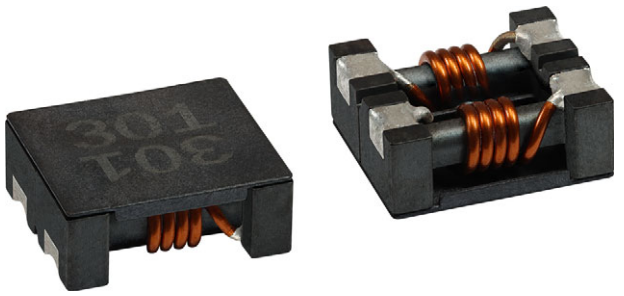
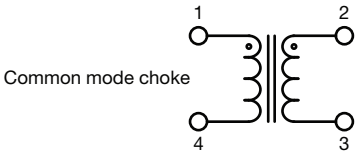
High Current, SMD Common Mode Choke





FEATURES

- Wirewound ferrite common mode choke
- 15.0 mm x 13.0 mm x 6.0 mm SMD package
- AEC-Q200 qualified
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

AUTOMOTIVE GRADE

Pb-free

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

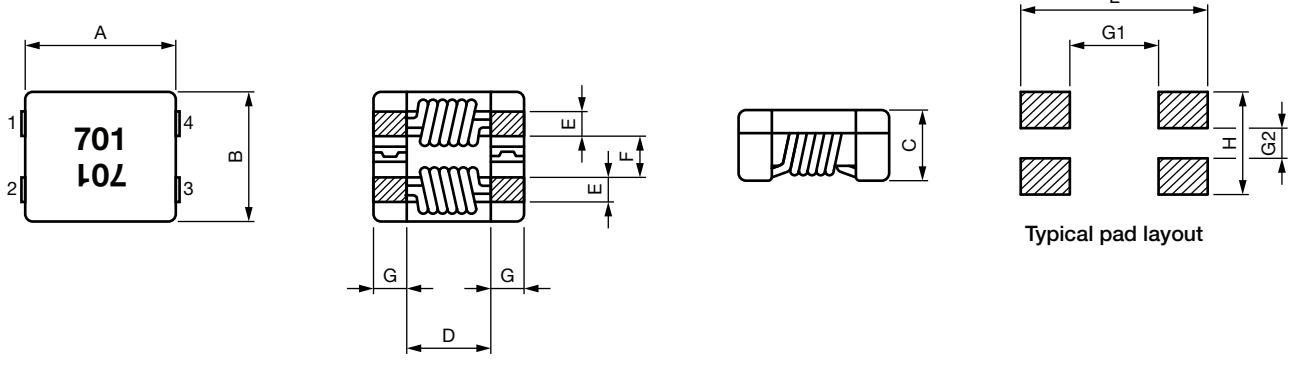
PART NUMBER	COMMON MODE IMPEDANCE, AT 10 MHz, TYP. (Ω)	COMMON MODE IMPEDANCE, AT 100 MHz, TYP. (Ω)	DCR MAX. 25 °C (mΩ)	HEAT RATING CURRENT DC TYP. (A) (1)
ICM6050ER301NA	40	300	3.5	14
ICM6050ER551MA	60	550	4	10
ICM6050ER701NA	80	700	5	10

Notes

- All test data is referenced to 25 °C ambient
- DCR specification is for a single coil
- Rated operating voltage = 125 V_{DC}
- 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)

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

DIMENSIONS in inches [millimeters]



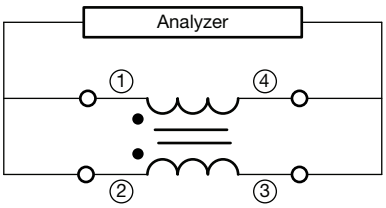
A	B	C	D	E	F	G	L	H	G1	G2
0.591 ± 0.020 [15.0 ± 0.5]	0.512 ± 0.016 [13.0 ± 0.4]	0.236 max. [6.0 max.]	0.366 typ. [9.3 typ.]	0.106 ± 0.020 [2.7 ± 0.5]	0.142 ± 0.020 [3.6 ± 0.5]	0.110 ± 0.020 [2.8 ± 0.5]	0.670 ref. [17.0 ref.]	0.362 ref. [9.2 ref.]	0.409 ref. [10.4 ref.]	0.150 ref. [3.8 ref.]

