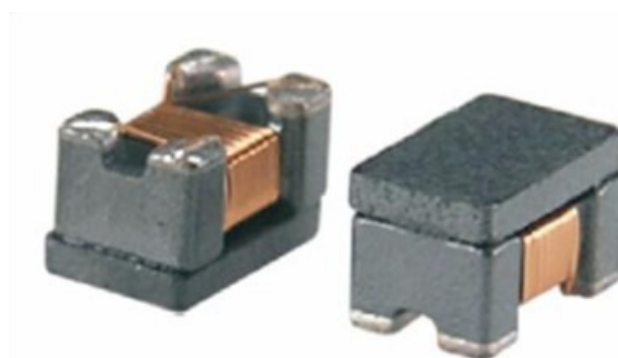


Wire-wound Common Mode Filter



◆ Features

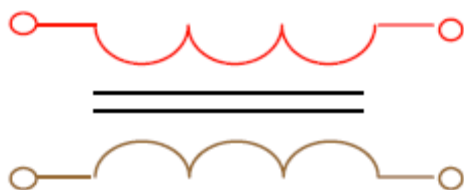
- 1、 Powerful component with composite co-fired material to solve EMI problem for high-speed differential signal transmission line as USB, IEEE1394 and LVDS, without distortion to high speed signal transmission
- 2、 High coupling constant : 0.99
- 3、 Small size and low profile
- 4、 Various common mode 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

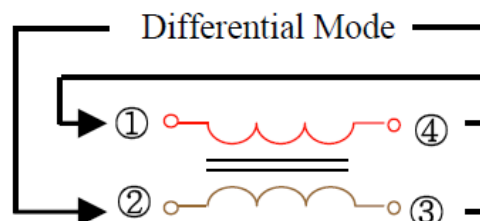
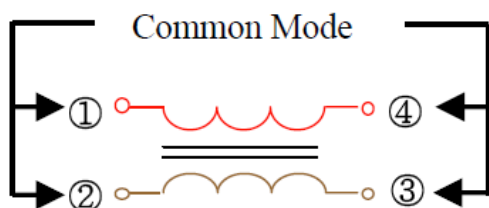
- 1、 Common mode noise suppression of signal lines in high speed and high density digital equipment;
- 2、 USB2.0/3.0 of PC, peripheral equipments, small digital AV equipments, etc.

◆ Equivalent Circuit Diagram



◆ Impedance :

Measured by using Agilent E4991A RF Impedance Analyzer

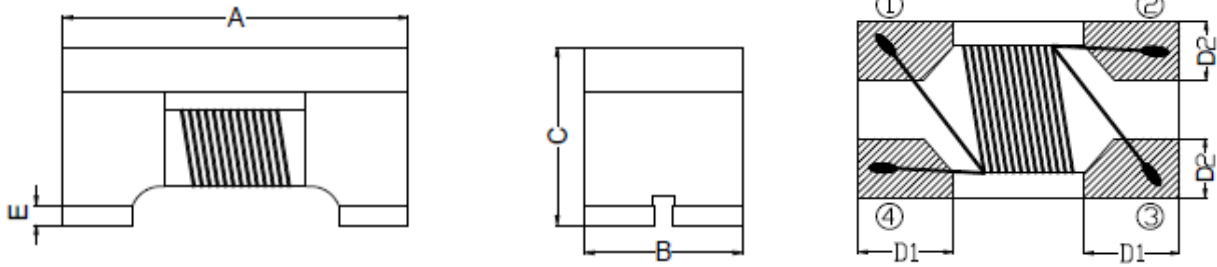


◆ PRODUCT IDENTIFICATION

| 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 maganetic shield(B/D/H)
- (4) Nominal Impedance:900=90Ω;
101=100Ω
- (5) Rated Curren: A=250mA; B=300mA;C=350mA;
D=400mA; H=1000mA;I=1500mA
L=3000mA
- (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 | 1.1 ± 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 |
| SMW4532 | 4.5±0.2 | 3.2±0.2 | 2.8±0.2 | 1.2±0.1 | 1.0±0.1 | 0.19±0.1 |

