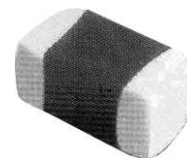


Multilayer Chip Ferrite Bead – SZ Series

Operating Temp. : -55°C~+125°C



FEATURES

- Internal silver printed layers and magnetic shielded structures to minimize crosstalk
- It has sharp impedance characteristics at desirable frequency and does not affect the signal frequency
- Three types material and wide range of impedance values for various applications

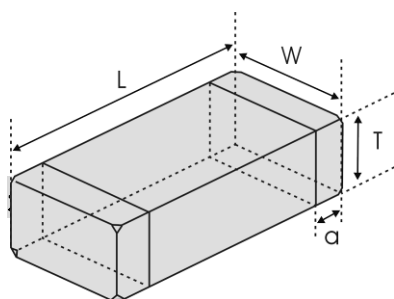
APPLICATIONS

- Noise suppression for high speed signal of electric equipments such as computers and peripheral devices, DVD cameras, LCD TVs, communication equipments, OA equipments, etc.

PRODUCT IDENTIFICATION

| <u>SZ</u> ① | <u>1608</u> ② | <u>G</u> ③ | <u>121</u> ④ | <u>T</u> ⑤ | <u>F</u> ⑥ | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|-------------------------------------|---------------|-----------------|-------------------------------------|--|--------------------------------|--|-------------|---------|-------------|---------|-------------|---------|-------------|----------|--|---------------|---------|---|-------------------|----------------------------|----------------------|-----------------------|------------------------|---|---------|----------------------------|--|-----------------------------------|---|
| ① | ② | ③ | ④ | ⑤ | ⑥ | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1" style="width: 100%;"> <thead> <tr> <th colspan="2">Type</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">SZ</td> <td>Chip Ferrite Bead For High Speed</td> </tr> </tbody> </table> | Type | | SZ | Chip Ferrite Bead For High Speed | <table border="1" style="width: 100%;"> <thead> <tr> <th colspan="2">External Dimensions (L×W) (mm)</th> </tr> </thead> <tbody> <tr> <td>0603 [0201]</td> <td>0.6×0.3</td> </tr> <tr> <td>1005 [0402]</td> <td>1.0×0.5</td> </tr> <tr> <td>1608 [0603]</td> <td>1.6×0.8</td> </tr> <tr> <td>2012 [0805]</td> <td>2.0×1.25</td> </tr> </tbody> </table> | External Dimensions (L×W) (mm) | | 0603 [0201] | 0.6×0.3 | 1005 [0402] | 1.0×0.5 | 1608 [0603] | 1.6×0.8 | 2012 [0805] | 2.0×1.25 | <table border="1" style="width: 100%;"> <thead> <tr> <th>Material Code</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">F, G, K</td> </tr> </tbody> </table> | Material Code | F, G, K | <table border="1" style="width: 100%;"> <thead> <tr> <th>Nominal Impedance</th> </tr> </thead> <tbody> <tr> <td>Example Nominal Value</td> </tr> <tr> <td>300 30Ω</td> </tr> <tr> <td>121 120Ω</td> </tr> <tr> <td>102 1000Ω</td> </tr> </tbody> </table> | Nominal Impedance | Example Nominal Value | 300 30Ω | 121 120Ω | 102 1000Ω | <table border="1" style="width: 100%;"> <thead> <tr> <th>Packing</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">T Tape & Reel</td> </tr> </tbody> </table> | Packing | T Tape & Reel | <table border="1" style="width: 100%;"> <thead> <tr> <th>Hazardous Substance Free Products</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">F</td> </tr> </tbody> </table> | Hazardous Substance Free Products | F |
| Type | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SZ | Chip Ferrite Bead For High Speed | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| External Dimensions (L×W) (mm) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0603 [0201] | 0.6×0.3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1005 [0402] | 1.0×0.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1608 [0603] | 1.6×0.8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2012 [0805] | 2.0×1.25 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Material Code | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| F, G, K | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nominal Impedance | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Example Nominal Value | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 300 30Ω | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 121 120Ω | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 102 1000Ω | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Packing | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| T Tape & Reel | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hazardous Substance Free Products | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| F | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

