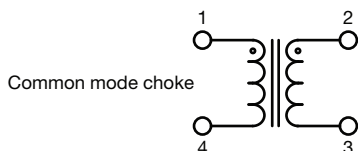
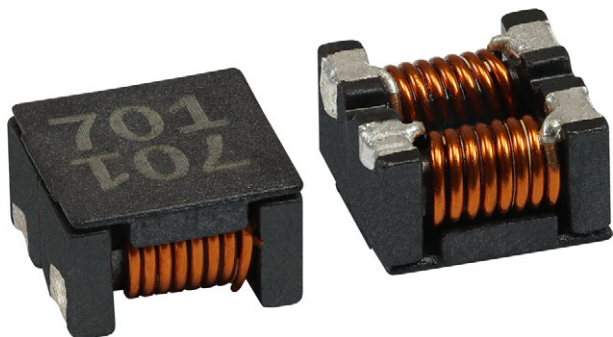


## High Current, SMD Common Mode Choke



### FEATURES

- Wirewound ferrite common mode choke
- 5.5 mm x 5.5 mm x 3.5 mm SMD package
- 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

- DC/DC power supplies
- LCD displays
- Noise suppression and filtering
- Lighting drivers
- Battery powered devices

### ELECTRICAL SPECIFICATIONS

Resistance to solder heat: 250 °C peak for < 30 s (3 times max. through reflow)

### LINKS TO ADDITIONAL RESOURCES



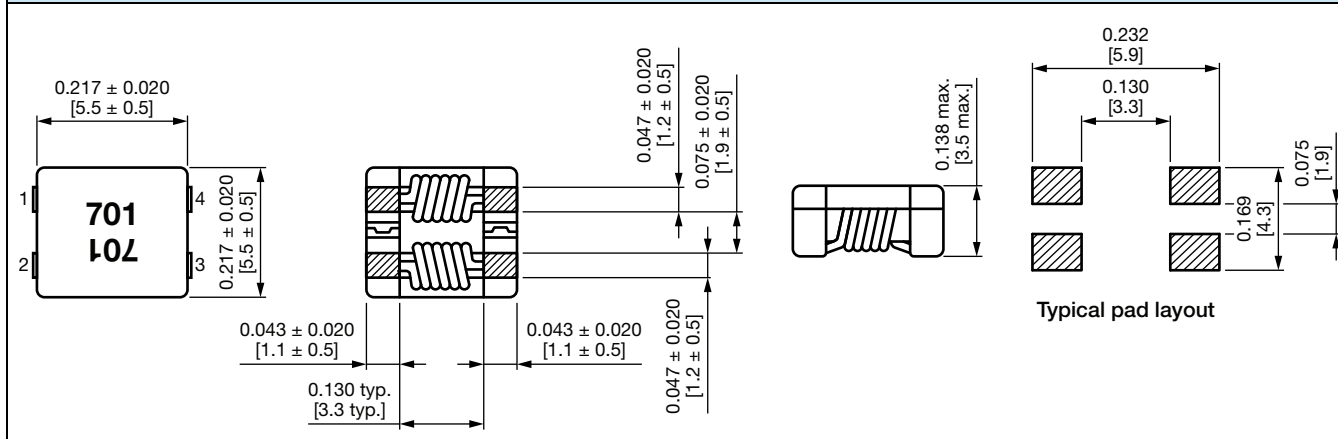
Product Page

| STANDARD ELECTRICAL SPECIFICATIONS |   |  |                     |  |
|------------------------------------|---|--|---------------------|--|
| PART NUMBER                        | COMMON MODE IMPEDANCE AT 10 MHz, TYP. (Ω) | COMMON MODE IMPEDANCE AT 100 MHz, TYP. (Ω) | DCR MAX. 25 °C (mΩ) | HEAT RATING CURRENT DC TYP. (A) <sup>(1)</sup> |
| ICM2020ER101R                      | 50  | 100  | 6                   | 8.5  |
| ICM2020ER301R                      | 70  | 300  | 7.5                 | 4.8  |
| ICM2020ER501R                      | 150                                       | 500  | 10.5                | 4.5  |
| ICM2020ER701R                      | 200                                       | 700  | 13                  | 3.8  |
| ICM2020ER102R                      | 250                                       | 1000                                       | 20                  | 3.0  |
| ICM2020ER142R                      | 300                                       | 1400                                       | 38                  | 2.8  |