GLOBAL PART NUMBER

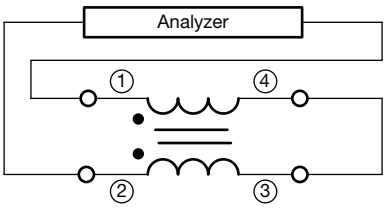
I C M	6 0 5 0	E R	3 0 1	R	A
PRODUCT FAMILY	SIZE	PACKAGE CODE	IMPEDANCE VALUE	TOLERANCE	AUTOMOTIVE SERIES
		ER = tape and reel	**301** = 500 Ω	**M** = 20 % **N** = 25 %	

SCHEMATICS

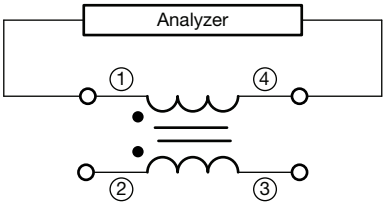
Common Mode Impedance



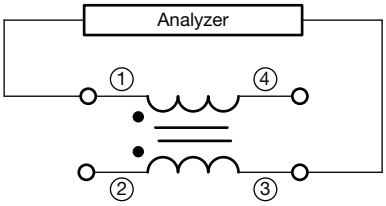
Differential Mode Impedance



DC Resistance

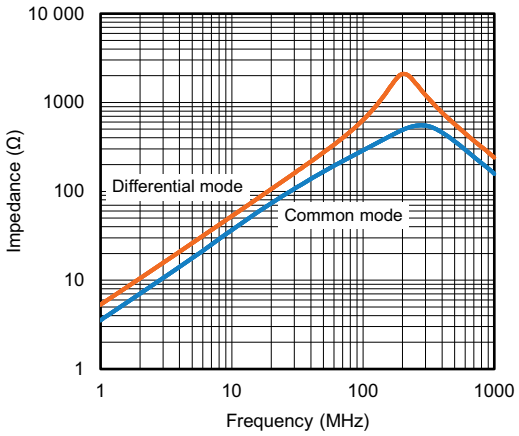


Insulation Resistance

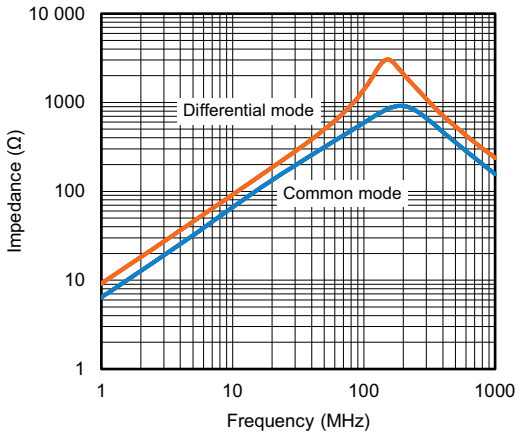


PERFORMANCE GRAPHS

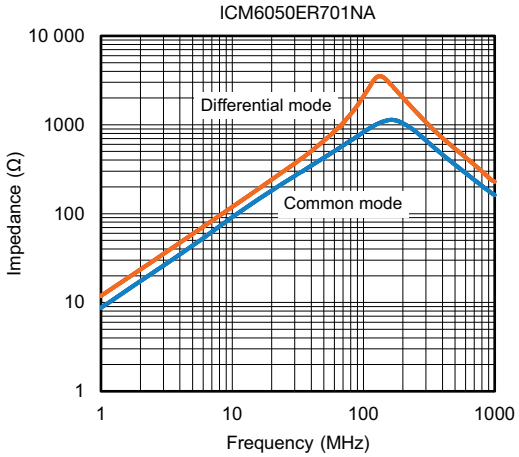
ICM6050ER301NA



ICM6050ER551MA



ICM6050ER701NA



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