SHAPE AND DIMENSIONS



Unit: mm [inch]

| Type | L | W | T | a |
|------------------|---|-------------------------|-------------------------|--------------------------|
| SZ0603 [0201] | 0.6±0.05 [.024±.002] | 0.3±0.05 [.012±.002] | 0.3±0.05 [.012±.002] | 0.15±0.05 [.006±.002] |
| SZ1005 [0402] | 1.0±0.15 [.039±.006] | 0.5±0.15 [.020±.006] | 0.5±0.15 [.020±.006] | 0.25±0.1 [.010±.004] |
| SZ1608 [0603] | 1.6±0.15 [.063±.006] | 0.8±0.15 [.031±.006] | 0.8±0.15 [.031±.006] | 0.3±0.2 [.012±.008] |
| SZ2012 [0805] | 2.0 (+0.3, -0.1) [.079 (+.012, -.004)] | 1.25±0.2 [.049±.008] | 0.85±0.2 [.033±.008] | 0.5±0.3 [.020±.012] |

SPECIFICATIONS

SZ0603 TYPE

| Part Number | Impedance | Z Test Frequency | Max. DC Resistance | Max. Rated Current | Thickness |
|--------------|-----------|------------------|--------------------|--------------------|-------------------------|
| Units | Ω | MHz | Ω | mA | mm [inch] |
| Symbol | Z | Freq. | DCR | I _r | T |
| SZ0603G100TF | 10±25% | 100 | 0.25 | 200 | 0.3±0.05 [.012±.002] |
| SZ0603G220TF | 22±25% | 100 | 0.45 | 200 | |
| SZ0603G330TF | 33±25% | 100 | 0.55 | 150 | |
| SZ0603G470TF | 47±25% | 100 | 0.70 | 150 | |
| SZ0603G560TF | 56±25% | 100 | 1.00 | 100 | |

SZ1005 TYPE

| Part Number | Impedance | Z Test Frequency | Max. DC Resistance | Max. Rated Current | Thickness |
|--------------|-----------|------------------|--------------------|--------------------|-------------------------|
| Units | Ω | MHz | Ω | mA | mm [inch] |
| Symbol | Z | Freq. | DCR | I _r | T |
| SZ1005F050TF | 0~10 | 100 | 0.10 | 300 | 0.5±0.15 [.020±.006] |
| SZ1005F100TF | 5~15 | 100 | 0.20 | 300 | |
| SZ1005F330TF | 33±25% | 100 | 0.40 | 300 | |
| SZ1005F470TF | 47±25% | 100 | 0.60 | 200 | |
| SZ1005F560TF | 56±25% | 100 | 0.80 | 200 | |
| SZ1005G050TF | 0~15 | 100 | 0.15 | 600 | |
| SZ1005G300TF | 30±25% | 100 | 0.15 | 600 | |
| SZ1005G750TF | 75±25% | 100 | 0.30 | 600 | |
| SZ1005G121TF | 120±25% | 100 | 0.40 | 400 | |
| SZ1005G221TF | 220±25% | 100 | 0.70 | 200 | |
| SZ1005K750TF | 75±25% | 100 | 0.30 | 600 | |
| SZ1005K121TF | 120±25% | 100 | 0.40 | 400 | |
| SZ1005K221TF | 220±25% | 100 | 0.70 | 200 | |
| SZ1005K301TF | 300±25% | 100 | 0.80 | 200 | |
| SZ1005K421TF | 420±25% | 100 | 1.00 | 150 | |
| SZ1005K601TF | 600±25% | 100 | 1.10 | 100 | |
| SZ1005K102TF | 1000±25% | 100 | 1.20 | 100 | |
| SZ1005K152TF | 1500±25% | 100 | 1.40 | 100 | |
| SZ1005K182TF | 1800±25% | 100 | 1.80 | 50 | |