◆ **Specifications**

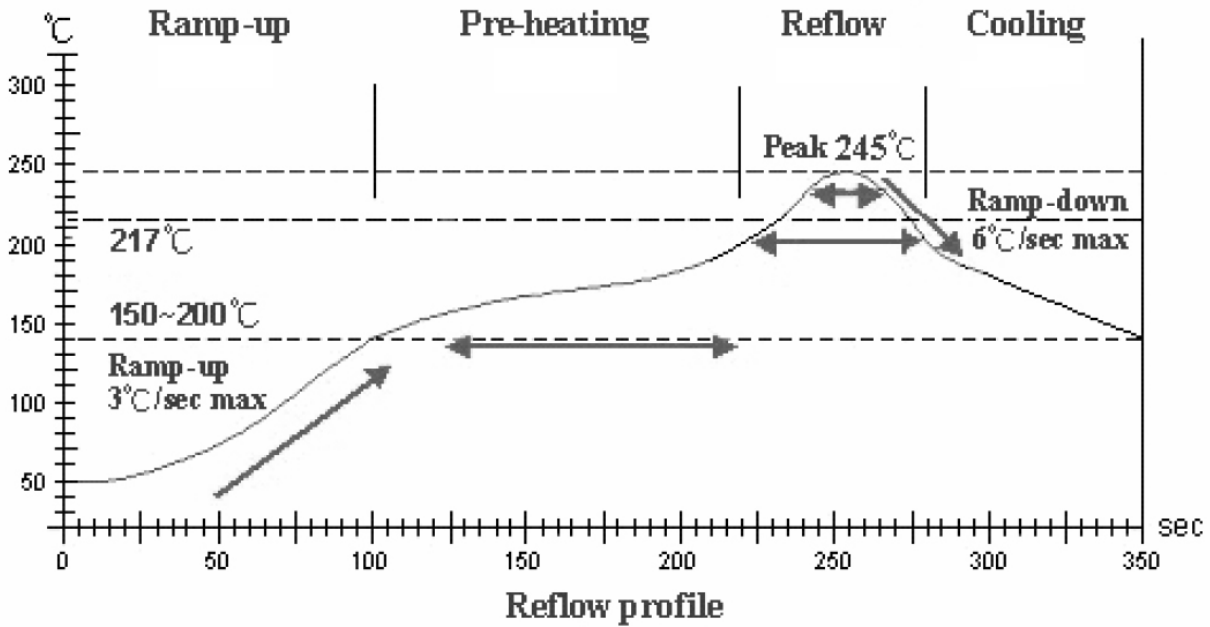
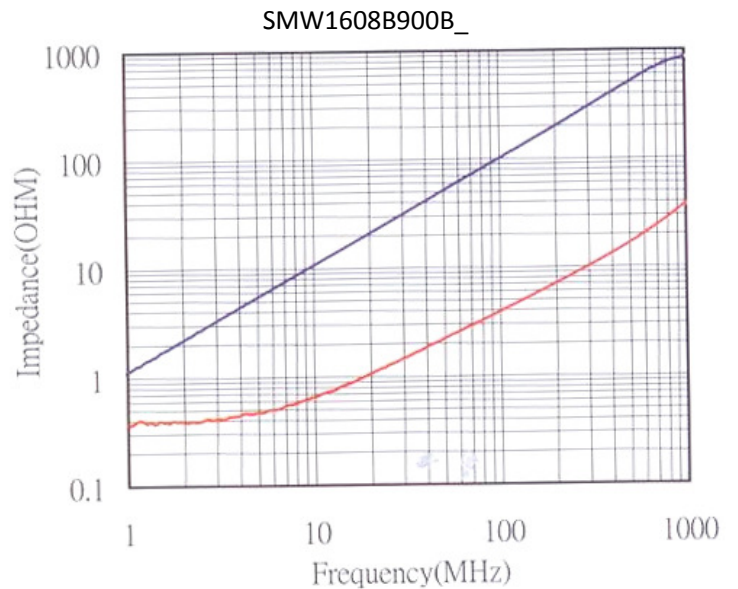
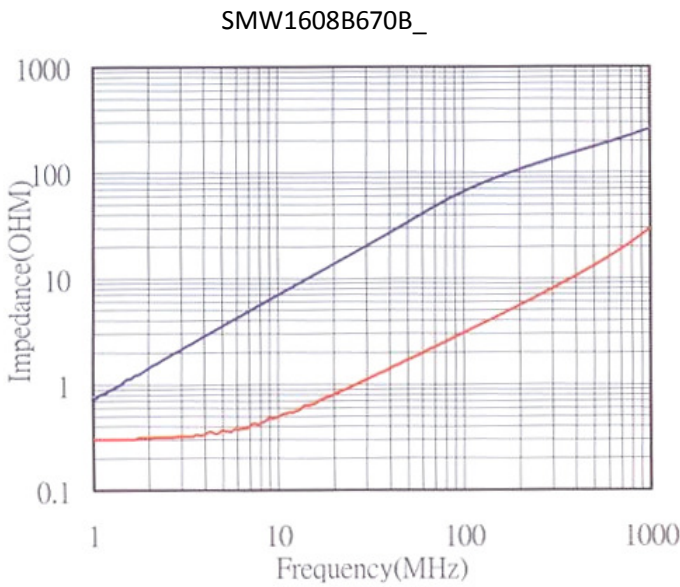
| Part Number | Common mode Impedance Z(Ω) | Test Frequency (MHz) | DC Resistance (Ω) max. | Rated Current (mA) | Rated Volt. (Vdc) | Withstand Volt. (Vdc) | IR (Ω) min. |
|------------------------|----------------------------|----------------------|------------------------|--------------------|-------------------|-----------------------|-------------|
| SMW1608B 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 |
| SMW2012B Series | | | | | | | |
| SMW2012B300DTE | 30 ± 25% | 100 | 0.20 | 450 | 50 | 125 | 10M |
| SMW2012B670DTE | 67 ± 25% | 100 | 0.25 | 400 | 50 | 125 | 10M |
| SMW2012B750DTE | 75 ± 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 |
| SMW2012B201CTE | 200 ± 25% | 100 | 0.35 | 300 | 50 | 125 | 10M |
| SMW2012B221CTE | 220 ± 25% | 100 | 0.35 | 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 |

