

# Multilayer Chip Ferrite Bead – UPZ Series

Operating Temp. : -55°C~+125°C



## FEATURES

- Internal silver printed layers and magnetic shielded structures to minimize crosstalk
- Monolithic structure for excellent reliability
- Smaller DC resistance and larger allowable current than PZ series Can be used in a wide range of frequency to suppress EM

## APPLICATIONS

- Noise suppression for power lines or large current signal lines of electric equipments, such as communication equipments, computers, A/V equipments, etc

## PRODUCT IDENTIFICATION

**UPZ**

①

①

|      |   |
|------|---|
| Type |   |
| UPZ  | Chip Ferrite Bead For Ultra Large Current |

**1608**

②

**E**

③

②

|                                |          |
|--------------------------------|----------|
| External Dimensions (LxW) (mm) |          |
| 0603 [0201]                    | 0.6x0.3  |
| 1005 [0402]                    | 1.0x0.5  |
| 1608 [0603]                    | 1.65x0.8 |
| 2012 [0805]                    | 2.0x1.25 |

**221**

④

④

|                   |               |
|-------------------|---------------|
| Nominal Impedance |               |
| Example           | Nominal Value |
| 300               | 30Ω           |
| 221               | 220Ω          |
| 102               | 1000Ω         |

⑤

|               |      |
|---------------|------|
| Rated Current |      |
| 1R5           | 1.5A |
| 2R2           | 2.2A |

**-2R2**

⑤

**T**

⑥

③

|               |  |
|---------------|--|
| Material Code |  |
| G, D, E, U, W |  |

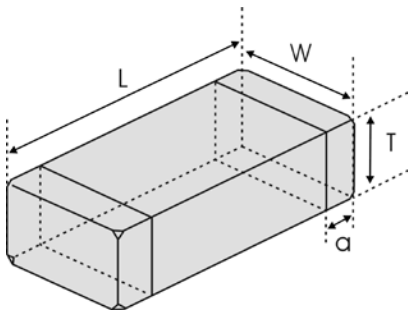
⑥

|         |             |
|---------|-------------|
| Packing |             |
| T       | Tape & Reel |

⑦

|                                   |  |
|-----------------------------------|--|
| Hazardous Substance Free Products |  |
| F                                 |  |

## SHAPE AND DIMENSIONS



Unit: mm [inch]

| Type           | L   | W                       | T                       | a                        |
|----------------|---|-------------------------|-------------------------|--------------------------|
| UPZ0603 [0201] | 0.6±0.05<br>[.024±0.002]                  | 0.3±0.05<br>[.012±.002] | 0.3±0.05<br>[.012±.002] | 0.15±0.05<br>[.006±.002] |
| UPZ1005 [0402] | 1.0±0.15<br>[.039±.006]                   | 0.5±0.15<br>[.020±.006] | 0.5±0.15<br>[.020±.006] | 0.25±0.1<br>[.010±.004]  |
| UPZ1608 [0603] | 1.65±0.15<br>[.065±.006]                  | 0.8±0.15<br>[.031±.006] | 0.8±0.15<br>[.031±.006] | 0.3±0.2<br>[.012±.008]   |
| UPZ2012 [0805] | 2.0 (+0.3, -0.1)<br>[.079 (+.012, -.004)] | 1.25±0.2<br>[.049±.008] | 0.85±0.2<br>[.033±.008] | 0.5±0.3<br>[.020±.012]   |

## SPECIFICATIONS

### UPZ0603 TYPE

| Part Number       | Impedance | Z Test Frequency | Max. DC Resistance | Max. Rated Current | Thickness               |
|-------------------|-----------|------------------|--------------------|--------------------|-------------------------|
| Units             | $\Omega$  | MHz              | m $\Omega$         | mA                 | mm [inch]               |
| Symbol            | Z         | Freq.            | DCR                | I <sub>r</sub>     | T                       |
| UPZ0603U220-1R8TF | 22±25%    | 100              | 40                 | 1800               | 0.3±0.05<br>[.012±.002] |
| UPZ0603U330-1R5TF | 33±25%    | 100              | 55                 | 1500               |                         |
| UPZ0603U470-1R0TF | 47±25%    | 100              | 120                | 1000               |                         |
| UPZ0603U800-1R0TF | 80±25%    | 100              | 130                | 1000               |                         |
| UPZ0603U121-R90TF | 120±25%   | 100              | 160                | 900                |                         |

