

DC common mode choke coil

WCNFC121009/DS



Features

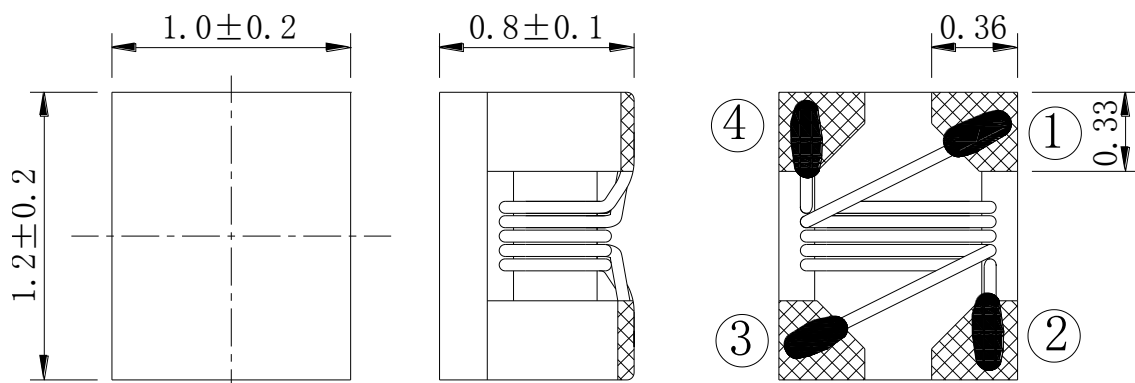
- Special very low profile and small size SMD design.
- Wound Chip constructure with standard 0805 to 1812 size.
- Best EMI suppression effect but least impact to data signal wave form.
- Very high Self-resonance frequency enables high cut-off frequency.
- Excellent Solderability.
- L x W x H: 1.4x1.2x0.9mm Max.
- Moisture sensitivity level: MSL.1.
- RoHs & Halogen free compliance
- Operation temperature range: -40°C ~ 125 °C(Including coil's self heat)
- Storage temperature range: -40°C ~ 125 °C



Applications

- For common mode noise suppression in high-speed differential signal lines: USB 2.0, IEEE1394, LVDS, etc..
- High Speed differential signal lines for HDMI, DVI, etc..
- Audio lines.
- For USB 3.x application.
- Best for NB, DSC, mobile device design.
- Multimedia system and Ethernet(100BASE-T1).
- Common mode noise filter for power line.
- For LAN module application.

Dimensions (mm)



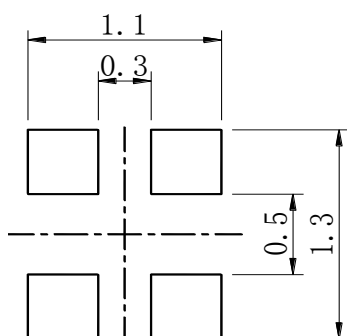
Note : This specification is subject to change without notice. Please contact your nearest sales office for updated information when placing an order.

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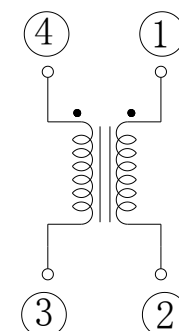
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Land patterns (mm)



Terminal Connection



(Bottom view)

Electrical specifications

Part No.	Common mode Impedance (Ω) Within 1-2 (3-4)	D.C.R (mΩ) Max. (Typ.) (1-2)OR (3-4)	Insulation resistance (MΩ) Min. (1-2)-(3-4)	Rated Voltage (Vdc) Max.	Temperature rise current (mA) ※1 Max. (1-2) OR (3-4)
	100MHz,0.5V	at 25°C	DC100V,60S		
WCNFC121009DS-200	20±25%	82(65)	10	20	800
WCNFC121009DS-350	35±25%	120(96)	10	20	730
WCNFC121009DS-450	45±25%	120(96)	10	20	730
WCNFC121009DS-600	60±25%	157(125)	10	20	600
WCNFC121009DS-900	90±25%	157(125)	10	20	600
WCNFC121009DS-161	160±25%	213(170)	10	20	560
WCNFC121009DS-201	200±25%	300(240)	10	20	430
WCNFC121009DS-301	300±25%	495(396)	10	20	330

※1 Temperature rise current: The actual value of DC current when temperature of coil rise is $\Delta T=40^{\circ}\text{C}$ ($T_a=25^{\circ}\text{C}$)

(Test board condition:FR4,Copper=70 μ m,four-layer PWB t=1.6mm)