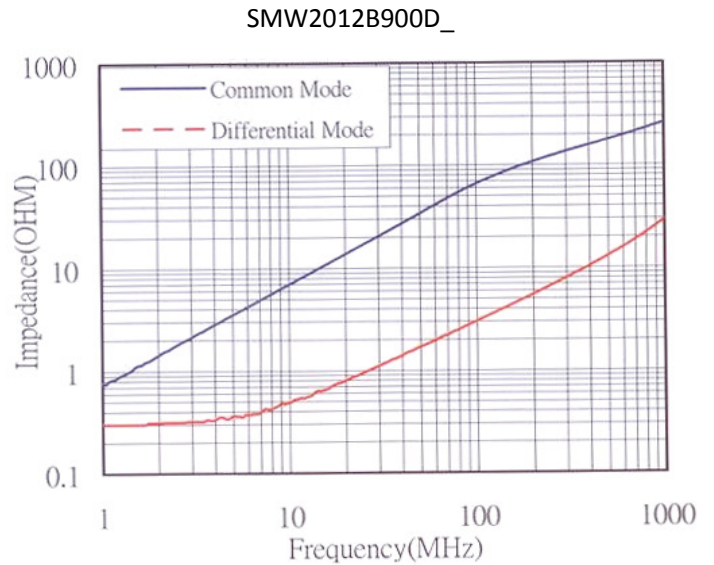
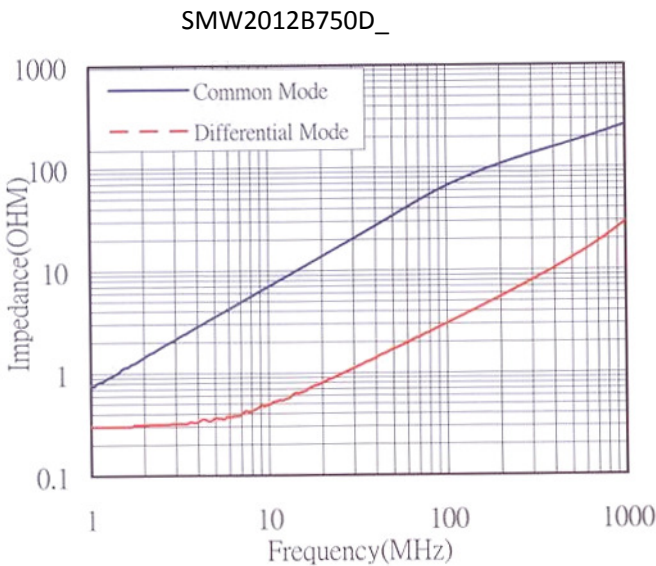
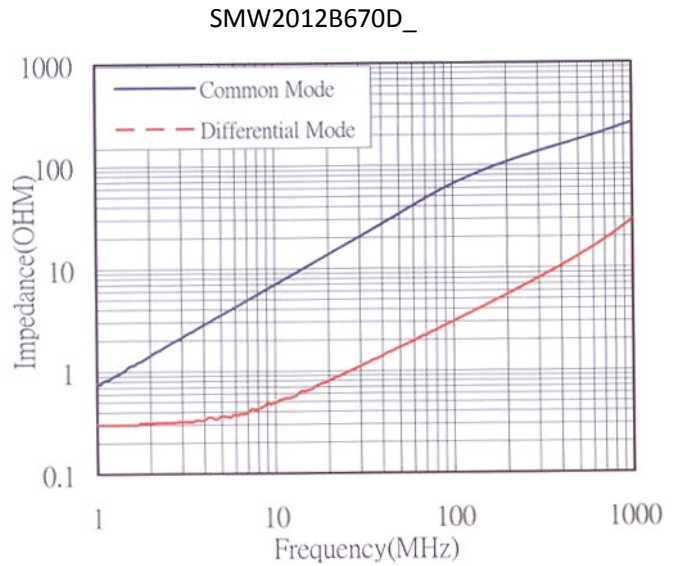
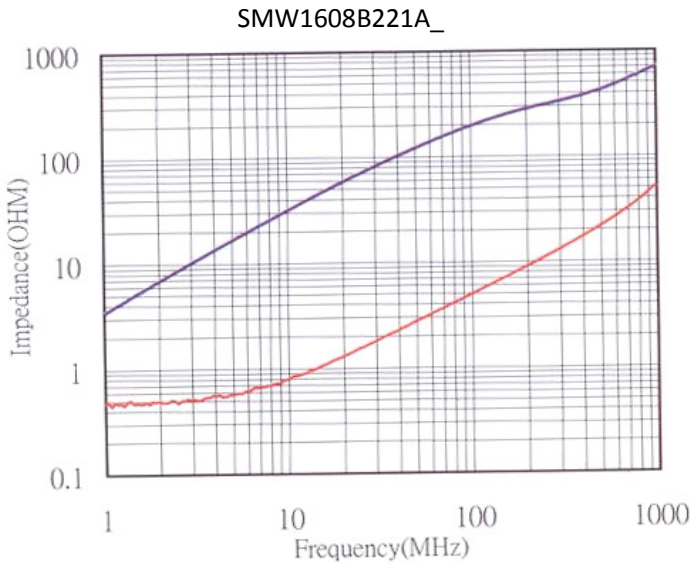
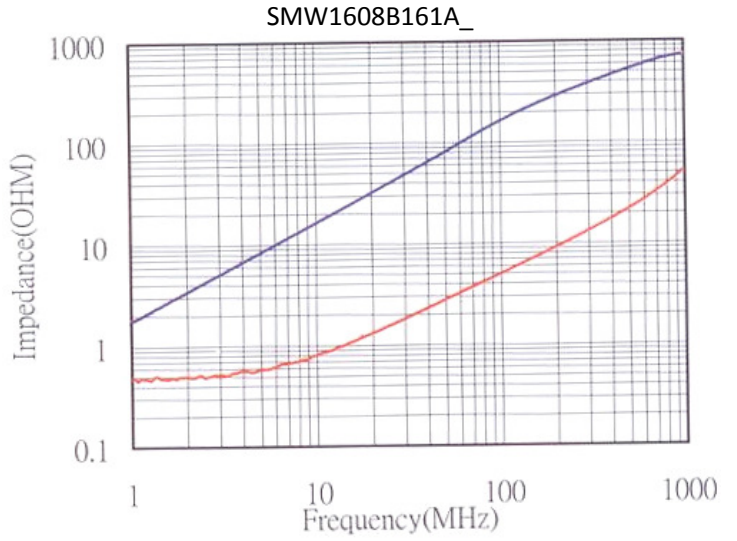
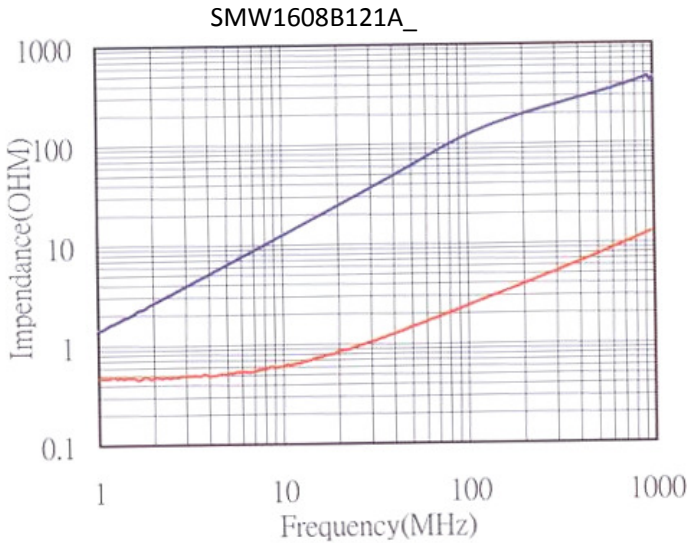
◆ Specifications