### UPZ1005 TYPE

| Part Number       | Impedance | Z Test Frequency | Max. DC Resistance | Max. Rated Current | Thickness               |
|-------------------|-----------|------------------|--------------------|--------------------|-------------------------|
| Units             | $\Omega$  | MHz              | m $\Omega$         | mA                 | mm [inch]               |
| Symbol            | Z         | Freq.            | DCR                | I <sub>r</sub>     | T                       |
| UPZ1005D100-2R0TF | 0~30      | 100              | 45                 | 2000               | 0.5±0.15<br>[.020±.006] |
| UPZ1005D300-1R7TF | 30±25%    | 100              | 50                 | 1700               |                         |
| UPZ1005D300-2R2TF | 30±25%    | 100              | 35                 | 2200               |                         |
| UPZ1005D600-1R5TF | 60±25%    | 100              | 75                 | 1500               |                         |
| UPZ1005D800-1R5TF | 80±25%    | 100              | 70                 | 1500               |                         |
| UPZ1005D121-1R3TF | 120±25%   | 100              | 90                 | 1300               |                         |
| UPZ1005D221-R90TF | 220±25%   | 100              | 160                | 900                |                         |

### UPZ1608 TYPE

| Part Number       | Impedance | Z Test Frequency | Max. DC Resistance | Max. Rated Current | Thickness               |
|-------------------|-----------|------------------|--------------------|--------------------|-------------------------|
| Units             | $\Omega$  | MHz              | m $\Omega$         | mA                 | mm [inch]               |
| Symbol            | Z         | Freq.            | DCR                | I <sub>r</sub>     | T                       |
| UPZ1608G300-1R8TF | 30±25%    | 100              | 60                 | 1800               | 0.8±0.15<br>[.031±.006] |
| UPZ1608G600-1R2TF | 60±25%    | 100              | 100                | 1200               |                         |
| UPZ1608G101-1R0TF | 100±25%   | 100              | 150                | 1000               |                         |
| UPZ1608U220-6R0TF | 22±25%    | 100              | 10                 | 6000               |                         |
| UPZ1608U280-6R0TF | 28±25%    | 100              | 10                 | 6000               |                         |
| UPZ1608U700-4R0TF | 70±25%    | 100              | 20                 | 4000               |                         |
| UPZ1608U221-2R2TF | 220±25%   | 100              | 50                 | 2200               |                         |
| UPZ1608U331-1R5TF | 330±25%   | 100              | 70                 | 1500               |                         |
| UPZ1608U391-1R5TF | 390±25%   | 100              | 120                | 1500               |                         |
| UPZ1608U471-1R5TF | 470±25%   | 100              | 120                | 1500               |                         |
| UPZ1608U601-1R3TF | 600±25%   | 100              | 150                | 1300               |                         |
| UPZ1608E300-5R0TF | 30±25%    | 100              | 10                 | 5000               |                         |
| UPZ1608E600-3R5TF | 60±25%    | 100              | 20                 | 3500               |                         |
| UPZ1608E101-3R0TF | 100±25%   | 100              | 30                 | 3000               |                         |
| UPZ1608E181-2R2TF | 180±25%   | 100              | 50                 | 2200               |                         |
| UPZ1608E221-2R2TF | 220±25%   | 100              | 50                 | 2200               |                         |
| UPZ1608E331-1R7TF | 330±25%   | 100              | 80                 | 1700               |                         |
| UPZ1608E601-1R0TF | 600±25%   | 100              | 150                | 1000               |                         |
| UPZ1608W260-6R0TF | 26±25%    | 100              | 7                  | 6000               |                         |

