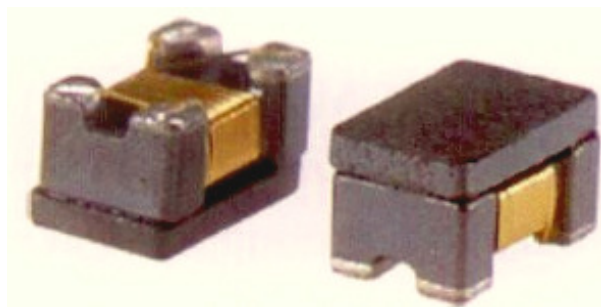


Wire-wound Common Mode Filter



◆ Features

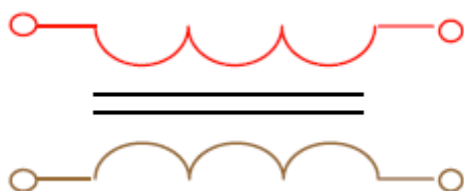
- 1、 Powerful component with composite co-fired material to solve EMI problem for high-speed differential signal transmission line as USB, IEEE1394 and LVDS, without distortion to high speed signal transmission
- 2、 High coupling constant : 0.99
- 3、 Small size and low profile
- 4、 Various common mode impedance items of 67 to 220 ohm can be used, considering noise level and signal frequency
- 5、 Small dimension enable higher density packaging
- 6、 RoHS Compliant.



◆ Application

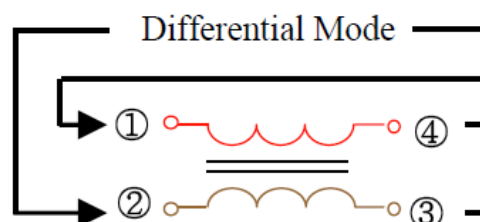
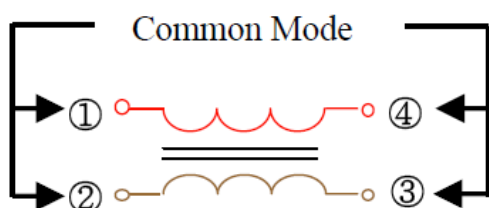
Common mode noise suppression of signal lines in high speed and high density digital equipment such as personal computer, facsimiles, modem, and digital telephones.

◆ Equivalent Circuit Diagram



◆ Impedance :

Measured by using Agilent E4991A RF Impedance Analyzer

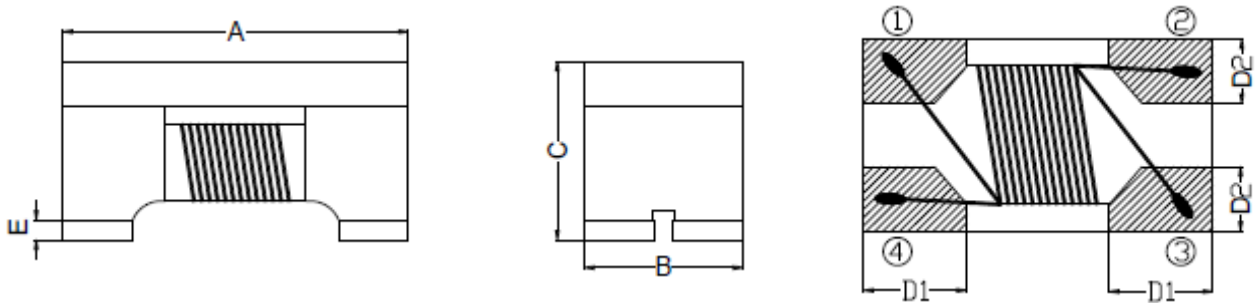


◆ PRODUCT IDENTIFICATION

SMW 2012 B 900 D T E
(1) (2) (3) (4) (5) (6) (7)

- (1) Series Type
- (2) Chip Size (mm) :Length X Width
- (3) Material type : With magnetic shield(B/D/H)
- (4) Nominal Impedance:900=90Ω;
101=100Ω
- (5) Rated Curren: A=250mA; B=300mA;C=350mA;
D=400mA;
- (6) Company Code
- (7) Packaging: P – Embossed paper tape, 7" reel
E – Embossed plastic tape, 7" reel
T – Tape & reel

◆ **Dimensions** Unit: mm



Series	A(mm)	B(mm)	C(mm)	D1(mm)	D2(mm)	E(mm)
SMW1608	1.6 ± 0.1	0.8 ± 0.	1.1 ± 0.1	0.33±0.1	0.25±0.1	0.12±0.1
SMW2012	2.0±0.2	1.2±0.2	1.2±0.2	0.55±0.1	0.46±0.1	0.15±0.1
SMW3216	3.2±0.2	1.6±0.2	1.9±0.2	0.6±0.1	0.6±0.1	0.17±0.1

