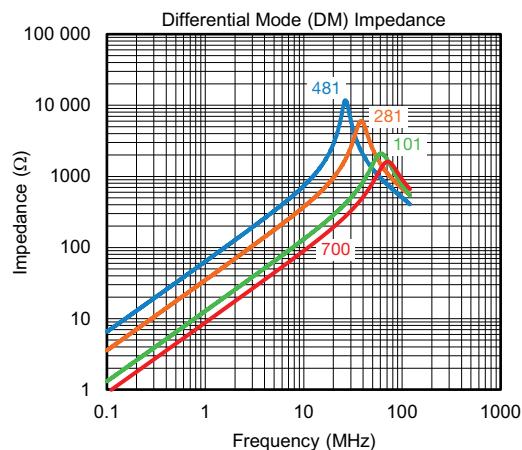
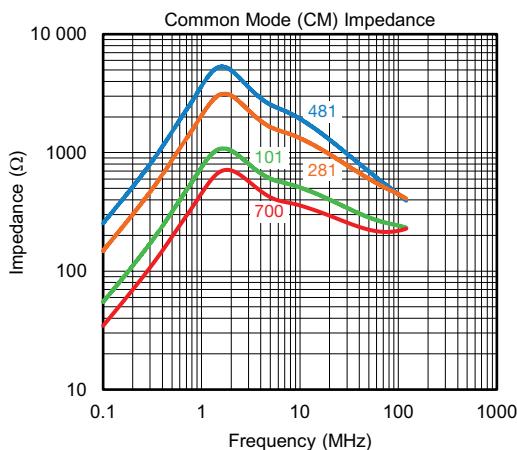
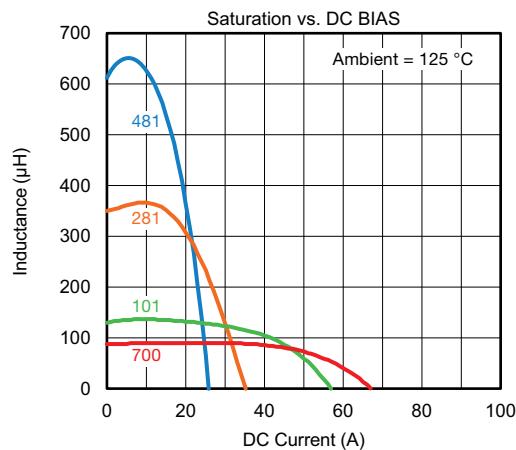
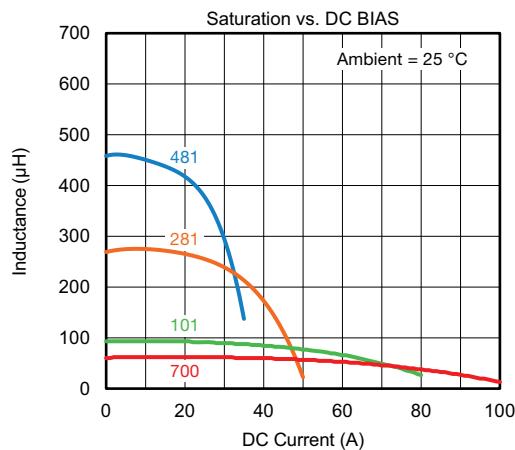
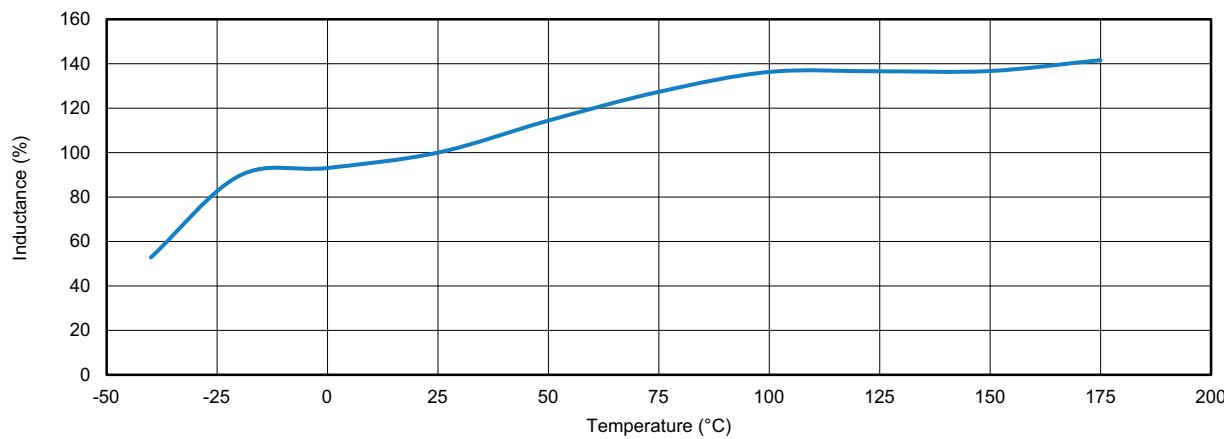
⁽¹⁾ Coplanarity of four terminals = 0.15 mm max.

