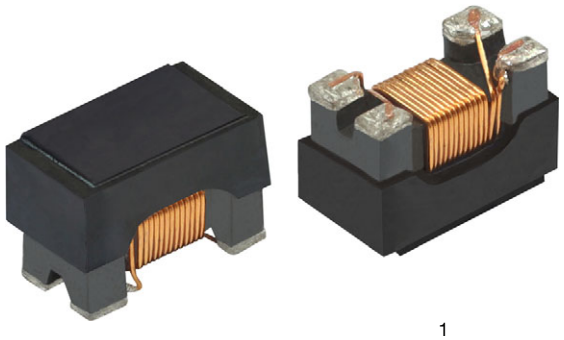
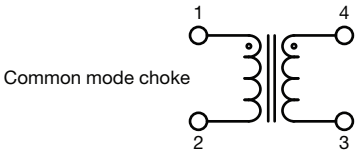
Surface-Mount Common Mode Choke





FEATURES

- Wirewound ferrite common mode choke
- 1.6 mm x 0.85 mm x 1.25 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

STANDARD ELECTRICAL SPECIFICATIONS

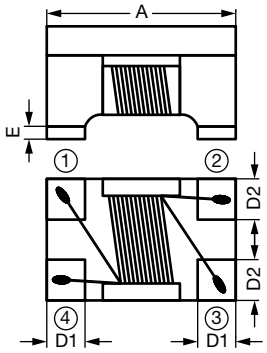
PART NUMBER	COMMON MODE IMPEDANCE, AT 10 MHz, TYP. (Ω)	COMMON MODE IMPEDANCE, AT 100 MHz, TYP. (Ω)	DCR MAX. 25 °C (mΩ)	HEAT RATING CURRENT DC TYP. (A) (1)
ICM0603ER220V	3.0	22	80	0.5
ICM0603ER450V	5.7	45	110	0.5
ICM0603ER900V	12.3	90	145	0.5
ICM0603ER121V	17.4	120	175	0.5
ICM0603ER181V	23.1	180	210	0.5
ICM0603ER251V	35.8	250	280	0.4

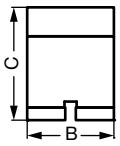
Notes

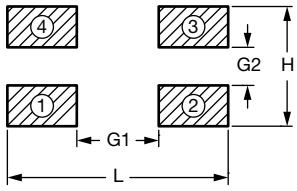
- All test data is referenced to 25 °C ambient
- Rated operating voltage = 50 V_{DC}
- Rated dielectric withstanding voltage = 125 V_{DC}
- Insulating resistance 10 MΩ min.
- Operating temperature range -40 °C to +125 °C
- Storage condition: -40 °C to +125 °C (on board); less than 40°C and < 60 % RH (in component packaging)

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

DIMENSIONS in inches [millimeters]







Recommended PCB layout

A	B	C	D1	D2	E	L	H	G1	G2
0.063 ± 0.006 [1.60 ± 0.15]	0.033 ± 0.006 [0.85 ± 0.15]	0.043 ± 0.006 [1.10 ± 0.15]	0.012 typ. [0.30 typ.]	0.012 typ. [0.30 typ.]	0.001 min. [0.03 min.]	0.083 ref. [2.10 ref.]	0.039 ref. [1.00 ref.]	0.028 ref. [0.70 ref.]	0.012 ref. [0.30 ref.]

For technical questions, contact: magnetics@vishay.com

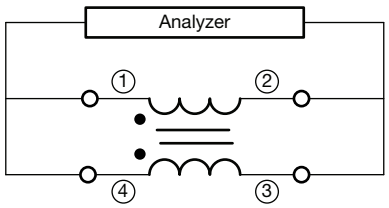
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GLOBAL PART NUMBER

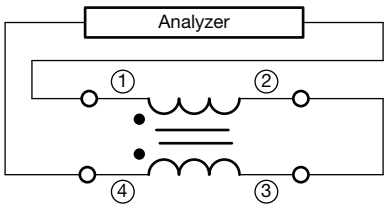
I C M	0 6 0 3	E R	2 2 0	V
PRODUCT FAMILY	SIZE	PACKAGE CODE	IMPEDANCE VALUE	TOLERANCE
		ER = tape and reel	**220** = 22 Ω	**V** = 25 %