◆ **Specifications**

Part Number	Common mode Impedance Z(Ω)	Test Frequency (MHz)	DC Resistance (Ω) max.	Rated Current (mA)	Rated Volt. (Vdc)	Withstand Volt. (Vdc)	IR (Ω) min.
SMW1608 Series							
SMW1608B670BTE	67 ± 25%	100	0.30	300	50	125	10M
SMW1608B900BTE	90 ± 25%	100	0.30	300	50	125	10M
SMW1608B121ATE	120 ± 25%	100	0.36	250	50	125	10M
SMW1608B161ATE	160 ± 25%	100	0.40	250	50	125	10M
SMW1608B221ATE	220 ± 25%	100	0.42	250	50	125	10M
SMW2012 Series							
SMW2012B670DTE	67 ± 25%	100	0.25	400	50	125	10M
SMW2012B900DTE	90 ± 25%	100	0.30	400	50	125	10M
SMW2012B121DTE	120 ± 25%	100	0.30	400	50	125	10M
SMW2012B161CTE	160 ± 25%	100	0.35	350	50	125	10M
SMW2012B181CTE	180 ± 25%	100	0.35	350	50	125	10M
SMW2012B201BTE	200 ± 25%	100	0.40	300	50	125	10M
SMW2012B221BTE	220 ± 25%	100	0.40	300	50	125	10M
SMW2012B261BTE	260 ± 25%	100	0.40	300	50	125	10M
SMW2012B361BTE	360 ± 25%	100	0.45	300	50	125	10M
SMW2012B371BTE	370 ± 25%	100	0.45	300	50	125	10M

◆ Specifications

Part Number	Common mode Impedance Z(Ω)	Test Frequency (MHz)	DC Resistance (Ω) max.	Rated Current (mA)	Rated Volt. (Vdc)	Withstand Volt. (Vdc)	IR (Ω) min.
SMW3216 Series							
SMW3216B900DTE	90 \pm 25%	100	0.30	450	50	125	20M
SMW3216B121DTE	120 \pm 25%	100	0.35	400	50	125	10M
SMW3216B161CTE	160 \pm 25%	100	0.40	350	50	125	10M
SMW3216B201CTE	200 \pm 25%	100	0.45	350	50	125	10M
SMW3216B221BTE	220 \pm 25%	100	0.45	300	50	125	10M
SMW3216B261BTE	260 \pm 25%	100	0.50	300	50	125	10M
SMW3216B361BTE	360 \pm 25%	100	0.60	300	50	125	10M
SMW3216B601ATE	600 \pm 25%	100	0.80	250	50	125	10M
SMW3216B102ATE	1000 \pm 25%	100	1.00	250	50	125	10M
SMW3216B222ATE	2200 \pm 25%	100	1.20	250	50	125	10M

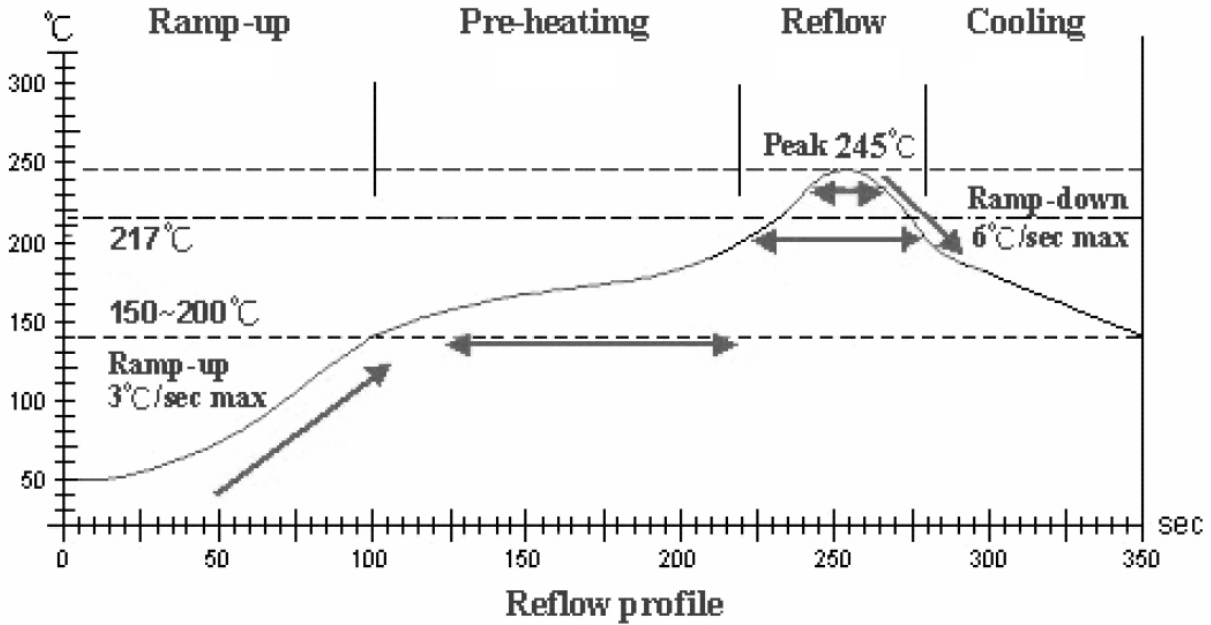
◆ Specifications

Part Number	Common mode Impedance Z(Ω) at 100MHz	DC Resistance (Ω) max.	Rated Current (mA)	Rated Volt. (Vdc)	Cut-off Frequency (GHz)	IR (Ω) min.
SMW1608H Series						
SMW1608H670BTE	67 \pm 25%	0.40	300	20	6 Typ	10M
SMW1608H900BTE	90 \pm 25%	0.40	300	20	6 Typ	10M
SMW2012H Series						
SMW2012H900DTE	90 \pm 25%	0.35	400	20	3.5 Typ	10M
SMW2012H900DTE	90 \pm 25%	0.35	400	20	6 Typ	10M