| 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. |
|------------------------|-------------------------------------|----------------------|---------------------------------|--------------------|-------------------|-----------------------|----------------------|
| SMW3216B 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 |
| SMW4532B Series | | | | | | | |
| SMW4532B800LTE | 80 \pm 25% | 100 | 0.07 | 3000 | 50 | 125 | 10M |
| SMW4532B900LTE | 90 \pm 25% | 100 | 0.07 | 3000 | 50 | 125 | 10M |
| SMW4532B121LTE | 120 \pm 25% | 100 | 0.07 | 3000 | 50 | 125 | 10M |
| SMW4532B601ITE | 600 \pm 25% | 100 | 0.30 | 1500 | 50 | 125 | 10M |
| SMW4532B102HTE | 1000 \pm 25% | 100 | 0.40 | 1000 | 50 | 125 | 10M |
| SMW4532B142HTE | 1400 \pm 25% | 100 | 0.20 | 1000 | 50 | 125 | 10M |

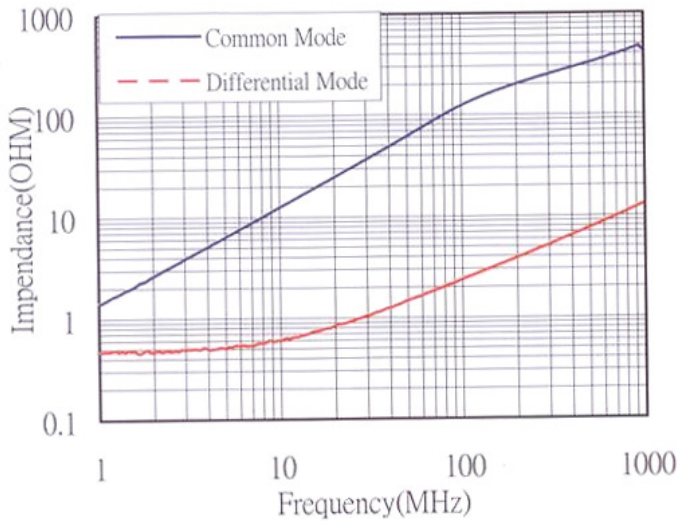
◆ General Technical Data

| | |
|------------------------------------|--|
| Operating Temperature Range | -25°C ~ +85°C |
| Storage Condition | 20°C ~ 25°C and 65% RH (For Reference) |