SCHEMATICS

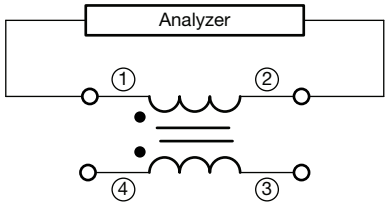
Common Mode Impedance



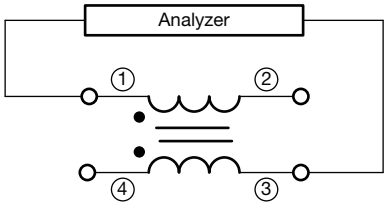
Differential Mode Impedance



DC Resistance



Insulation Resistance

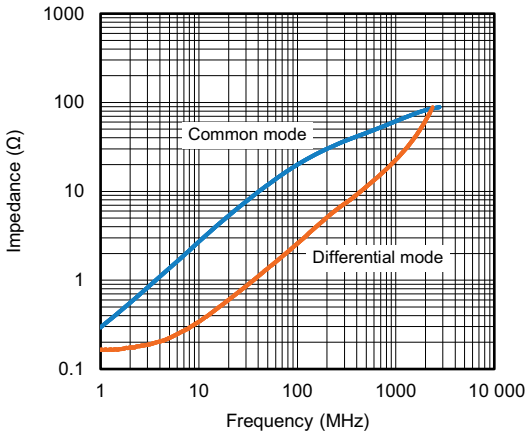


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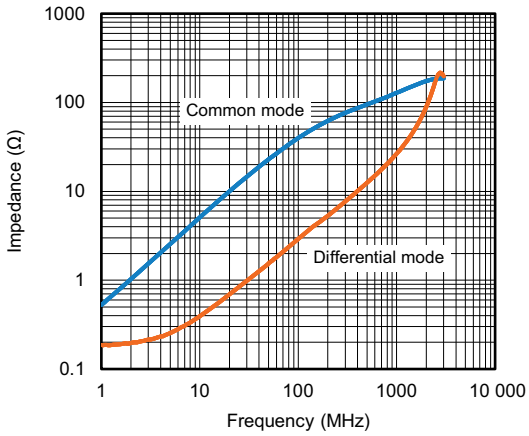
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PERFORMANCE GRAPHS

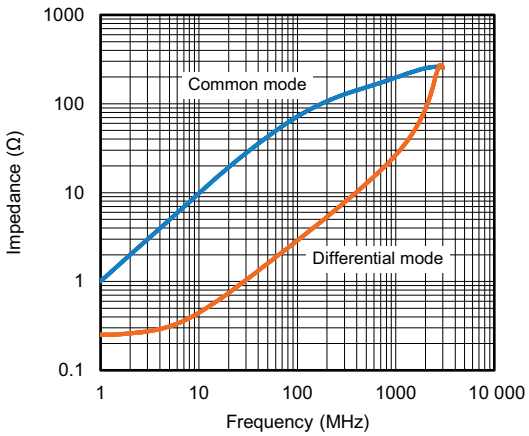
ICM0603ER220V



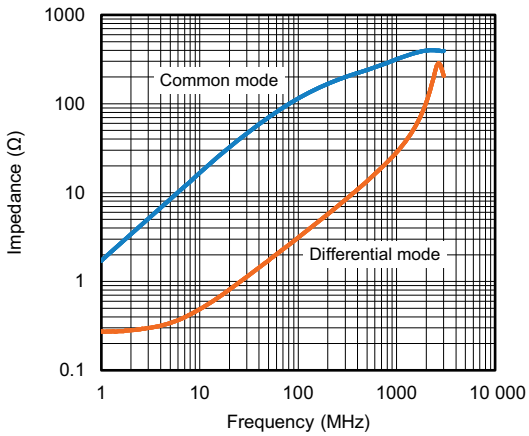
ICM0603ER450V



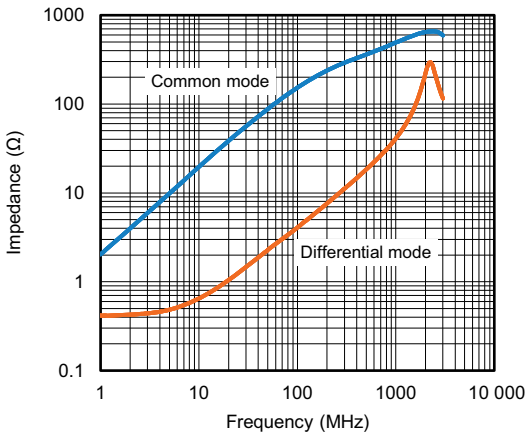
ICM0603ER900V



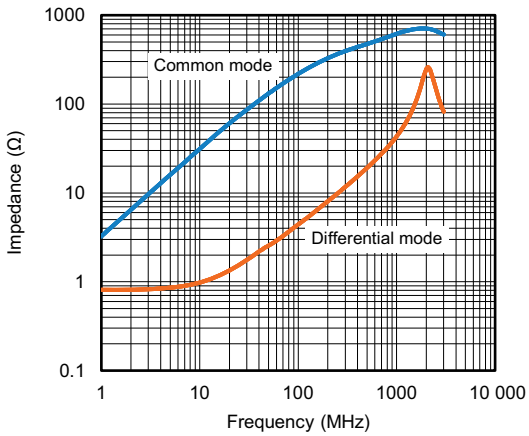
ICM0603ER121V



ICM0603ER181V



ICM0603ER251V



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