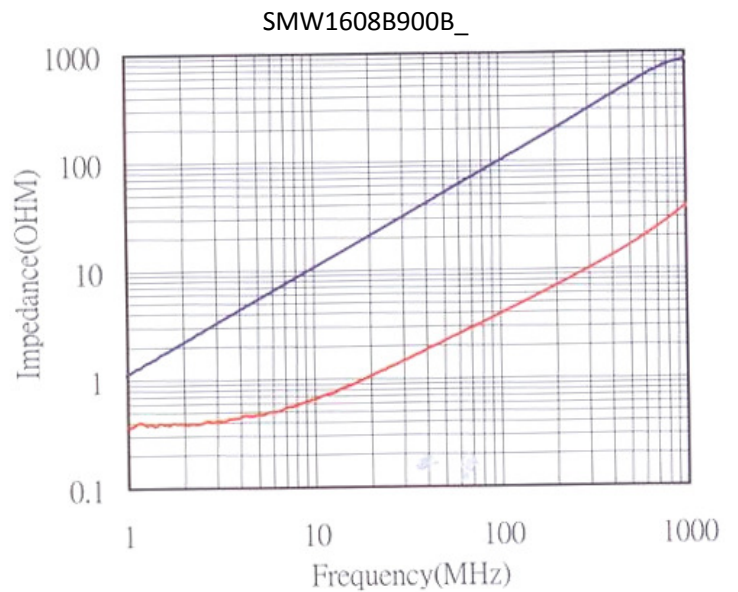
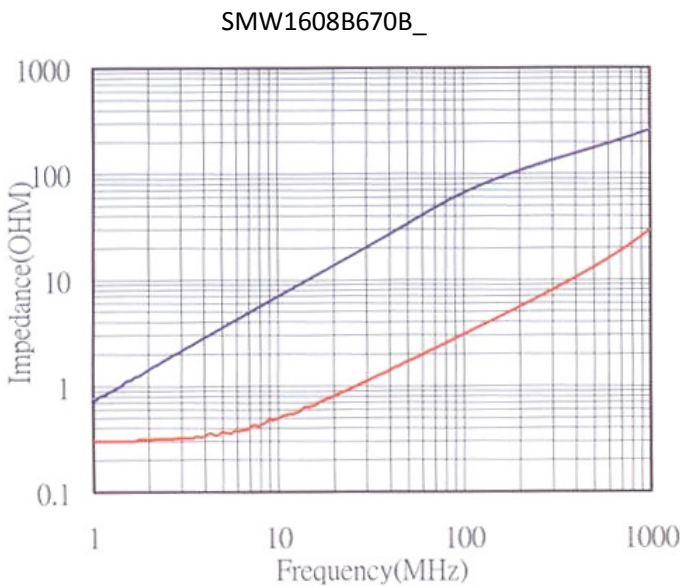
◆ General Technical Data

Operating Temperature Range	-25 $^{\circ}$ C ~ +85 $^{\circ}$ C
Storage Condition	20 $^{\circ}$ C ~ 25 $^{\circ}$ C and 65% RH (For Reference)