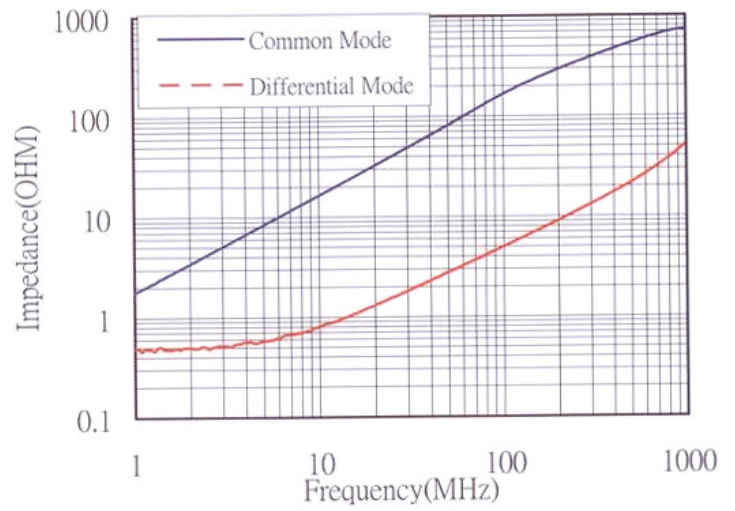
◆ Recommended soldering conditions

◆ Characteristics




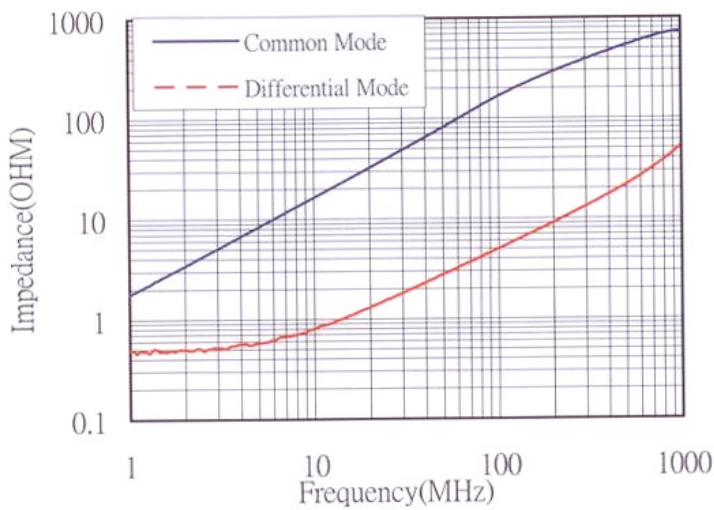
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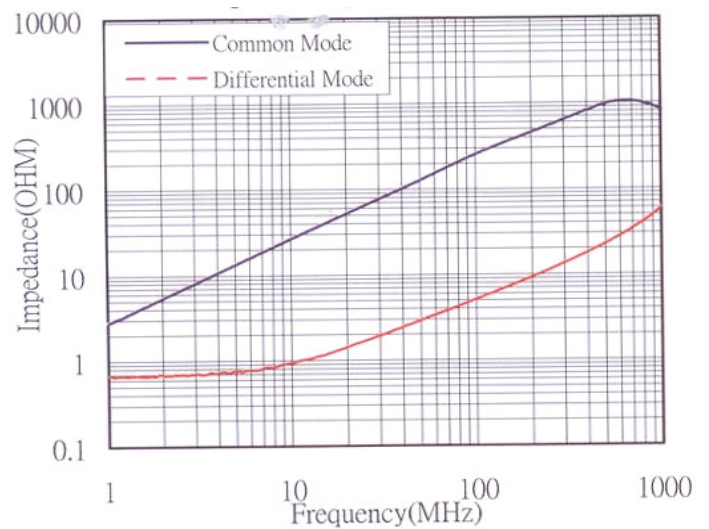
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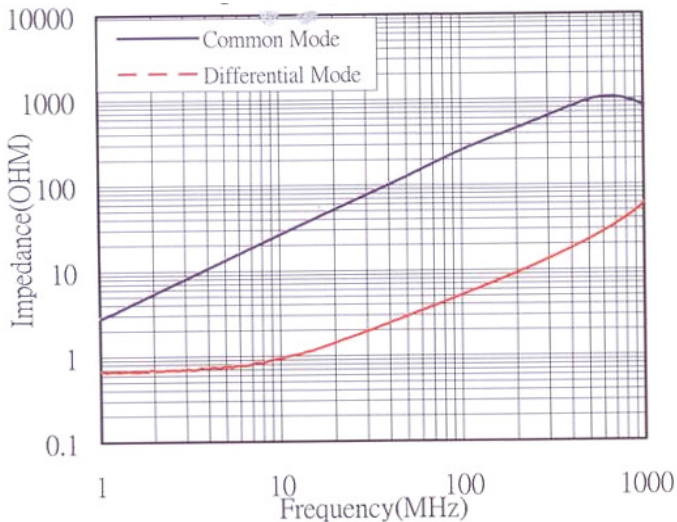
