

## Common Mode Choke



### 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 [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)



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

### LINKS TO ADDITIONAL RESOURCES



3D Models

### APPLICATIONS

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

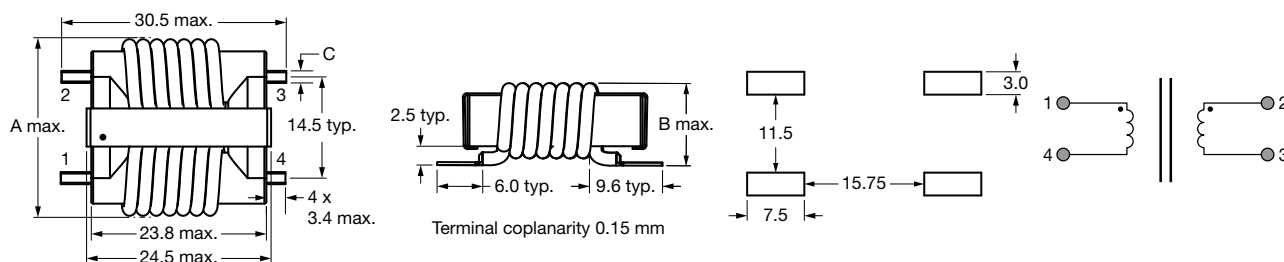
### STANDARD ELECTRICAL SPECIFICATIONS

| PART NUMBER        | L <sub>0</sub> INDUCTANCE<br>± 30 % AT 100 kHz,<br>0.25 V, 0 A<br>(μH) | COMMON MODE<br>IMPEDANCE<br>AT 10 MHz, TYP.<br>(Ω) | DC<br>RESISTANCE<br>MAX.<br>(Ω) | HEAT RATING<br>CURRENT<br>TYPICAL (EST.)<br>(A <sub>DC</sub> ) <sup>(1)</sup> | SATURATION<br>CURRENT<br>AT 25 °C TYP.<br>(A <sub>DC</sub> ) <sup>(2)</sup> | LEAKAGE<br>MAX.<br>(μH) |
|--------------------|------------------------------------------------------------------------|----------------------------------------------------|---------------------------------|-------------------------------------------------------------------------------|-----------------------------------------------------------------------------|-------------------------|
| 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 %

### DIMENSIONS in millimeters



| PART NUMBER        | A MAX. (mm) | B MAX. (mm) | C ± 0.2 (mm) |
|--------------------|-------------|-------------|--------------|
| IHCM2321AAEG900N10 | 25.5        | 12.0        | 2.4          |
| IHCM2321AAEG121N10 | 25.0        | 11.5        | 2.2          |
| IHCM2321AAEG251N10 | 24.5        | 11.0        | 1.8          |
| IHCM2321AAEG301N10 | 24.0        | 10.5        | 1.6          |
| IHCM2321AAEG481N10 | 23.5        | 9.5         | 1.5          |