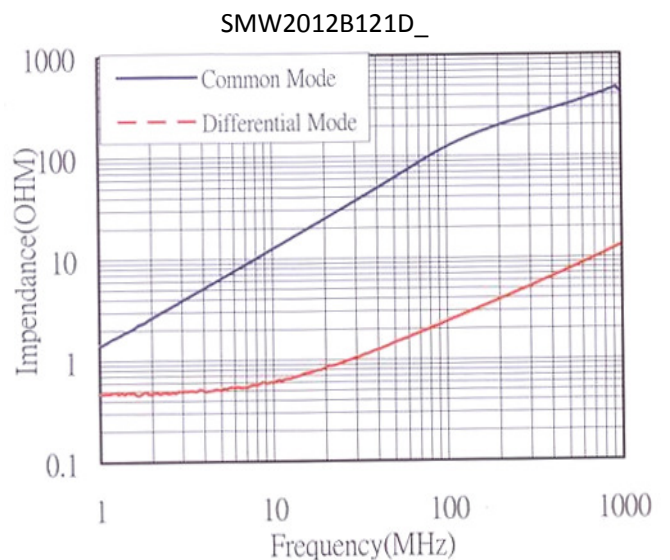
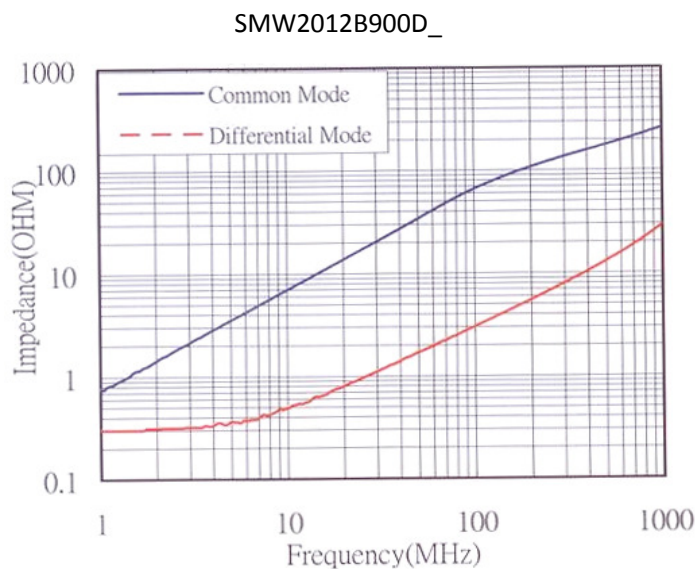
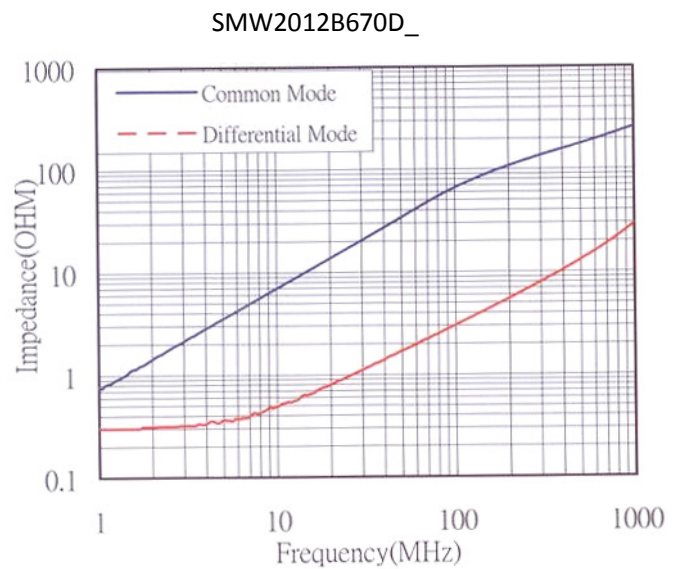
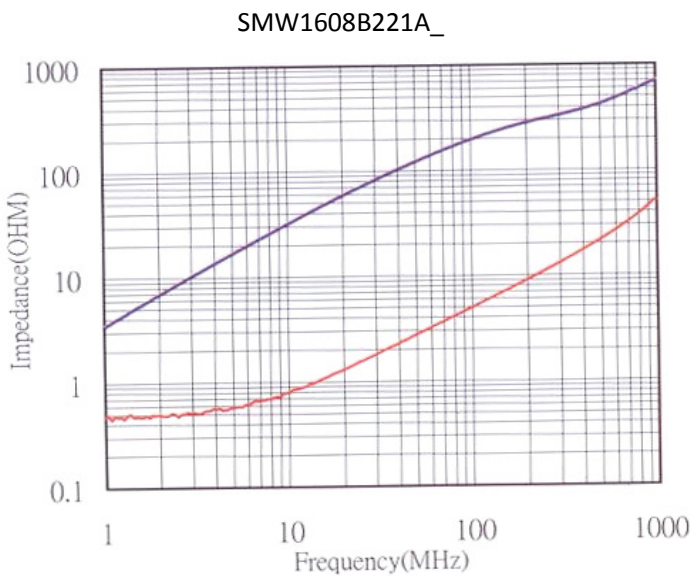
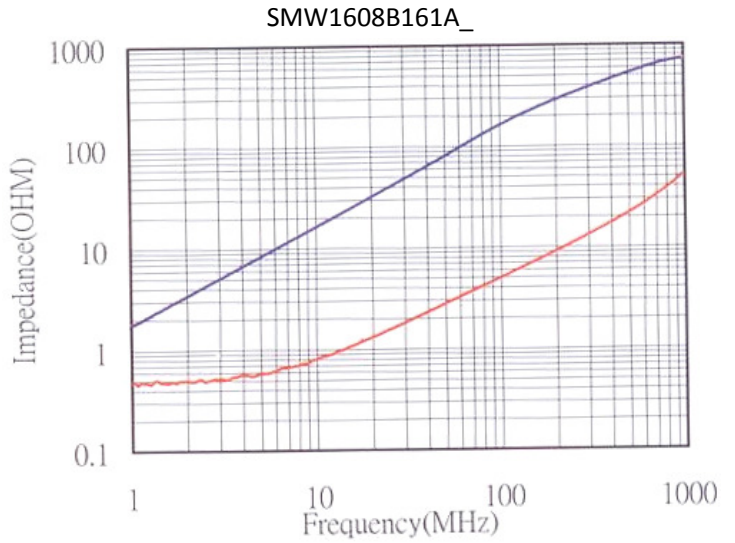
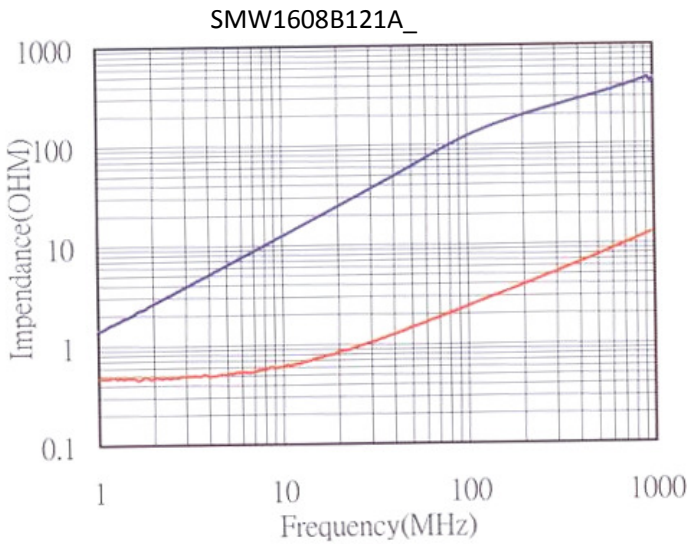
◆ Recommended soldering conditions