SZ1608 TYPE

| Part Number | Impedance | Z Test Frequency | Max. DC Resistance | Max. Rated Current | Thickness |
|--------------|-----------|------------------|--------------------|--------------------|-------------------------|
| Units | Ω | MHz | Ω | mA | mm [inch] |
| Symbol | Z | Freq. | DCR | I _r | T |
| SZ1608F050TF | 0~10 | 100 | 0.20 | 500 | 0.8±0.15 [.031±.006] |
| SZ1608F100TF | 5~15 | 100 | 0.25 | 500 | |
| SZ1608F220TF | 22±25% | 100 | 0.35 | 500 | |
| SZ1608F470TF | 47±25% | 100 | 0.55 | 300 | |
| SZ1608F750TF | 75±25% | 100 | 0.70 | 300 | |
| SZ1608F121TF | 120±25% | 100 | 0.90 | 200 | |
| SZ1608G050TF | 0~15 | 100 | 0.10 | 800 | |
| SZ1608G220TF | 22±25% | 100 | 0.20 | 800 | |
| SZ1608G600TF | 60±25% | 100 | 0.30 | 600 | |
| SZ1608G121TF | 120±25% | 100 | 0.45 | 600 | |
| SZ1608G221TF | 220±25% | 100 | 0.55 | 500 | |
| SZ1608G331TF | 330±25% | 100 | 0.70 | 500 | |
| SZ1608G471TF | 470±25% | 100 | 0.80 | 400 | |
| SZ1608G601TF | 600±25% | 100 | 1.10 | 200 | |
| SZ1608G102TF | 1000±25% | 100 | 1.20 | 150 | |
| SZ1608K121TF | 120±25% | 100 | 0.40 | 600 | |

SPECIFICATIONS

SZ1608 TYPE

| Part Number | Impedance | Z Test Frequency | Max. DC Resistance | Max. Rated Current | Thickness |
|--------------|-----------|------------------|--------------------|--------------------|-------------------------|
| Units | Ω | MHz | Ω | mA | mm [inch] |
| Symbol | Z | Freq. | DCR | I _r | T |
| SZ1608K221TF | 220±25% | 100 | 0.45 | 500 | 0.8±0.15 [.031±.006] |
| SZ1608K331TF | 330±25% | 100 | 0.50 | 500 | |
| SZ1608K421TF | 420±25% | 100 | 0.55 | 400 | |
| SZ1608K471TF | 470±25% | 100 | 0.55 | 400 | |
| SZ1608K601TF | 600±25% | 100 | 0.60 | 200 | |
| SZ1608K102TF | 1000±25% | 100 | 0.80 | 200 | |
| SZ1608K152TF | 1500±25% | 100 | 0.80 | 200 | |
| SZ1608K202TF | 2000±25% | 100 | 1.00 | 200 | |
| SZ1608K222TF | 2200±25% | 100 | 1.00 | 200 | |
| SZ1608K252TF | 2500±25% | 100 | 1.20 | 200 | |
| SZ1608K272TF | 2700±25% | 100 | 1.40 | 200 | |