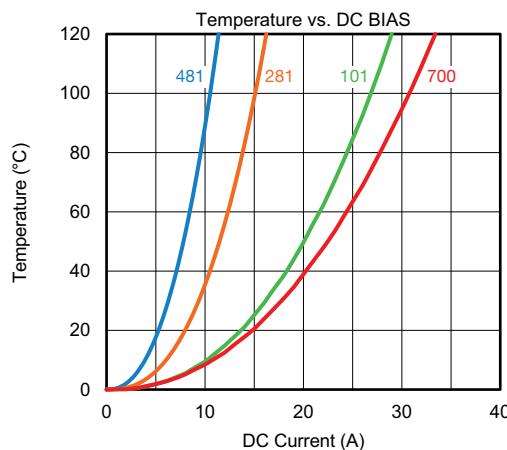
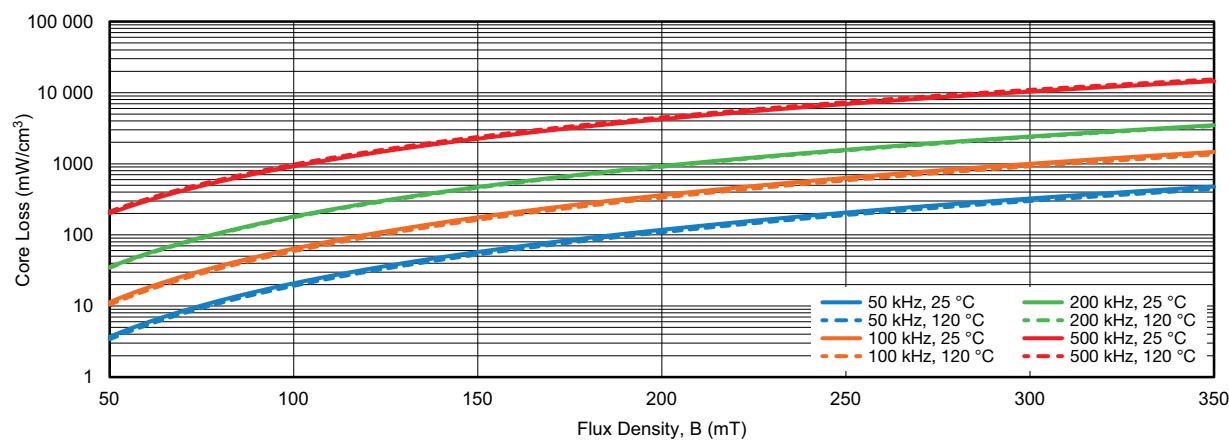
GLOBAL PART NUMBER			
I	C	M	S
2	3	2	1
A		G	
PRODUCT FAMILY	CORE SIZE	HEIGHT	
23 mm x 21 mm	AG = 17 mm AB = 12 mm		
		PACKAGE CODE / MOUNTING	
		EG = surface-mount EH = through-hole	
		INDUCTANCE	
		101 = 100 μ H	
			N = 30 %
			IMPEDANCE TOLERANCE
			1 A
			SERIES

Notes

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



PERFORMANCE GRAPHS - FREQUENCY RESPONSE

PERFORMANCE GRAPHS - SATURATION

PERFORMANCE GRAPHS - INDUCTANCE VS. COMPONENT TEMPERATURE


PERFORMANCE GRAPHS - TEMPERATURE RISE

PERFORMANCE GRAPHS - CORE LOSS VS. FLUX DENSITY VS. FREQUENCY VS. TEMPERATURE


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