◆ Characteristics

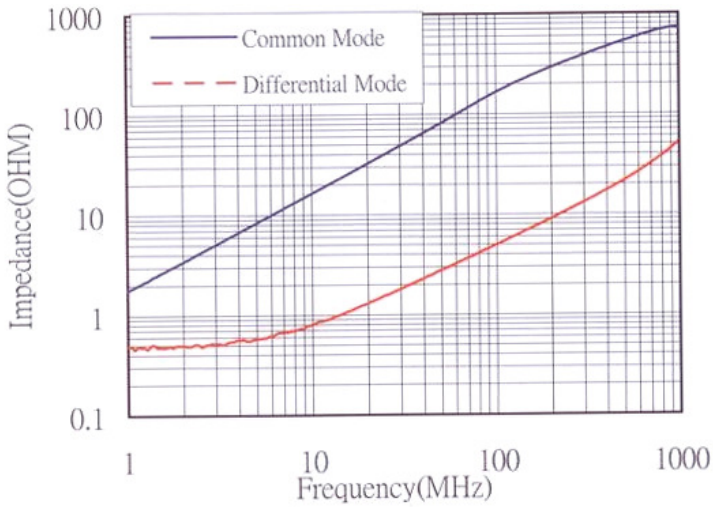


◆ Characteristics

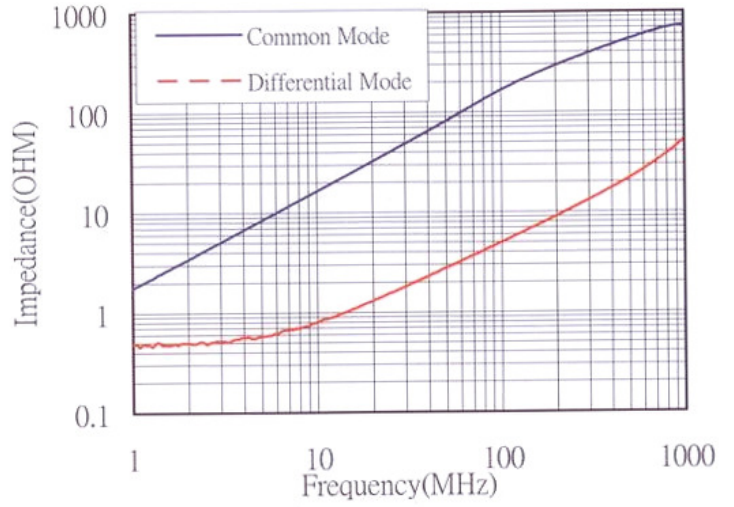


◆ Characteristics

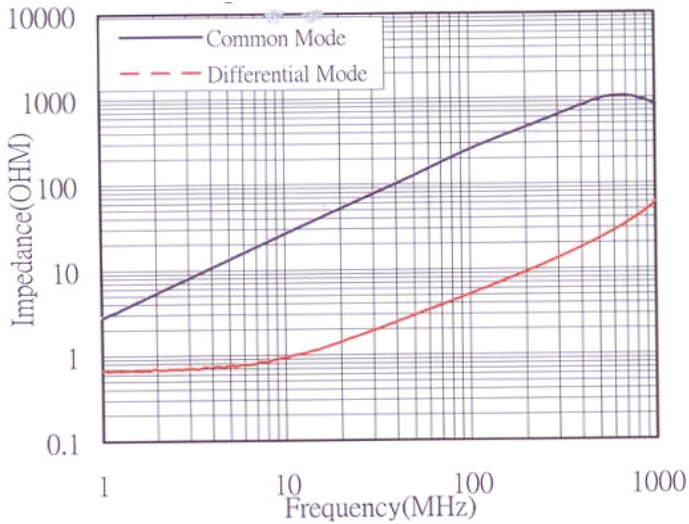
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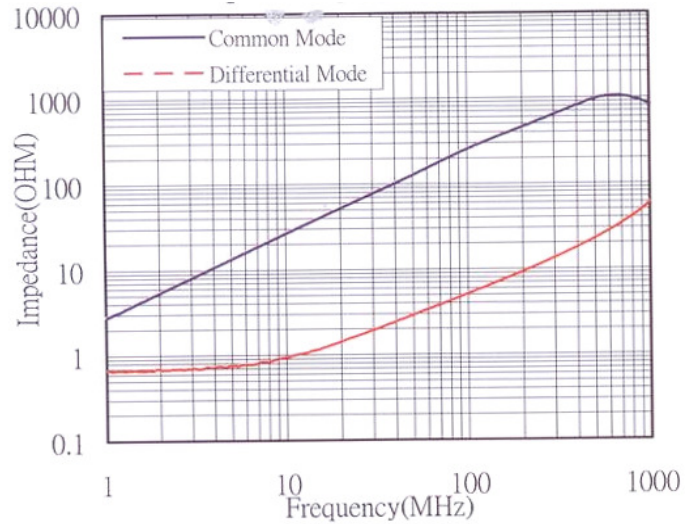