# SPECIFICATIONS

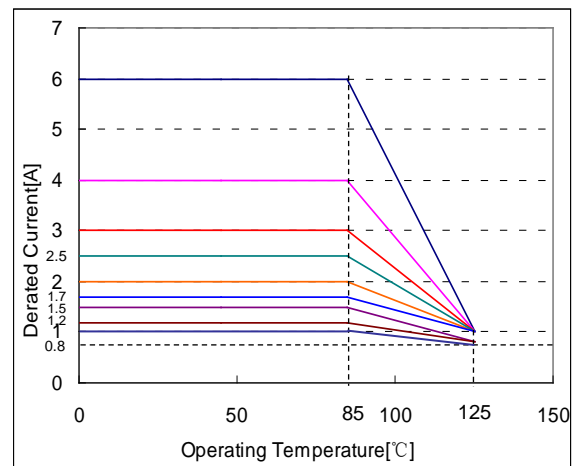
## UPZ2012 TYPE

| Part Number       | Impedance | Z Test Frequency | Max. DC Resistance | Max. Rated Current | Thickness               |
|-------------------|-----------|------------------|--------------------|--------------------|-------------------------|
| Units             | $\Omega$  | MHz              | m $\Omega$         | mA                 | mm [inch]               |
| Symbol            | Z         | Freq.            | DCR                | I <sub>r</sub>     | T                       |
| UPZ2012D220-6R0TF | 22±25%    | 100              | 10                 | 6000               | 0.85±0.2<br>[.033±.008] |
| UPZ2012D800-4R0TF | 80±25%    | 100              | 20                 | 4000               |                         |
| UPZ2012U220-6R0TF | 22±25%    | 100              | 10                 | 6000               |                         |
| UPZ2012U300-6R0TF | 30±25%    | 100              | 10                 | 6000               |                         |
| UPZ2012U600-4R0TF | 60±25%    | 100              | 20                 | 4000               |                         |
| UPZ2012U221-3R0TF | 220±25%   | 100              | 40                 | 3000               |                         |
| UPZ2012E300-6R0TF | 30±25%    | 100              | 10                 | 6000               |                         |
| UPZ2012E121-4R0TF | 120±25%   | 100              | 20                 | 4000               |                         |
| UPZ2012E221-3R0TF | 220±25%   | 100              | 40                 | 3000               |                         |
| UPZ2012E331-2R5TF | 330±25%   | 100              | 50                 | 2500               |                         |
| UPZ2012E601-2R0TF | 600±25%   | 100              | 90                 | 2000               |                         |
| UPZ2012E102-1R5TF | 1000±25%  | 100              | 120                | 1500               |                         |

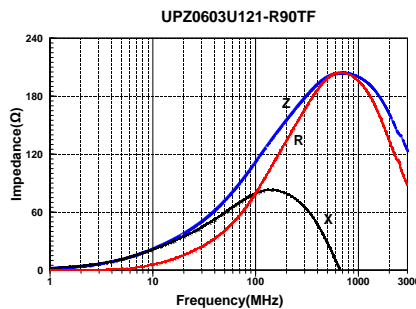
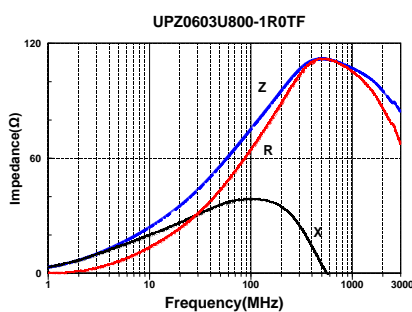
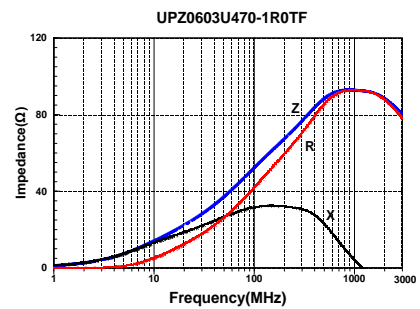
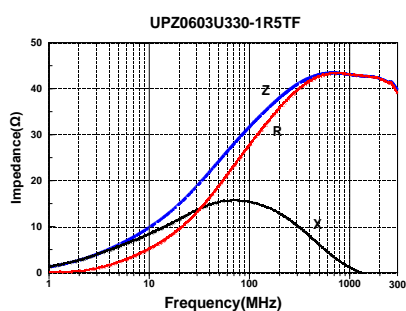
## DETAIL ELECTRICAL CHARACTERISTICS