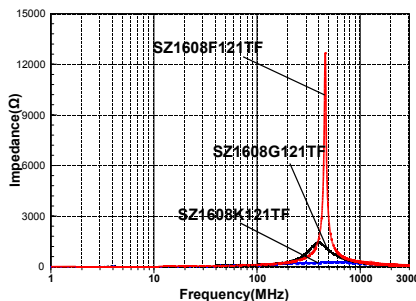
SZ2012 TYPE

| Part Number | Impedance | Z Test Frequency | Max. DC Resistance | Max. Rated Current | Thickness |
|--------------|-----------|------------------|--------------------|--------------------|-------------------------|
| Units | Ω | MHz | Ω | mA | mm [inch] |
| Symbol | Z | Freq. | DCR | I _r | T |
| SZ2012G050TF | 0~15 | 100 | 0.07 | 1000 | 0.85±0.2 [.033±.008] |
| SZ2012G300TF | 30±25% | 100 | 0.10 | 1000 | |
| SZ2012G600TF | 60±25% | 100 | 0.20 | 800 | |
| SZ2012G121TF | 120±25% | 100 | 0.25 | 600 | |
| SZ2012G221TF | 220±25% | 100 | 0.30 | 600 | |
| SZ2012G421TF | 420±25% | 100 | 0.40 | 600 | |
| SZ2012G601TF | 600±25% | 100 | 0.45 | 600 | |
| SZ2012G102TF | 1000±25% | 100 | 0.50 | 500 | |
| SZ2012K121TF | 120±25% | 100 | 0.20 | 600 | |
| SZ2012K221TF | 220±25% | 100 | 0.25 | 600 | |
| SZ2012K301TF | 300±25% | 100 | 0.30 | 600 | |
| SZ2012K601TF | 600±25% | 100 | 0.35 | 600 | |
| SZ2012K102TF | 1000±25% | 100 | 0.40 | 500 | |
| SZ2012K152TF | 1500±25% | 100 | 0.45 | 200 | |
| SZ2012K222TF | 2200±25% | 100 | 0.60 | 200 | |
| SZ2012K252TF | 2500±25% | 100 | 0.70 | 200 | |
| SZ2012K272TF | 2700±25% | 100 | 0.80 | 200 | |

※: Products with other electrical characteristics can be provided upon customer's request. Please contact your local sales.

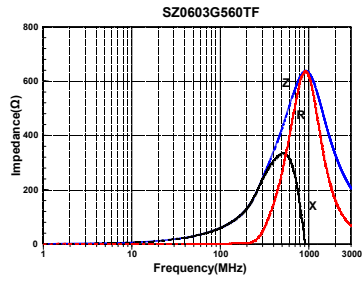
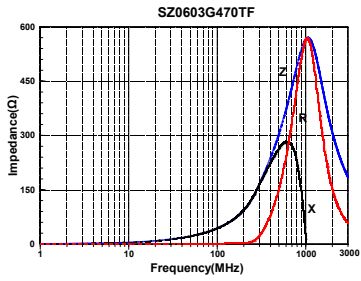
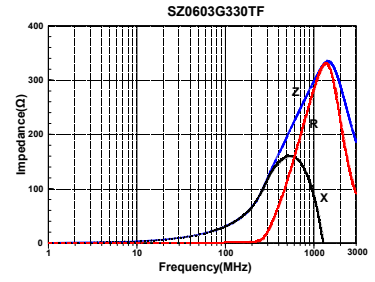
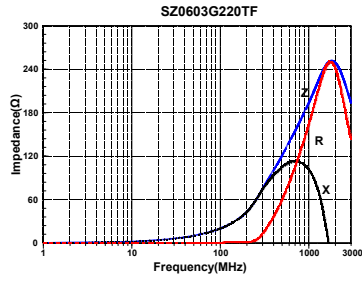
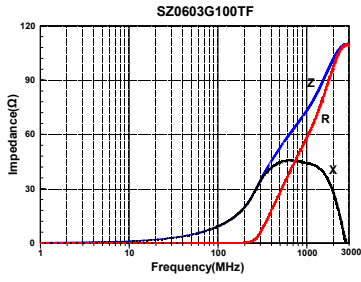
TYPICAL ELECTRICAL CHARACTERISTICS