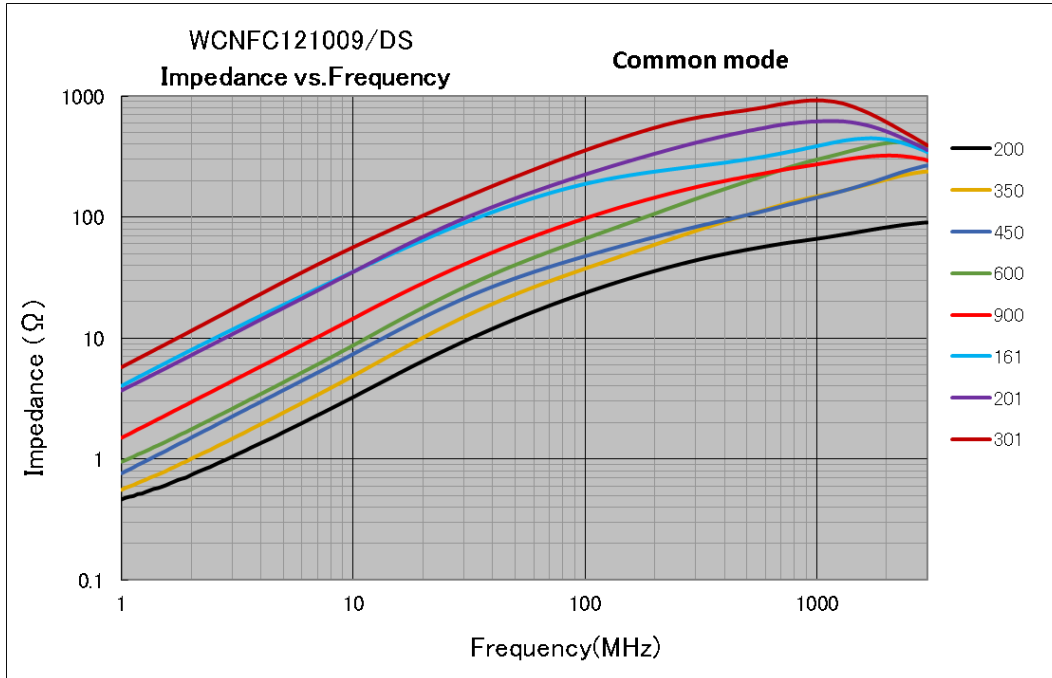
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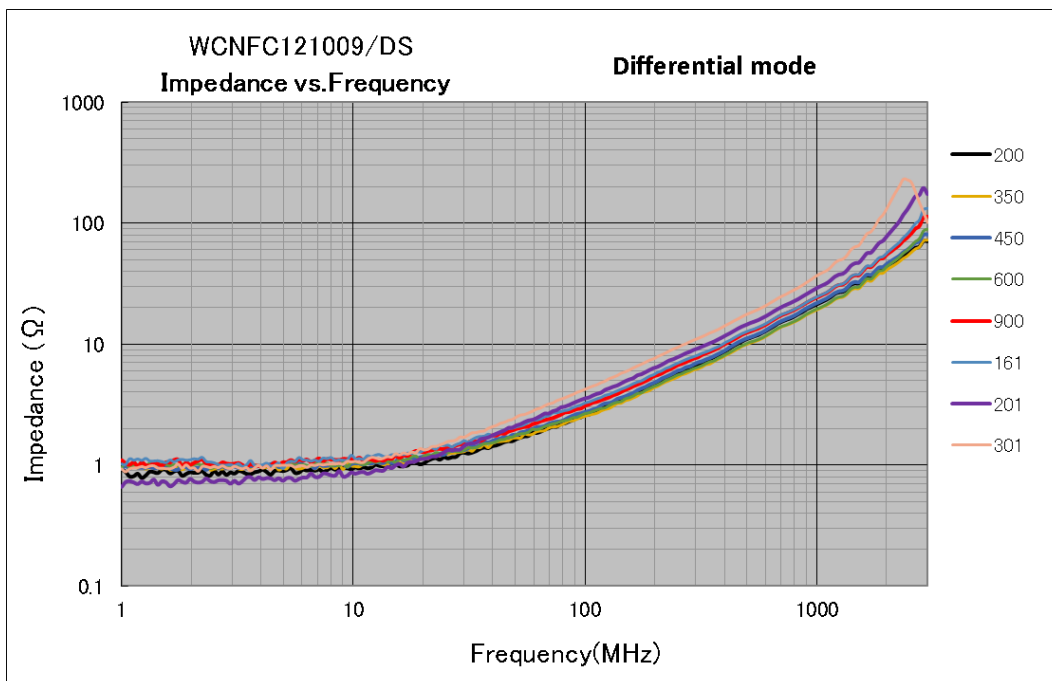


Common mode Impedance Characteristics

Impedance vs. frequency Common mode



Impedance vs. frequency Differential mode



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