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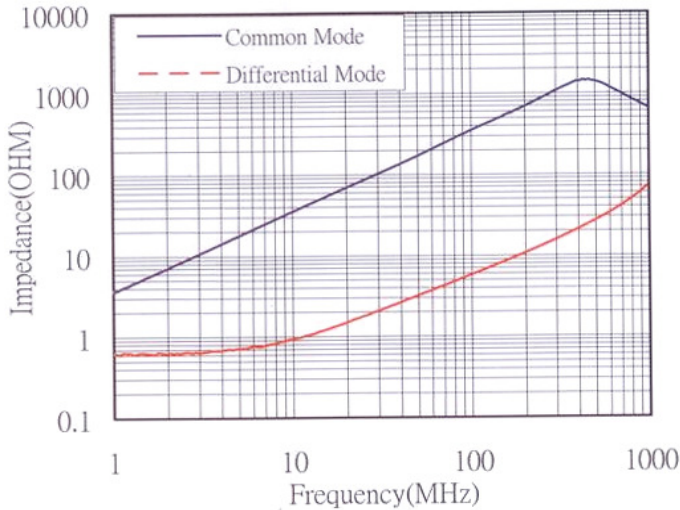
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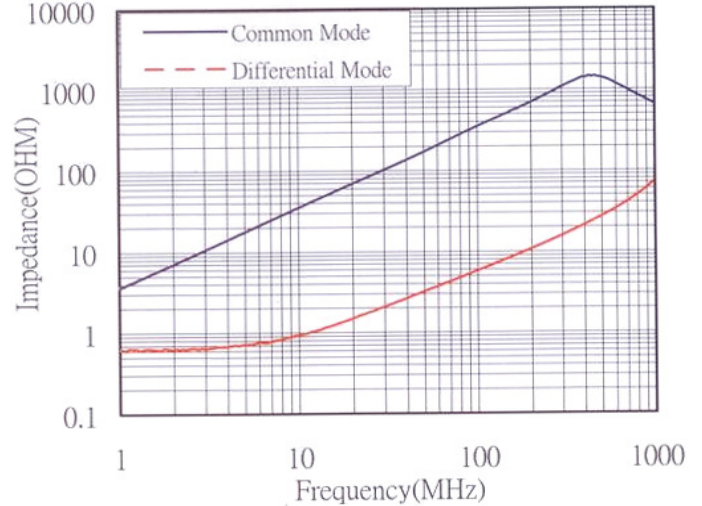
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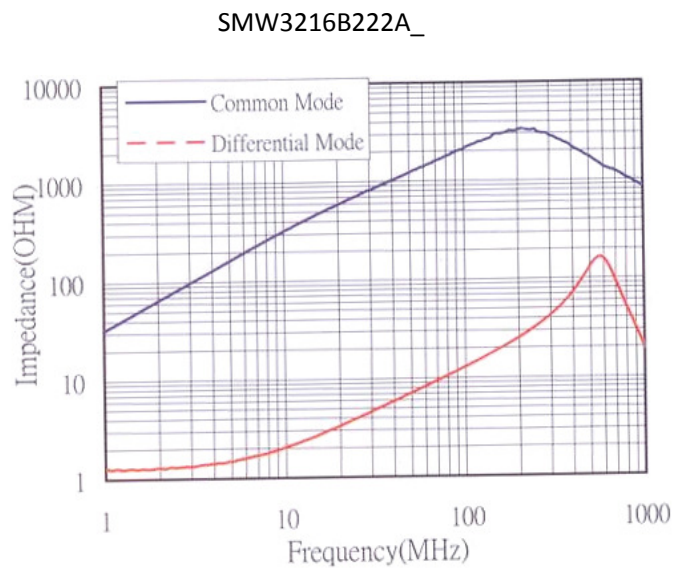