F, G, K Material Comparison

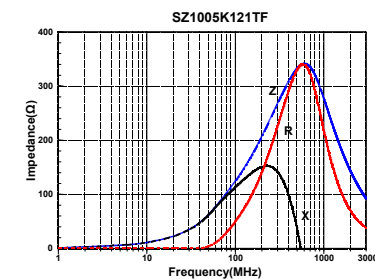
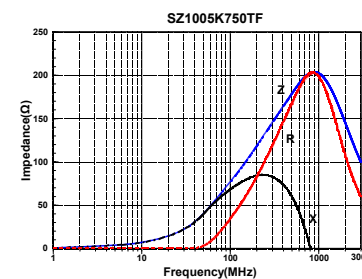
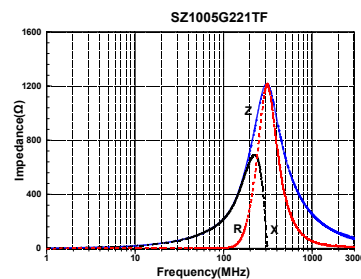
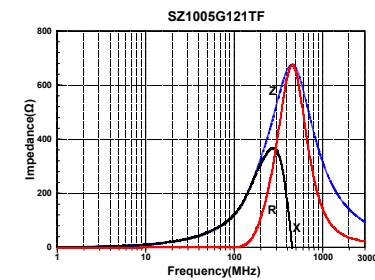
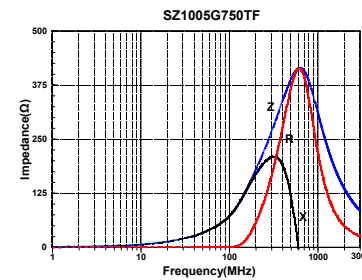
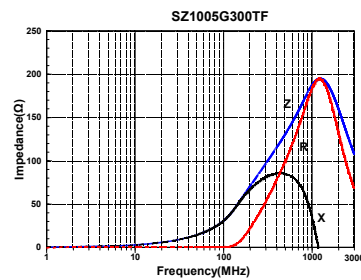
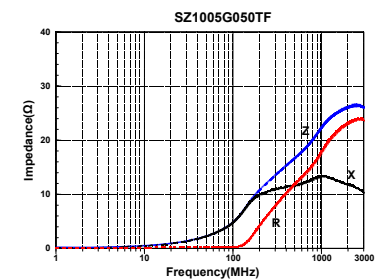
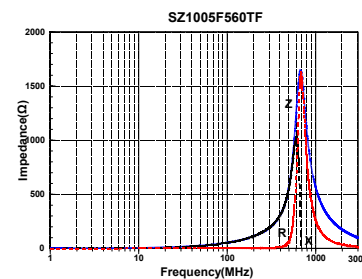
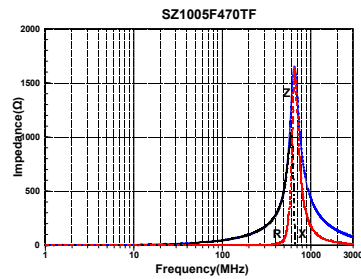
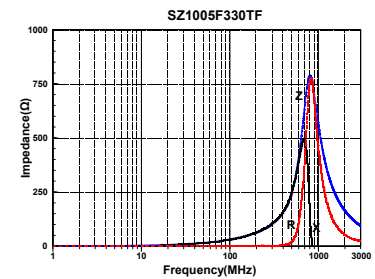
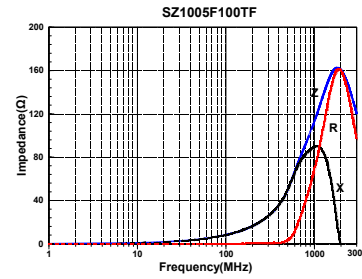
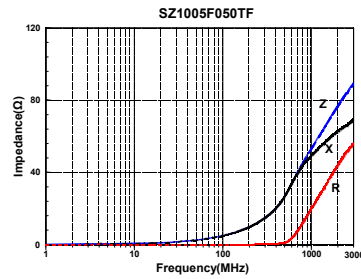