#### Notes

- All test data is referenced to 25 °C ambient
- DCR specification is for a single coil
- Rated operating voltage = 80 V<sub>DC</sub>
- Insulating resistance 10 MΩ min.
- Operating temperature range -40 °C to +125 °C
- Storage condition: -40 °C to +125 °C (on board); less than 40°C and < 60 % RH (in component packaging)

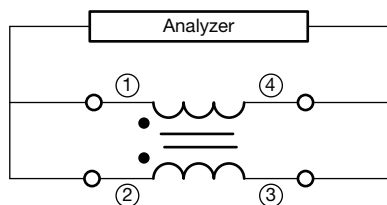
<sup>(1)</sup> DC current (A) that will cause an approximate ΔT of 40 °C

**DIMENSIONS** in inches [millimeters]

**GLOBAL PART NUMBER**

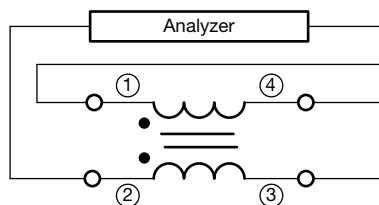
|                |          |          |          |          |          |          |                    |          |                 |          |          |           |
|----------------|----------|----------|----------|----------|----------|----------|--------------------|----------|-----------------|----------|----------|-----------|
| <b>I</b>       | <b>C</b> | <b>M</b> | <b>2</b> | <b>0</b> | <b>2</b> | <b>0</b> | <b>E</b>           | <b>R</b> | <b>3</b>        | <b>0</b> | <b>1</b> | <b>R</b>  |
| PRODUCT FAMILY |          |          | SIZE     |          |          |          | PACKAGE CODE       |          | IMPEDANCE VALUE |          |          | TOLERANCE |
|                |          |          |          |          |          |          | ER = tape and reel |          | 301 = 300 Ω     |          |          | R = 50 %  |