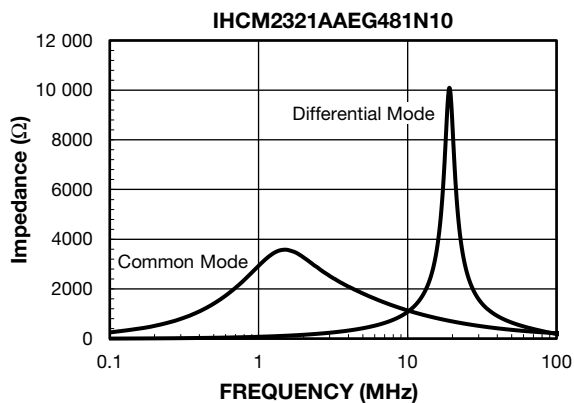
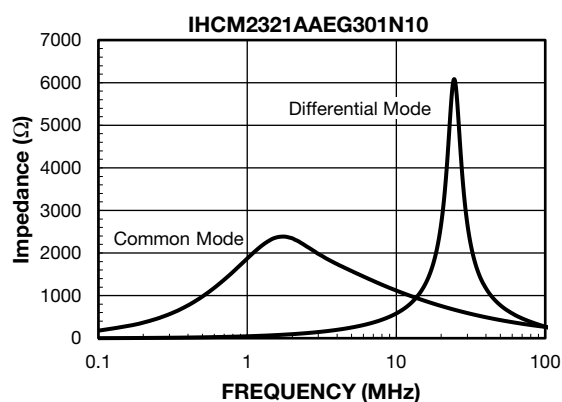
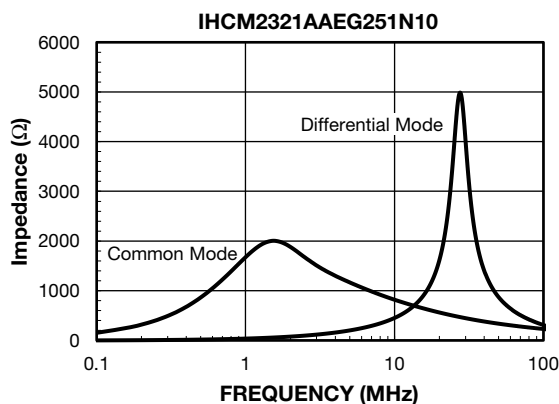
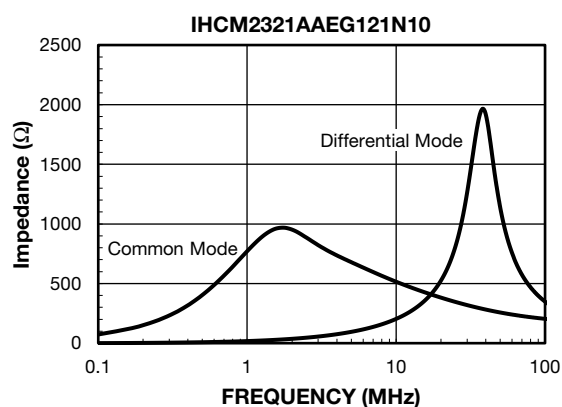
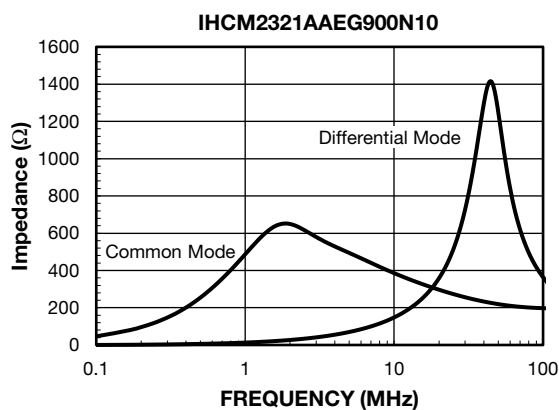
### DESCRIPTION

|                |                 |                      |              |                                |
|----------------|-----------------|----------------------|--------------|--------------------------------|
| IHCM-2321AA-10 | 90 $\mu$ H      | $\pm 30\%$           | EG           | e3                             |
| MODEL          | IMPEDANCE VALUE | INDUCTANCE TOLERANCE | PACKAGE CODE | JEDEC® LEAD (Pb)-FREE STANDARD |

### GLOBAL PART NUMBER

|                |   |   |   |      |   |   |   |              |   |           |   |   |      |   |        |   |   |
|----------------|---|---|---|------|---|---|---|--------------|---|-----------|---|---|------|---|--------|---|---|
| I              | H | C | M | 2    | 3 | 2 | 1 | A            | A | E         | G | 9 | 0    | 0 | N      | 1 | 0 |
| PRODUCT FAMILY |   |   |   | SIZE |   |   |   | PACKAGE CODE |   | IMPEDANCE |   |   | TOL. |   | SERIES |   |   |

### PERFORMANCE GRAPHS: IMPEDANCE VS. FREQUENCY CHARACTERISTICS





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