### Rated Current

When operating temperatures exceed +85°C, derating of current is necessary for chip ferrite beads for which rated current is 1000mA and over. Please apply the derating curve shown in chart according to the operating temperature.

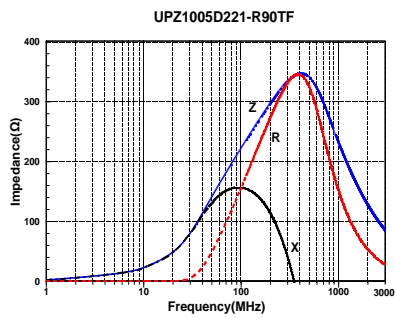
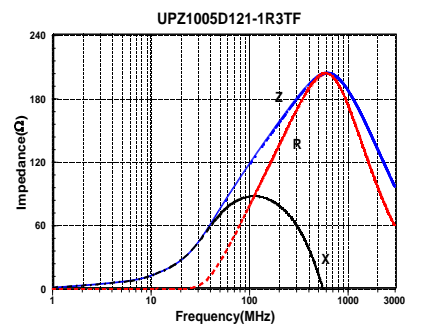


## UPZ0603 TYPE

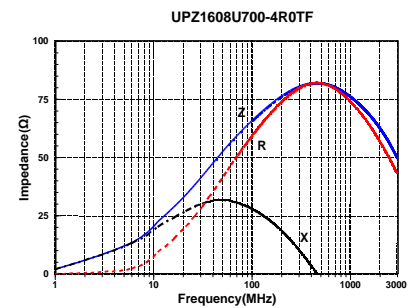
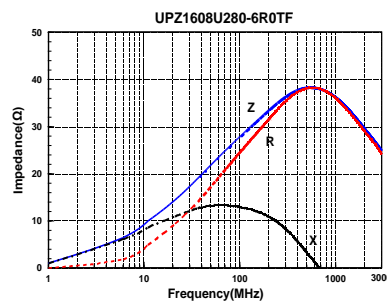
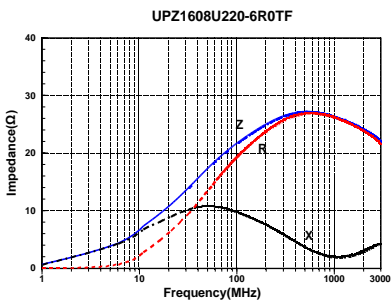
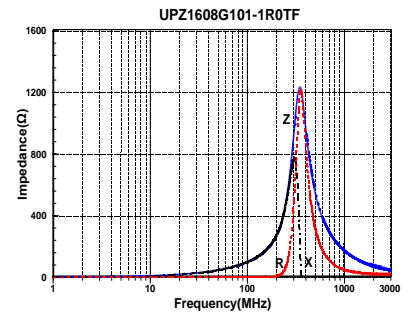
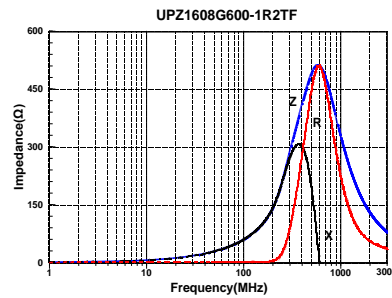


