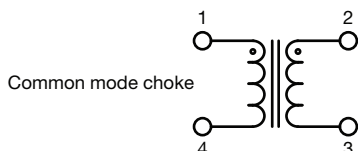
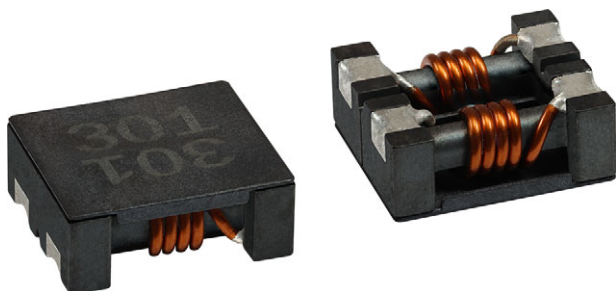


# High Current, SMD Common Mode Choke



## FEATURES

- Wirewound ferrite common mode choke
- 15.0 mm x 13.0 mm x 6.0 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

## LINKS TO ADDITIONAL RESOURCES


[Product Page](#)

## ELECTRICAL SPECIFICATIONS

Resistance to solder heat: 245 °C peak for < 30 s (3 times max. through reflow)

## 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>
ICM6050ER301N	40	300	3.5	14
ICM6050ER551M	60	550	4	10
ICM6050ER701N	80	700	5	10

### Notes

- All test data is referenced to 25 °C ambient
- DCR specification is for a single coil
- Rated operating voltage = 125 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]

A	B	C	D	E	F	G	L	H	G1	G2
0.591 ± 0.020 [15.0 ± 0.5]	0.512 ± 0.016 [13.0 ± 0.4]	0.236 max. [6.0 max.]	0.366 typ. [9.3 typ.]	0.106 ± 0.020 [2.7 ± 0.5]	0.142 ± 0.020 [3.6 ± 0.5]	0.110 ± 0.020 [2.8 ± 0.5]	0.670 ref. [17.0 ref.]	0.362 ref. [9.2 ref.]	0.409 ref. [10.4 ref.]	0.150 ref. [3.8 ref.]



## GLOBAL PART NUMBER

I C M

PRODUCT  
FAMILY

6 0 5 0

SIZE

E R

PACKAGE CODE

ER = tape and reel

3 0 1

IMPEDANCE  
VALUE

301 = 300  $\Omega$

N

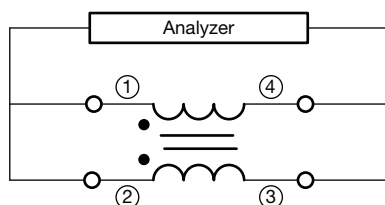
TOLERANCE

M = 20 %

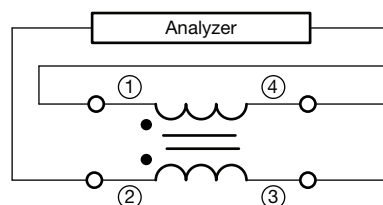
N = 25 %

## SCHEMATICS

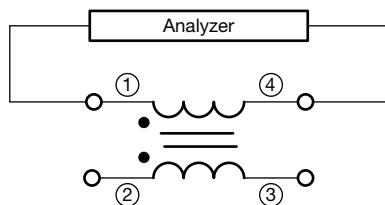
Common Mode Impedance



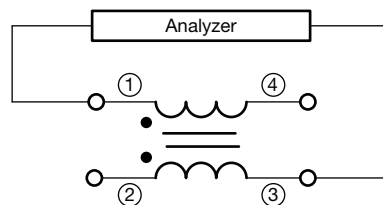
Differential Mode Impedance

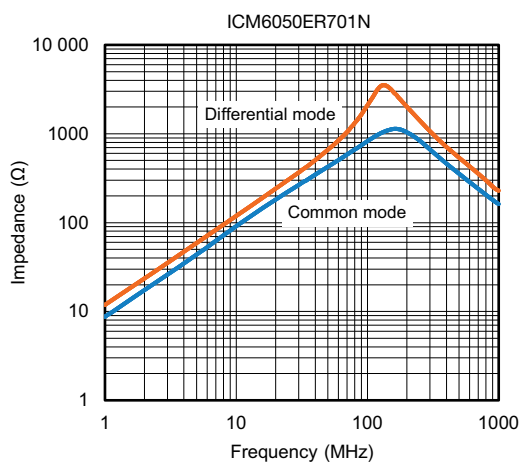
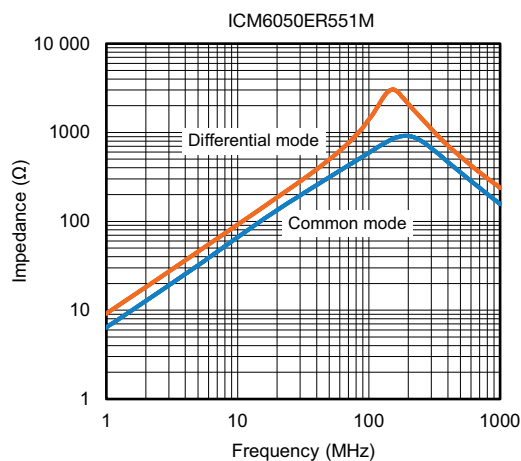
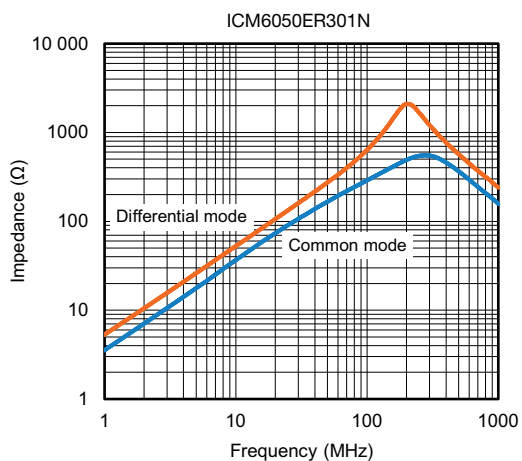


DC Resistance



Insulation Resistance



**PERFORMANCE GRAPHS**




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