**SCHEMATICS**

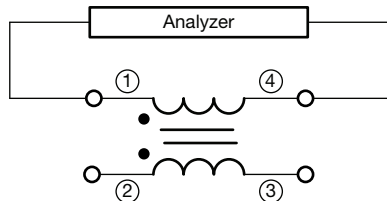
Common Mode Impedance



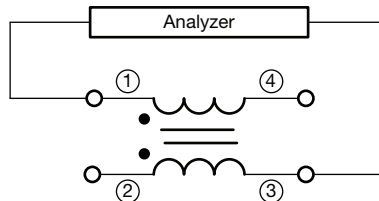
Differential Mode Impedance



DC Resistance

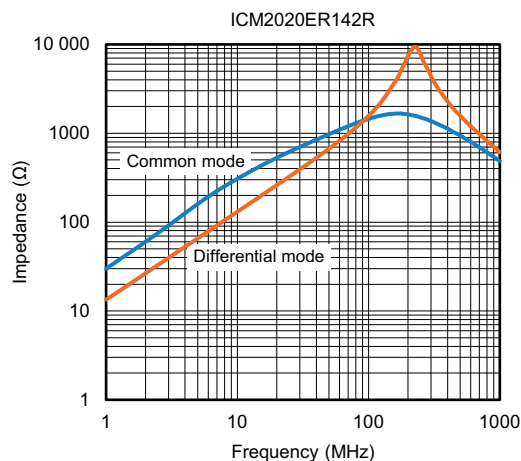
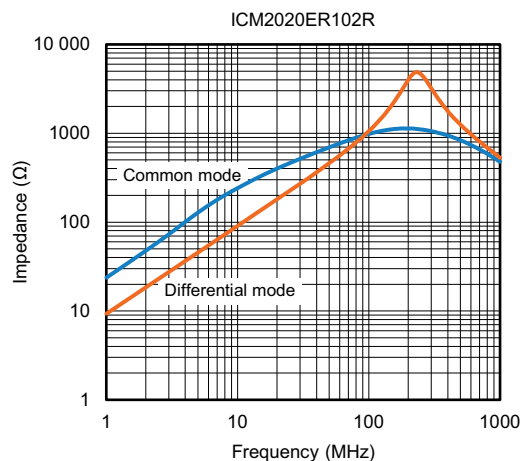
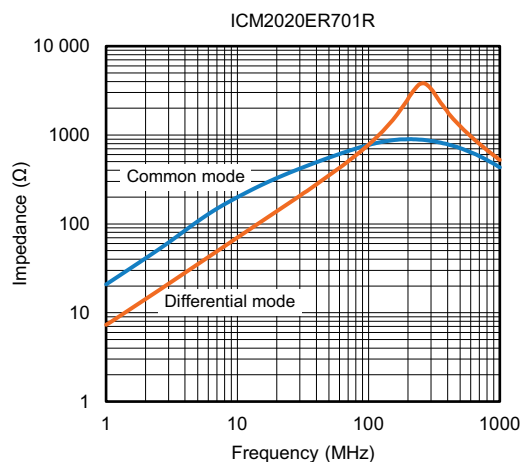
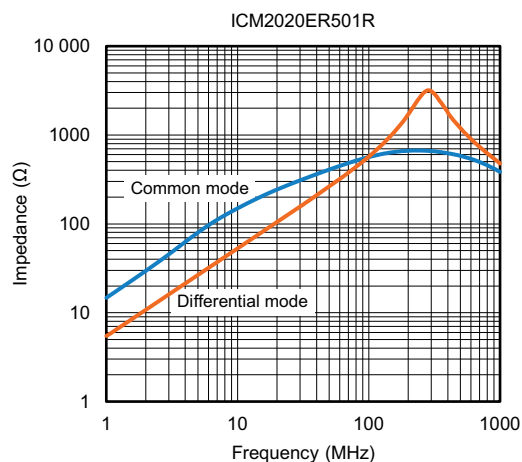
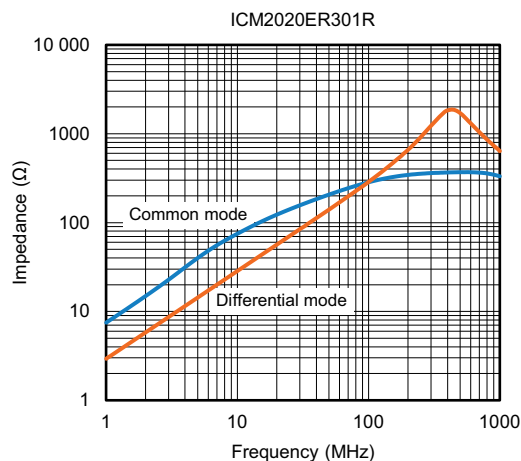
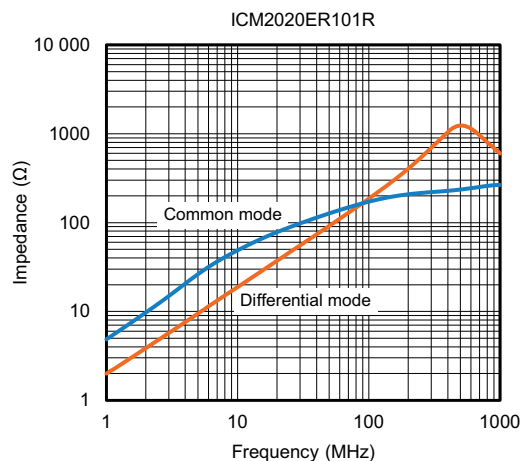


Insulation Resistance





PERFORMANCE GRAPHS





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