# DETAIL ELECTRICAL CHARACTERISTICS

## UPZ1005 TYPE

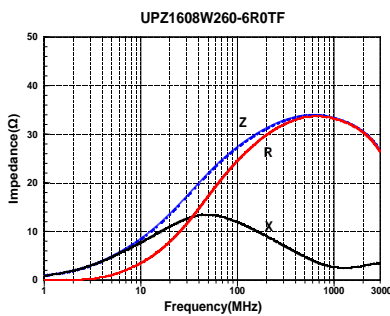
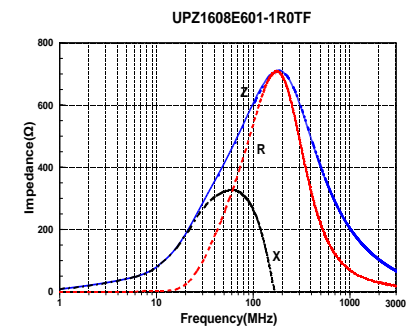
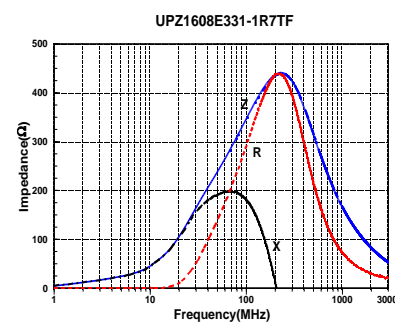
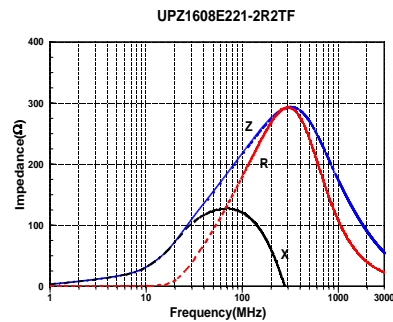
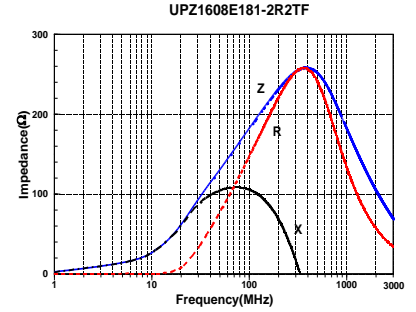
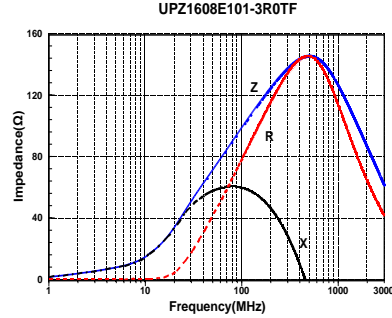
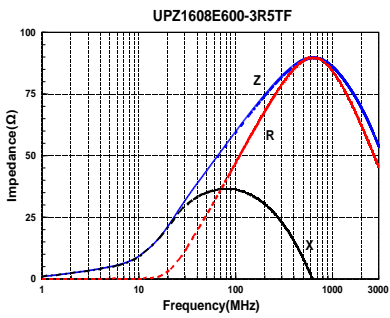
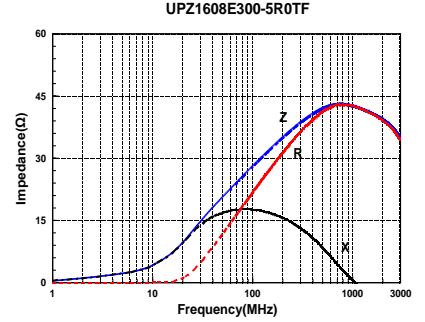
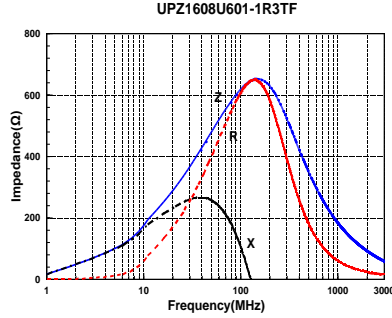
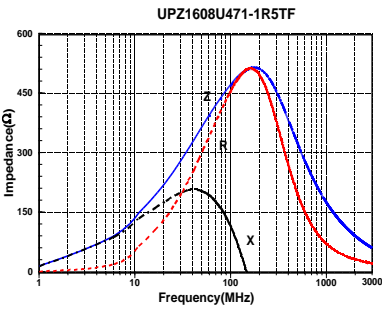
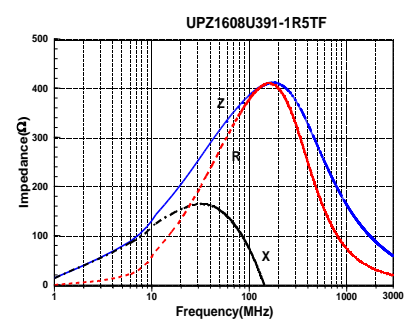
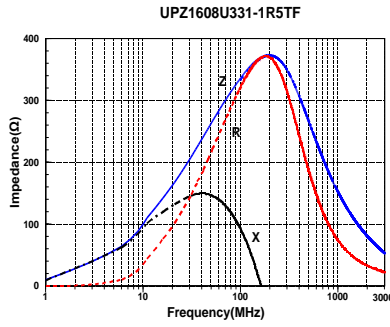


