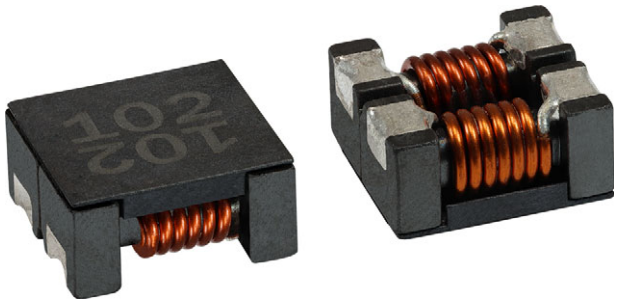
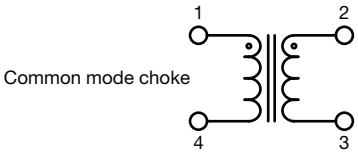
High Current, SMD Common Mode Choke





FEATURES

- Wirewound ferrite common mode choke
- 12.0 mm x 11.0 mm x 6.0 mm SMD package
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

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

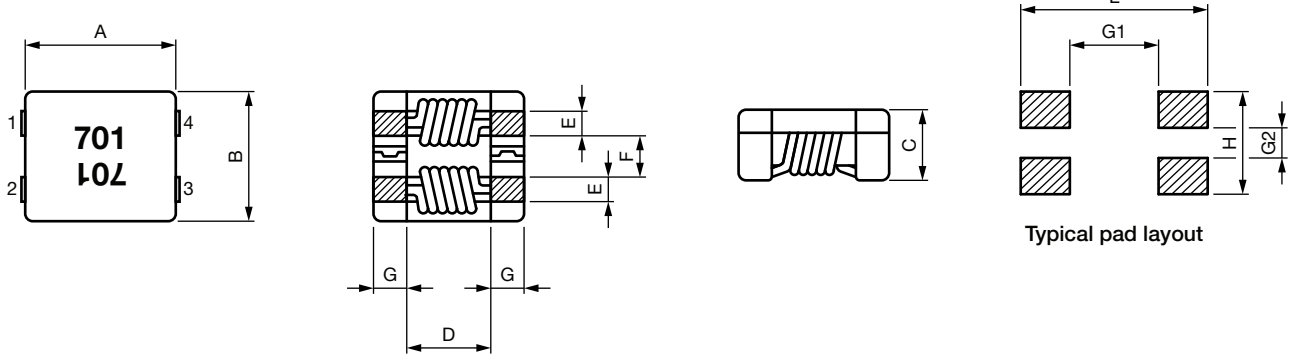
PART NUMBER	COMMON MODE IMPEDANCE, AT 10 MHz, TYP. (Ω)	COMMON MODE IMPEDANCE, AT 100 MHz, TYP. (Ω)	DCR MAX. 25 °C (mΩ)	HEAT RATING CURRENT DC TYP. (A) (1)
ICM5050ER501R	160	500	4	11
ICM5050ER701N	210	700	5	9
ICM5050ER102N	340	1000	8	7
ICM5050ER172N	850	1700	12	5.5

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 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
0.472 ± 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.]

For technical questions, contact: magnetics@vishay.com

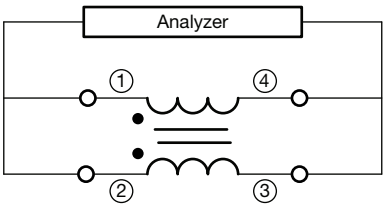
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GLOBAL PART NUMBER

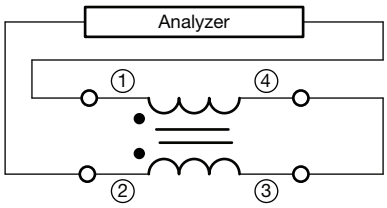
I C M	5 0 5 0	E R	5 0 1	R
PRODUCT FAMILY	SIZE	PACKAGE CODE	IMPEDANCE VALUE	TOLERANCE
		ER = tape and reel	**501** = 500 Ω	**N** = 25 % **R** = 50 %