DETAIL ELECTRICAL CHARACTERISTICS

SZ0603 TYPE

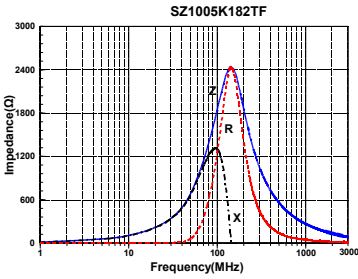
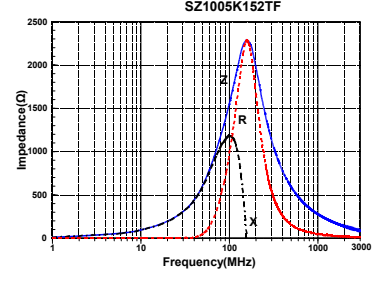
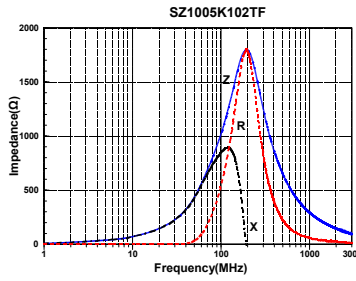
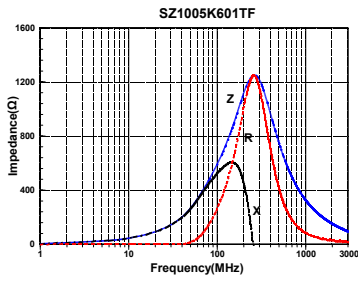
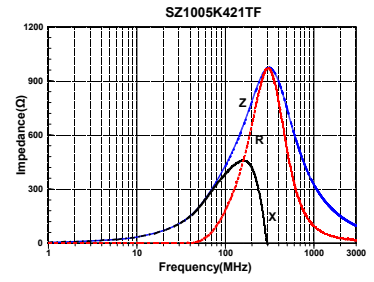
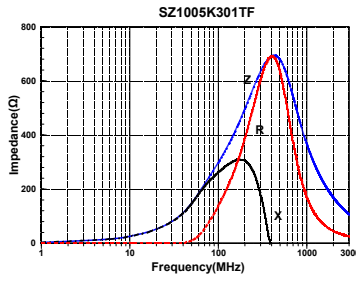
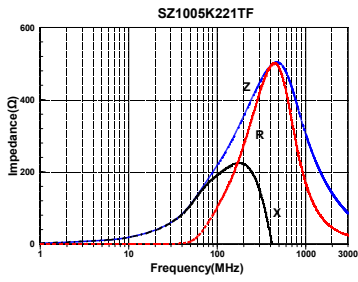


SZ1005 TYPE

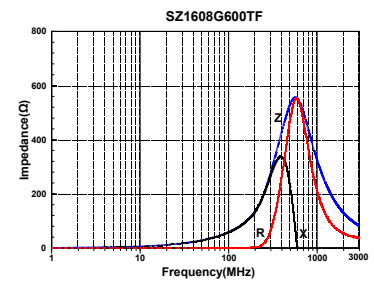
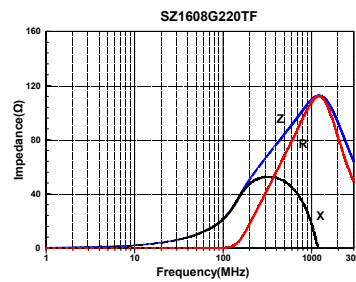
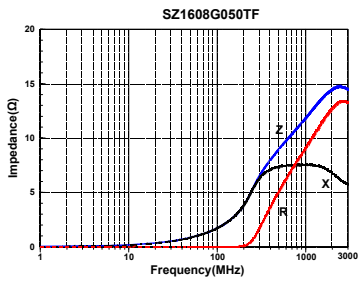
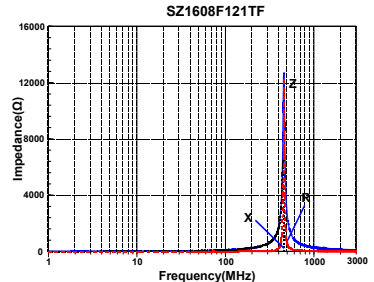
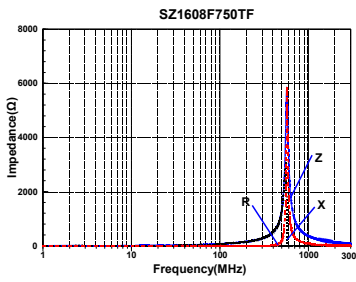
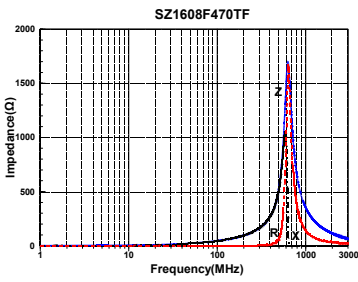
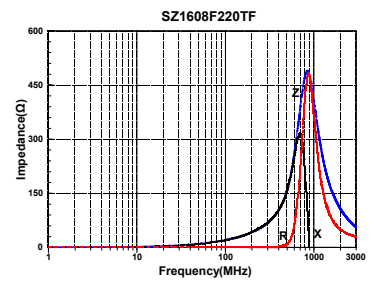
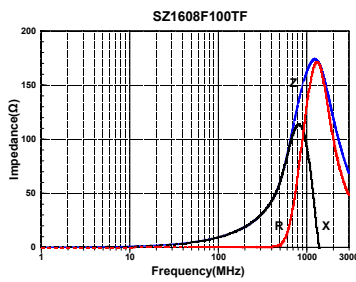
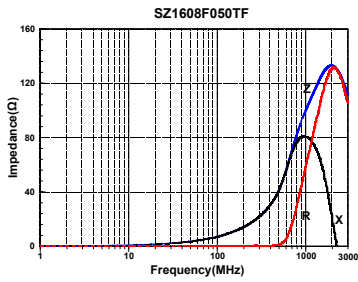