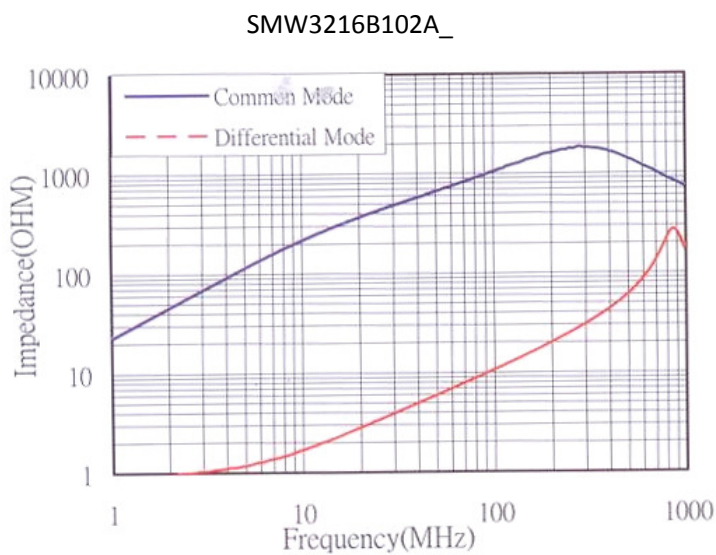
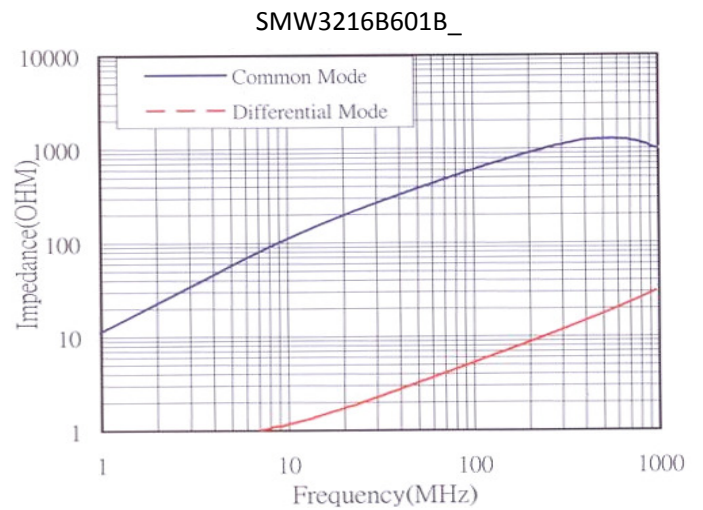
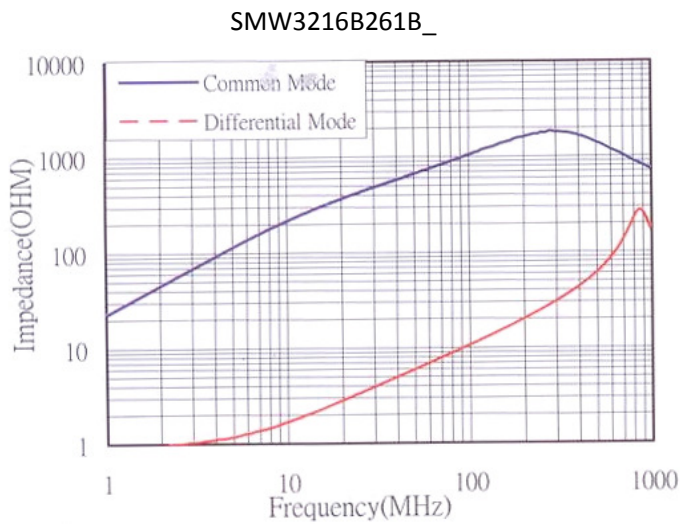
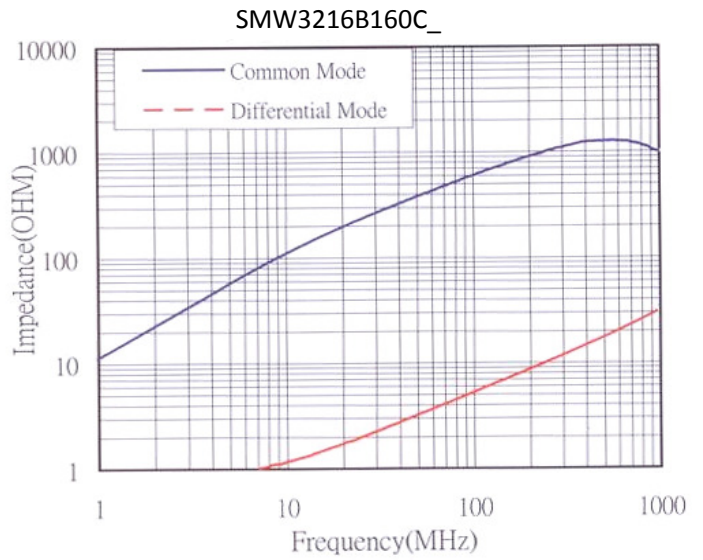
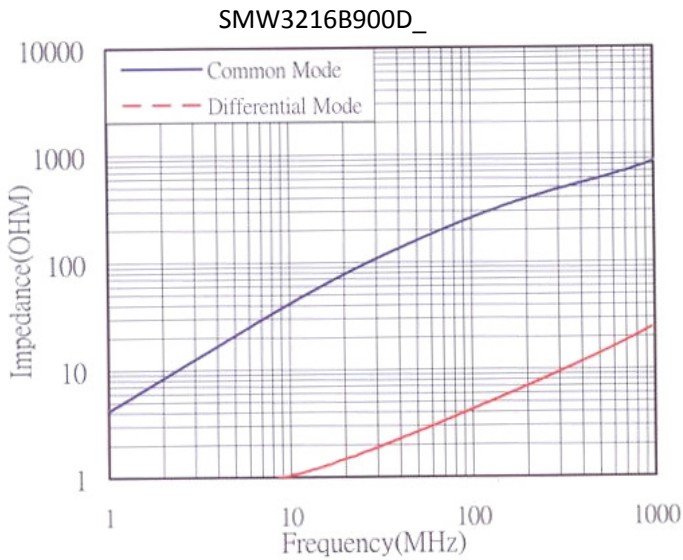
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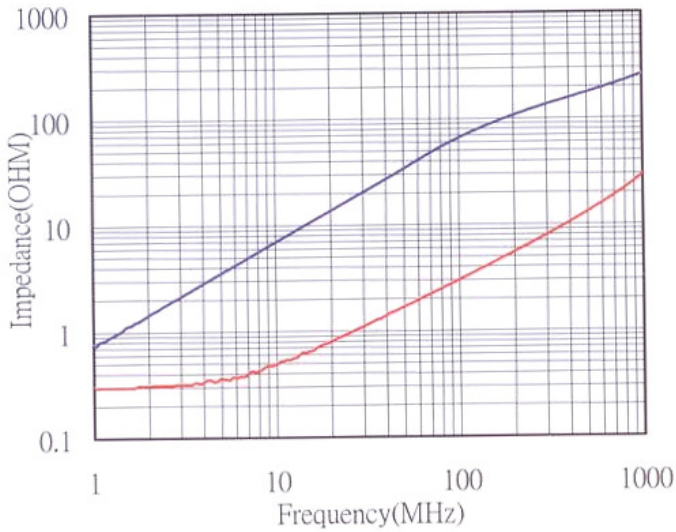


