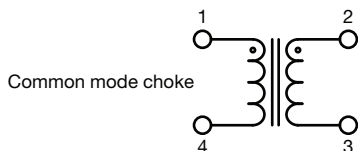
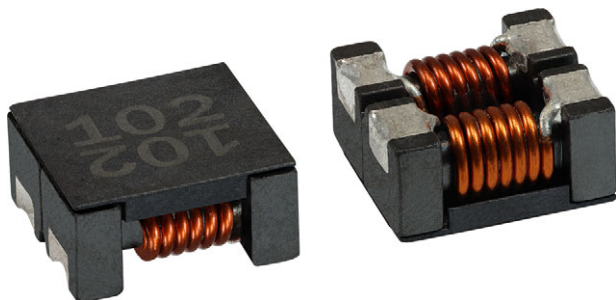


High Current, SMD Common Mode Choke



FEATURES

- Wirewound ferrite common mode choke
- 12.0 mm x 11.0 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

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 (m Ω)	HEAT RATING CURRENT DC TYP. (A) ⁽¹⁾
ICM5050ER501RA	160	500	4	11
ICM5050ER701NA	210	700	5	9
ICM5050ER102NA	340	1000	8	7
ICM5050ER172NA	850	1700	12	5.5

Notes

- All test data is referenced to 25 °C ambient
 - DCR specification is for a single coil
 - Rated operating voltage = 80 V_{DC}
 - Insulating resistance 10 M Ω 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
0.472 ± 0.020 [12.0 ± 0.5]	0.433 ± 0.012 [11.0 ± 0.3]	0.236 max. [6.0 max.]	0.264 typ. [6.7 typ.]	0.106 ± 0.020 [2.7 ± 0.5]	0.102 ± 0.020 [2.6 ± 0.5]	0.102 ± 0.020 [2.6 ± 0.5]	0.551 ref. [14.0 ref.]	0.311 ref. [7.9 ref.]	0.291 ref. [7.4 ref.]	0.098 ref. [2.5 ref.]



GLOBAL PART NUMBER

I C M
PRODUCT
FAMILY

5 0 5 0
SIZE

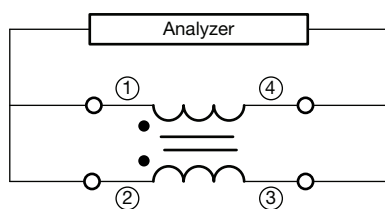
E R
PACKAGE CODE
ER = tape and reel

5 0 1
IMPEDANCE
VALUE
501 = 500 Ω

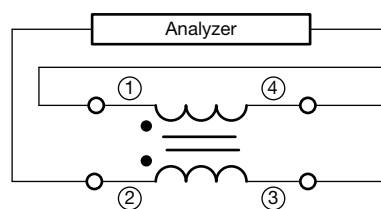
R A
TOLERANCE AUTOMOTIVE
SERIES
N = 25 %
R = 50 %

SCHEMATICS

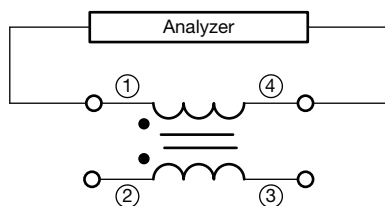
Common Mode Impedance



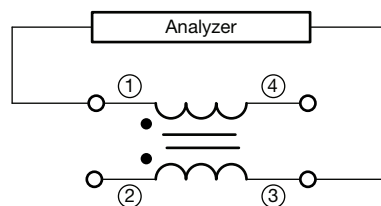
Differential Mode Impedance



DC Resistance

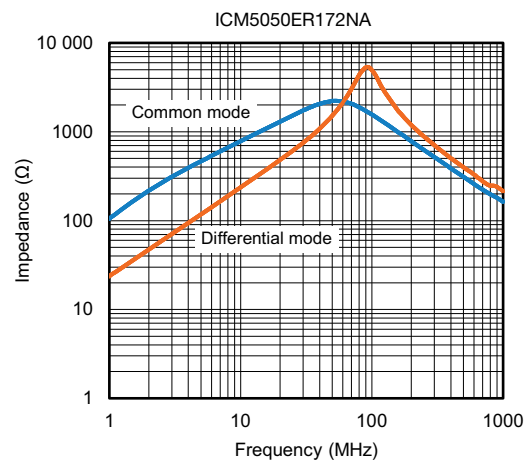
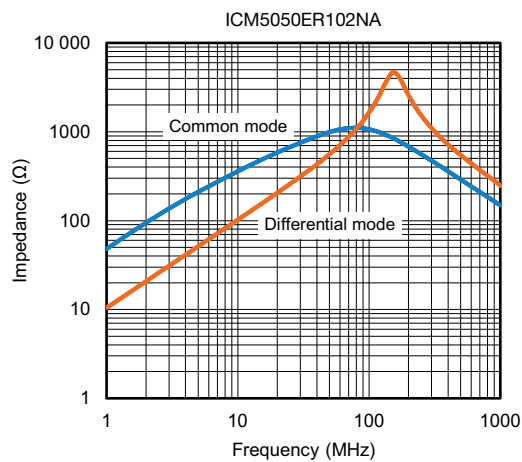
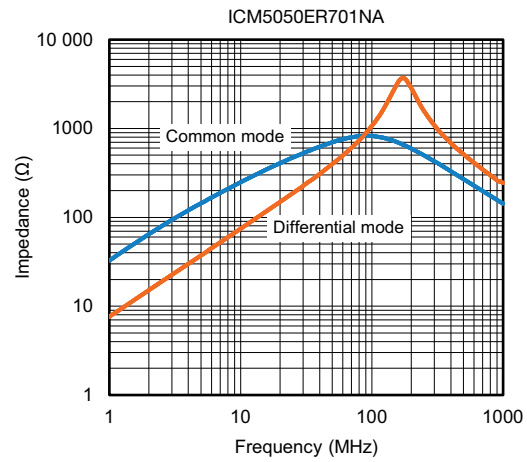
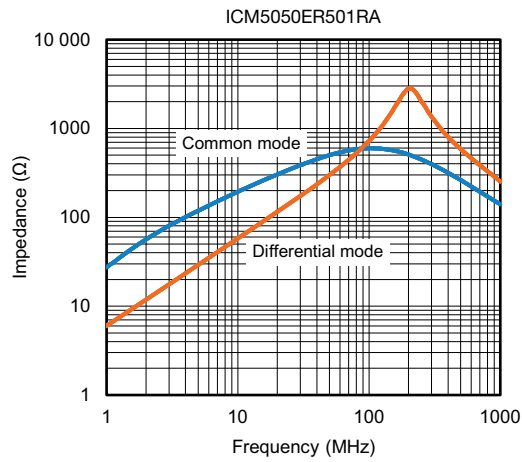


Insulation Resistance





PERFORMANCE GRAPHS





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