DETAIL ELECTRICAL CHARACTERISTICS

SZ1005 TYPE

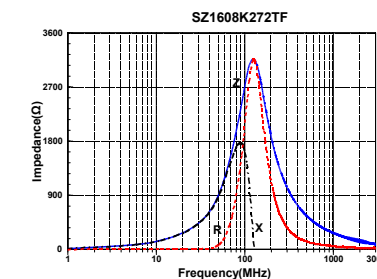
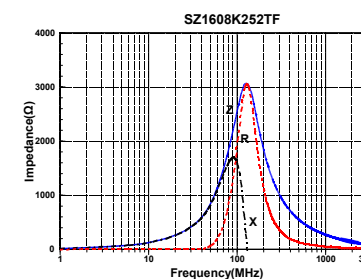
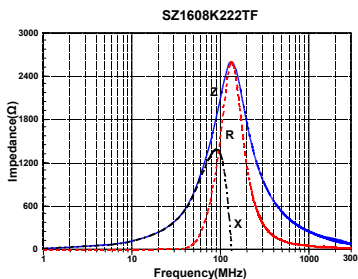
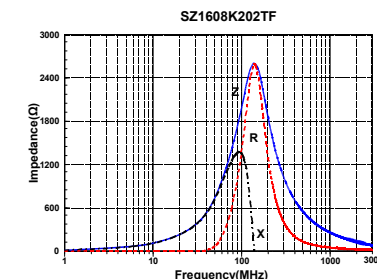
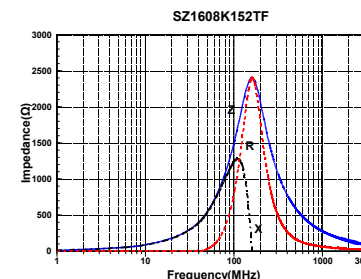
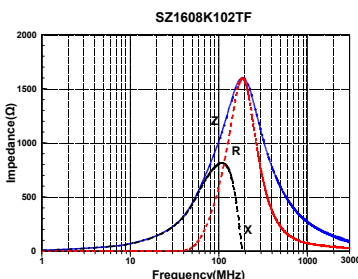
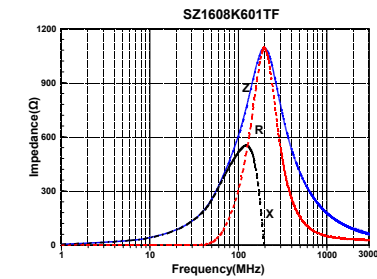
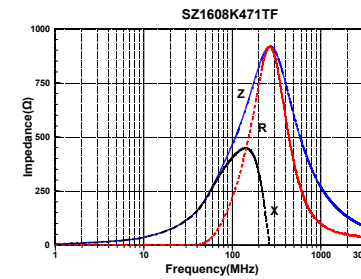
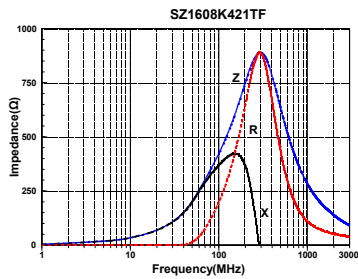
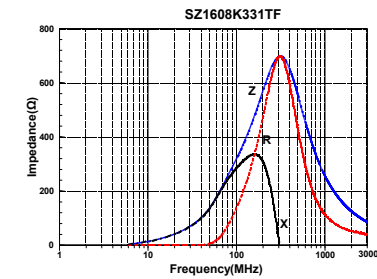