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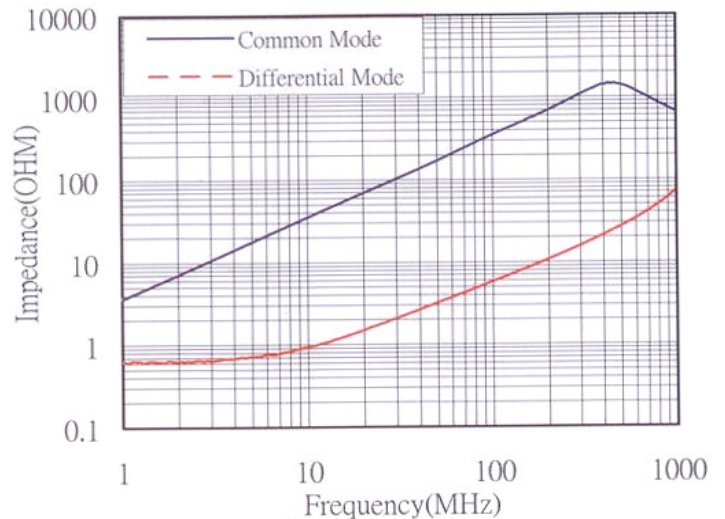
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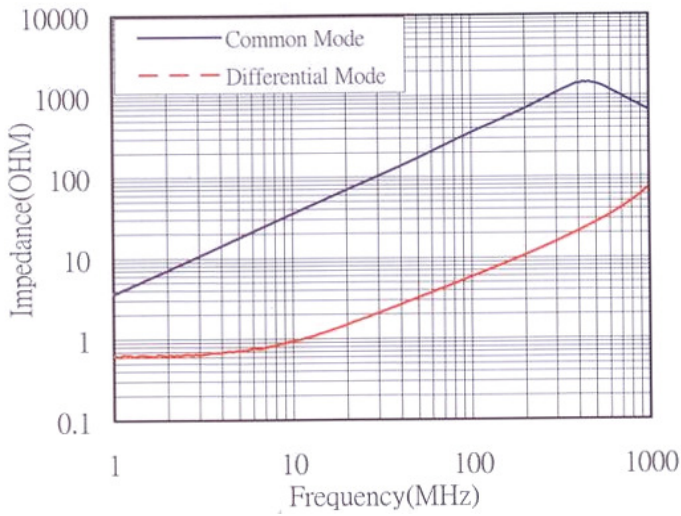
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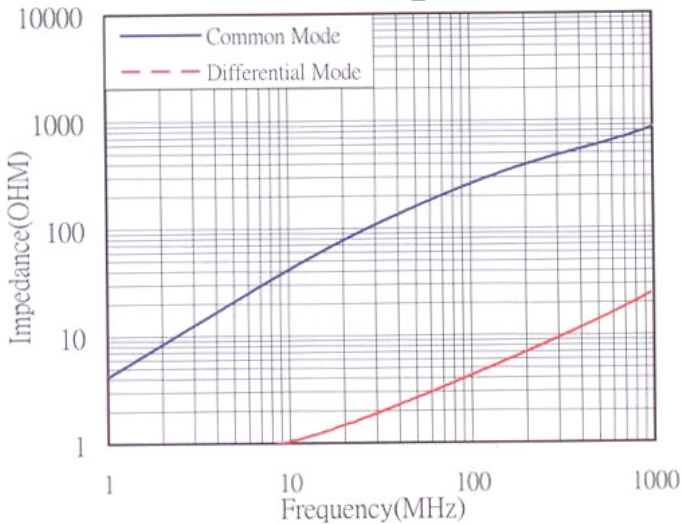
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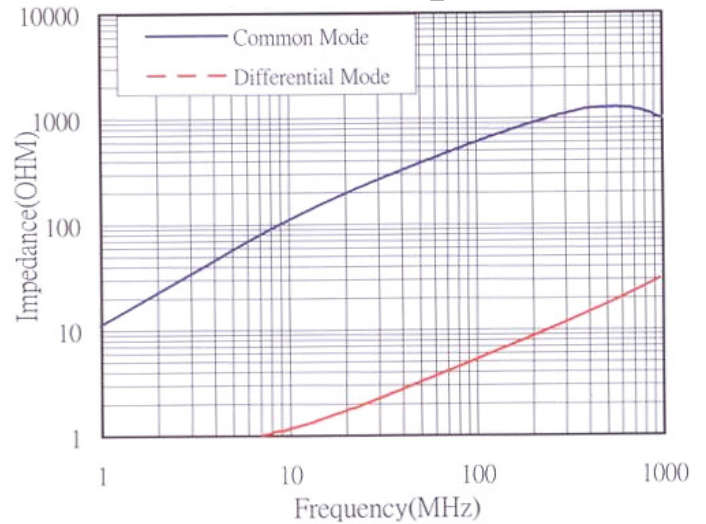
