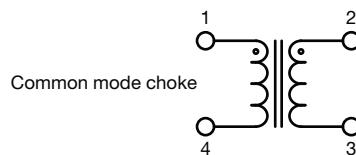
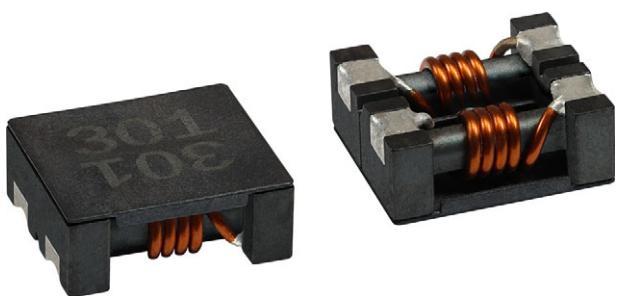


## High Current, SMD Common Mode Choke



### LINKS TO ADDITIONAL RESOURCES


[Product Page](#)

### FEATURES

- Wirewound ferrite common mode choke
- 15.0 mm x 13.0 mm x 6.0 mm SMD package
- AEC-Q200 qualified
- 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: 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>
ICM6050ER301NA	40	300	3.5	14
ICM6050ER551MA	60	550	4	10
ICM6050ER701NA	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

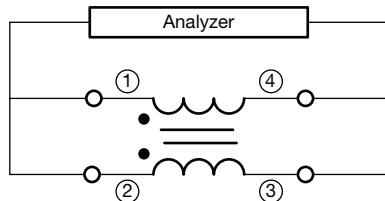
DIMENSIONS in inches [millimeters]											
A	B	C	D	E	F	G	L	H	G1	G2	
0.591 ± 0.020 [15.0 ± 0.5]	0.512 ± 0.016 [13.0 ± 0.4]	0.236 max. [6.0 max.]	0.366 typ. [9.3 typ.]	0.106 ± 0.020 [2.7 ± 0.5]	0.142 ± 0.020 [3.6 ± 0.5]	0.110 ± 0.020 [2.8 ± 0.5]	0.670 ref. [17.0 ref.]	0.362 ref. [9.2 ref.]	0.409 ref.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

**GLOBAL PART NUMBER**

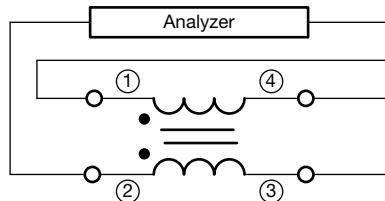
I	C	M	6	0	5	0	E	R	3	0	1	R	A
PRODUCT FAMILY			SIZE				PACKAGE CODE		IMPEDANCE VALUE			TOLERANCE	AUTOMOTIVE SERIES
							ER = tape and reel		301 = 500 $\Omega$			M = 20 %	
												N = 25 %	

**SCHEMATICS**

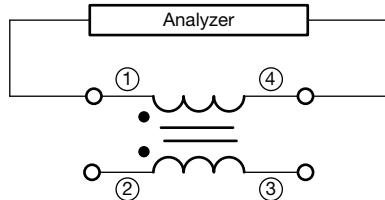
Common Mode Impedance



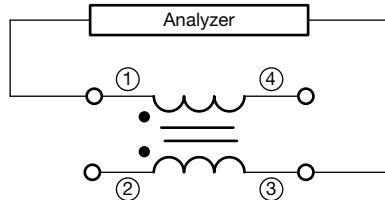
Differential Mode Impedance

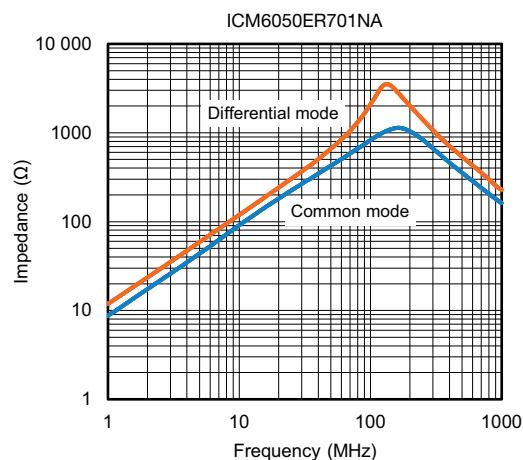
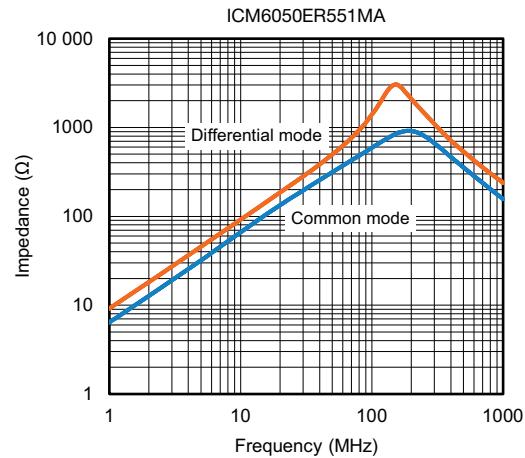
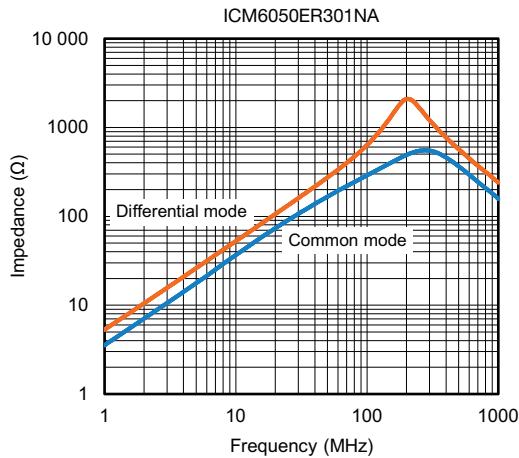


DC Resistance



Insulation Resistance



**PERFORMANCE GRAPHS**


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