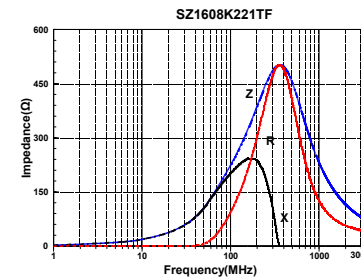
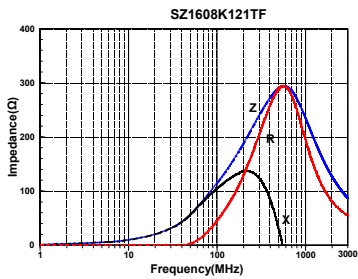
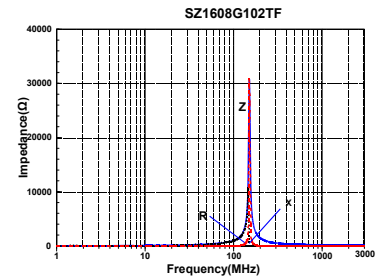
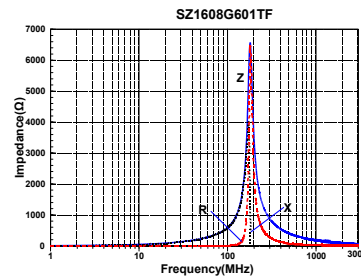
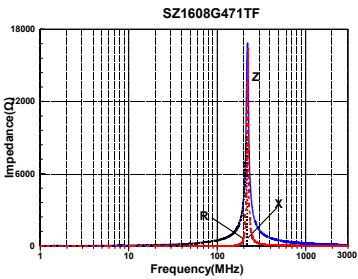
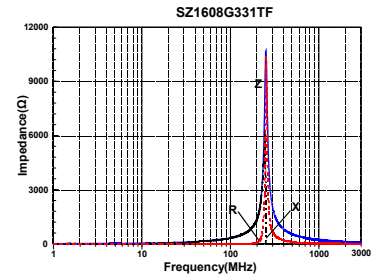
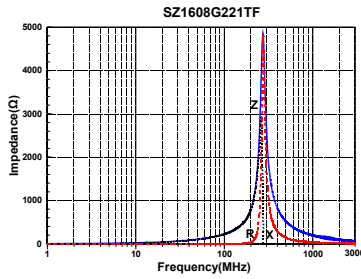
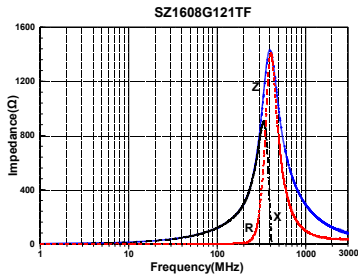


SZ1608 TYPE



DETAIL ELECTRICAL CHARACTERISTICS

SZ1608 TYPE



DETAIL ELECTRICAL CHARACTERISTICS

SZ2012 TYPE