◆ **Characteristics**

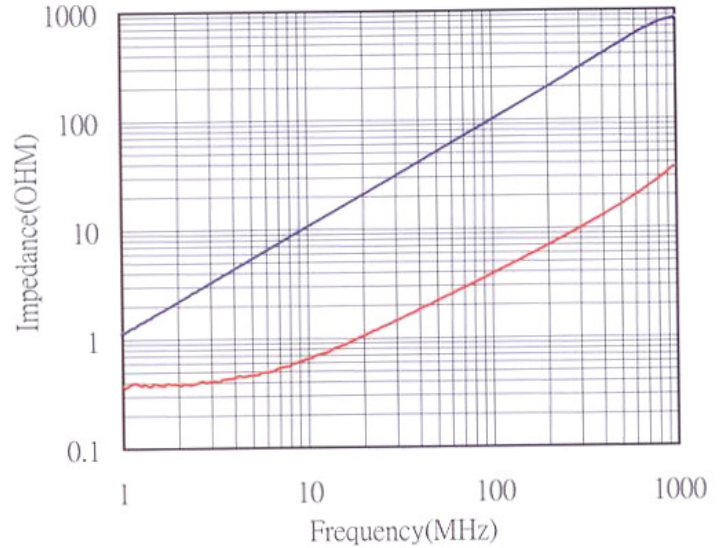


◆ Characteristics

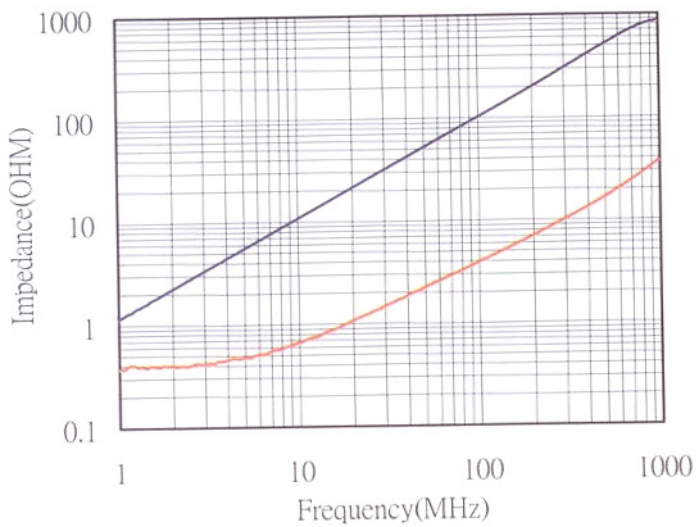
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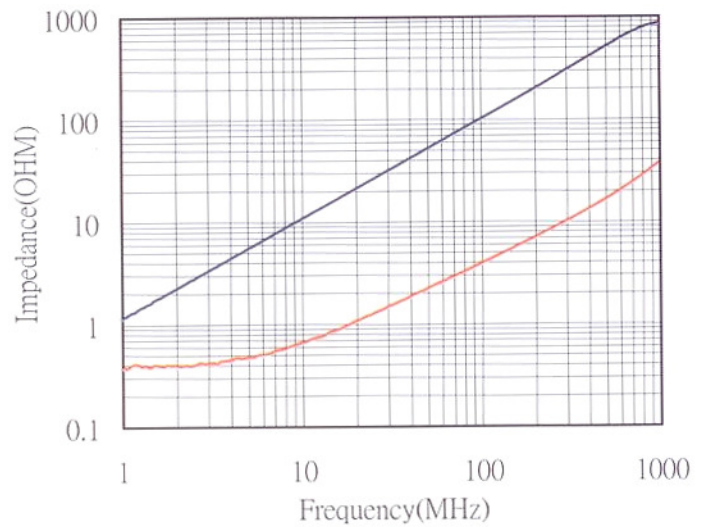
SMW1608H900B_



SMW2012D900D_



SMW2012H900D_



◆ Package

Size EIA (EIA)	1608(0603)	2012 (0805)	3216(1206)
Standard Packing Quantity (pcs / reel)	2,000	2,000	2,000