SCHEMATICS

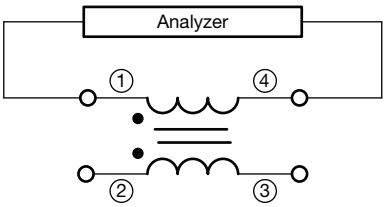
Common Mode Impedance



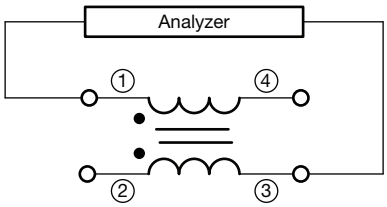
Differential Mode Impedance



DC Resistance



Insulation Resistance

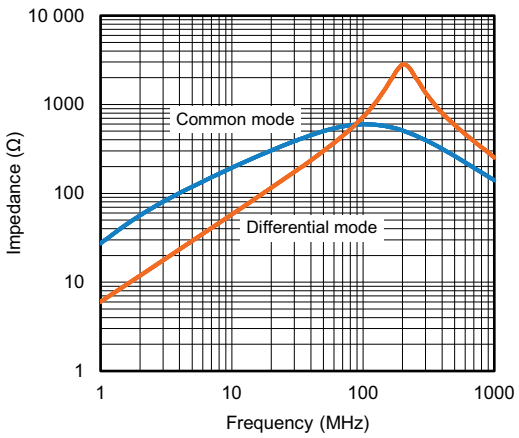


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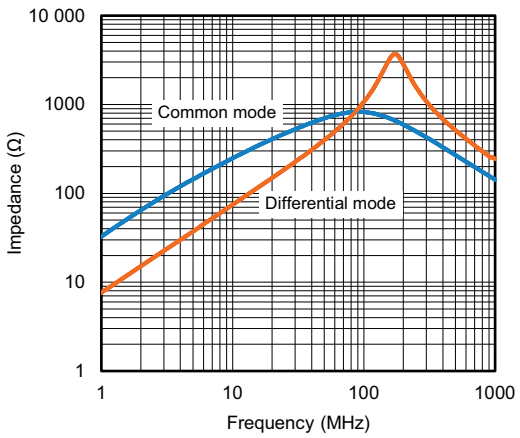
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PERFORMANCE GRAPHS

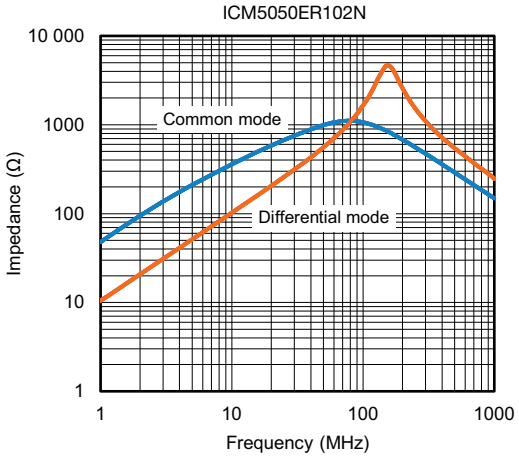
ICM5050ER501R



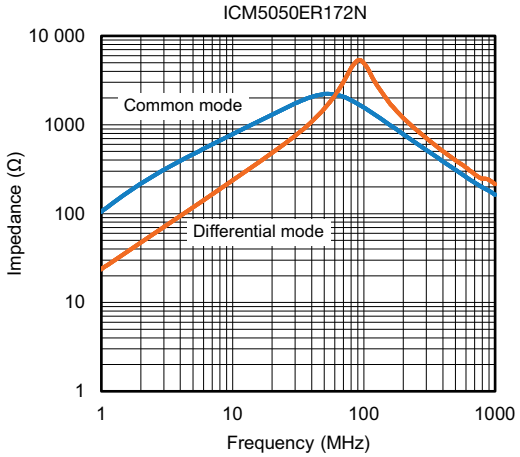
ICM5050ER701N



ICM5050ER102N



ICM5050ER172N



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