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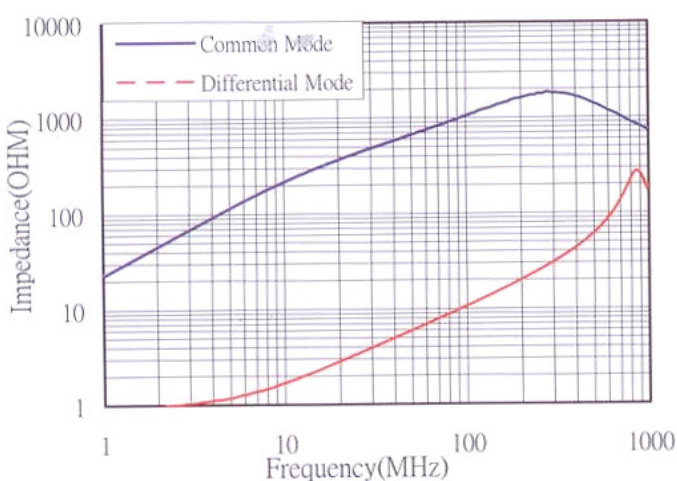
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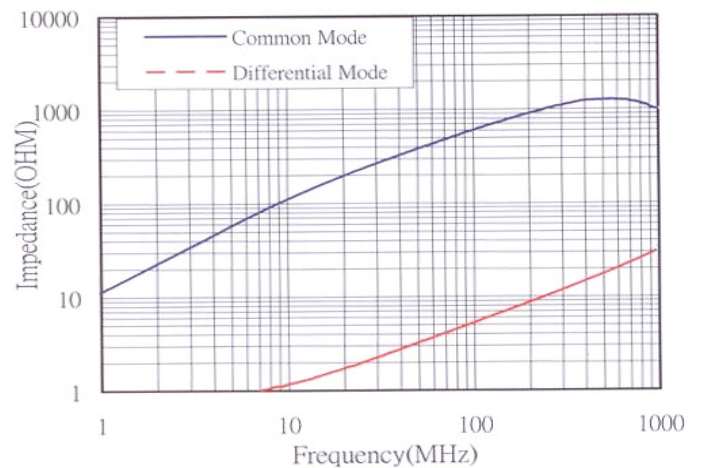
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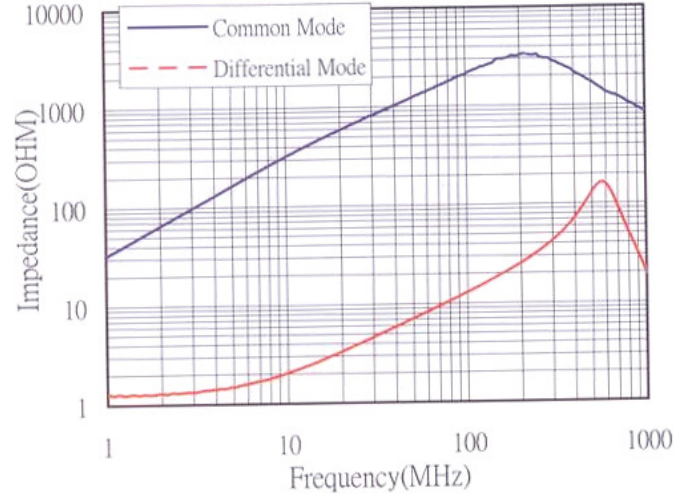
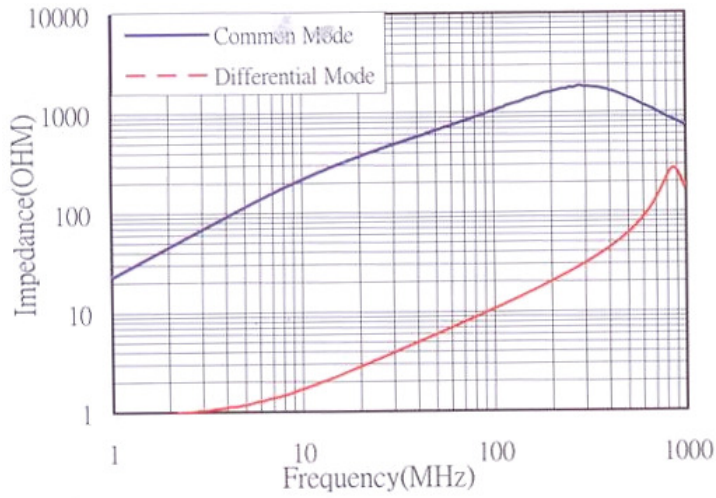


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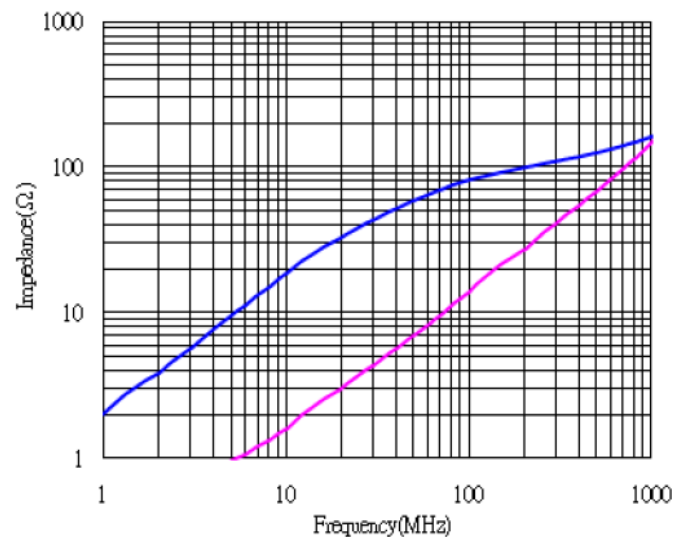
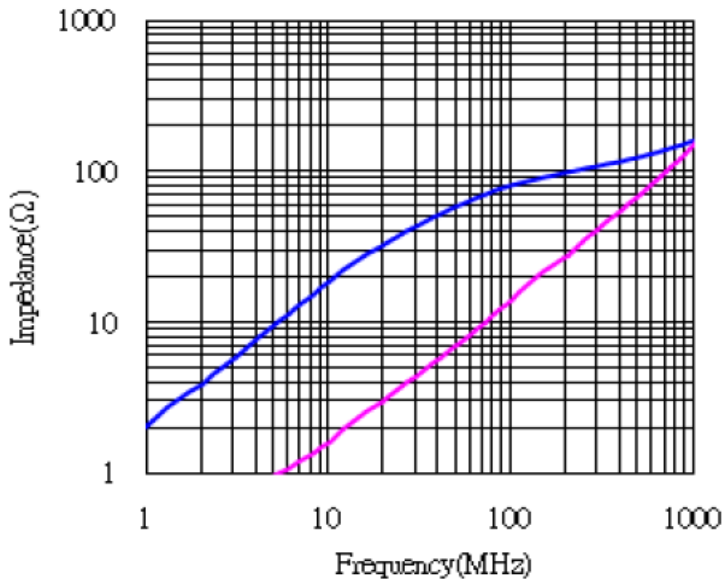
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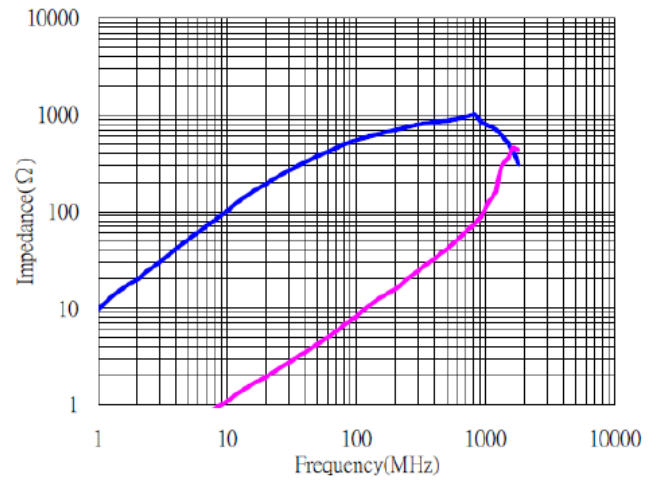
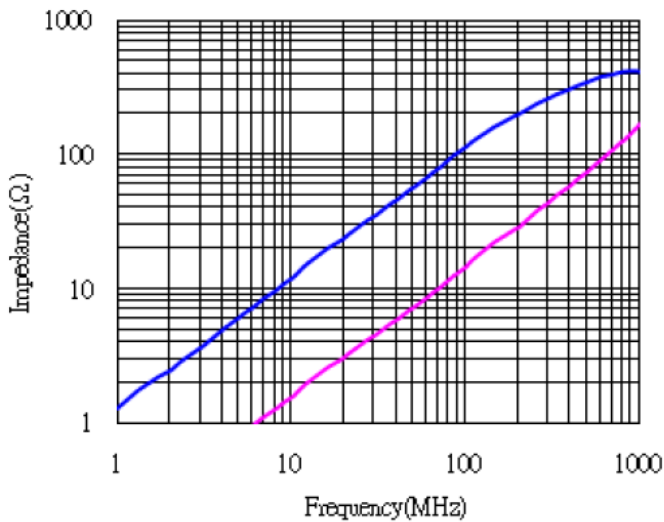
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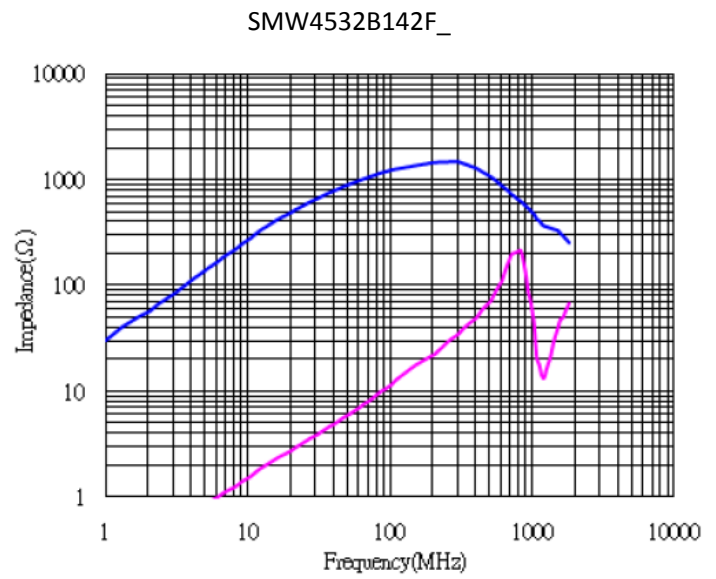
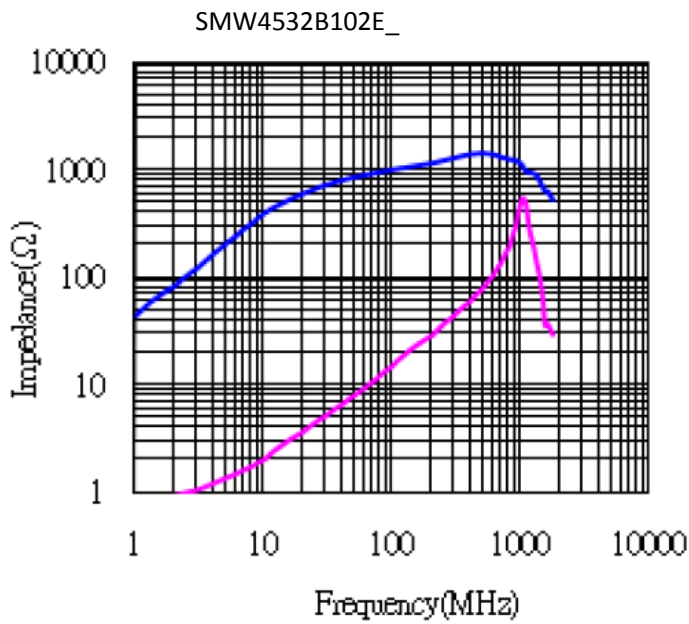
SMW4532B900G_



SMW4532B121G

SMW4532B601G





◆ Package

| Size EIA (EIA) | 1608 (0603) | 2012 (0805) | 3216 (1206) | 4532 (1812) |
|---|----------------|----------------|----------------|----------------|
| Standard Packing Quantity (pcs / reel) | 2,000 | 2,000 | 2,000 | 2,000 |