## UPZ1608 TYPE



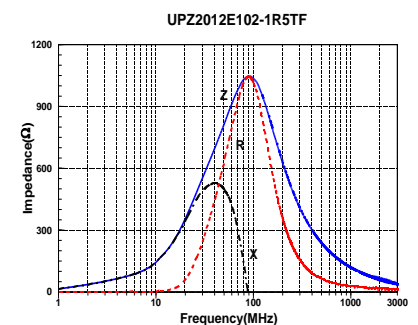
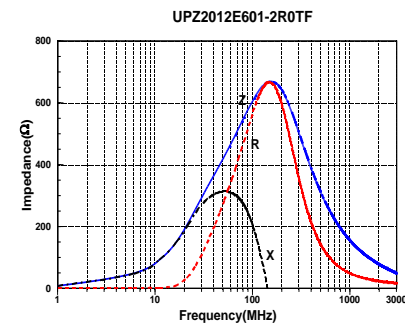
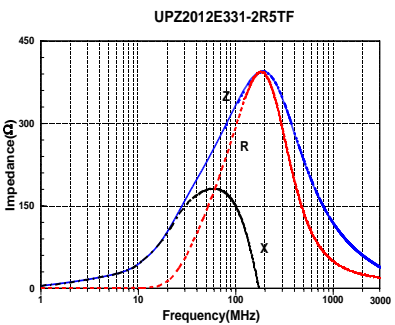
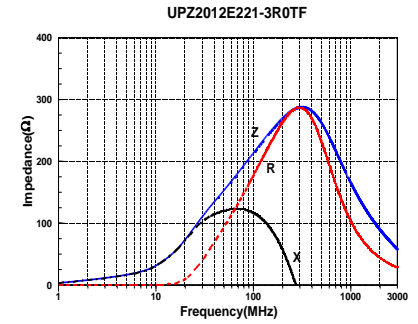
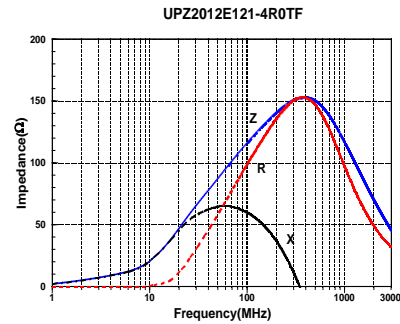
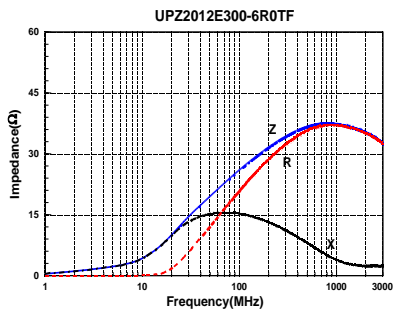
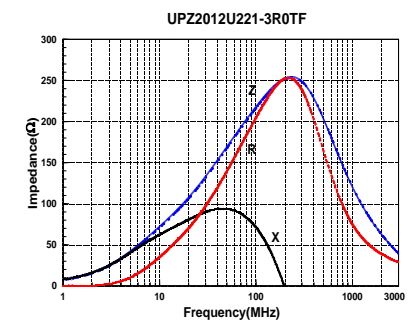
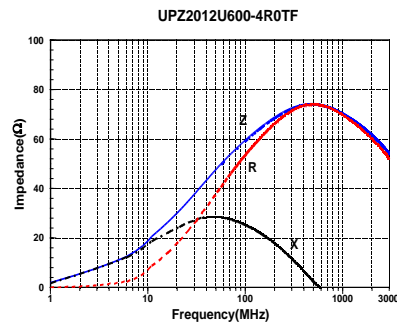
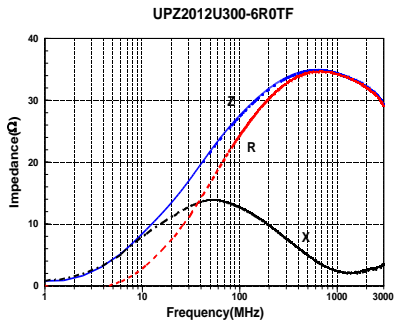
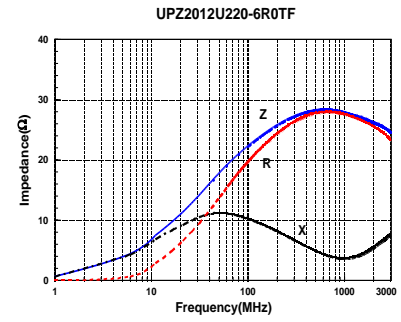
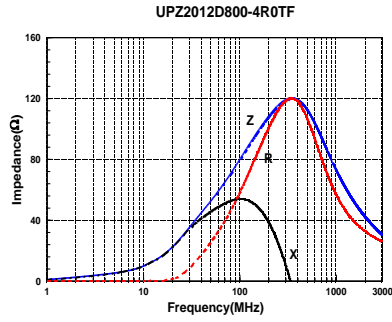
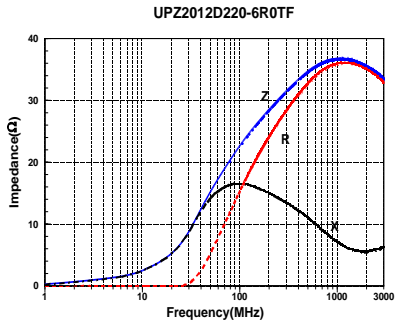
# DETAIL ELECTRICAL CHARACTERISTICS

## UPZ1608 TYPE



# DETAIL ELECTRICAL CHARACTERISTICS

## UPZ2012 TYPE



## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [Ferrite Beads](#) category:*

*Click to view products by [Sunlord](#) manufacturer:*

Other Similar products are found below :

[CZB1EGTTP700P](#) [CZB1JGTTD152P](#) [CZB1JGTTD601P](#) [CZB2AFTTD800P](#) [CZB2AGTTD121P](#) [CZB2AGTTD601P](#) [CZB2BFTTE600P](#)  
[PE-0402FB121ST](#) [NCB0603R301TR050F](#) [NCB0805A320TR050F](#) [NCB-H1206B680TR300F](#) [SMB2.5-1TR](#) [SMB2.5R-2](#) [CZB1EGTTP121P](#)  
[CZB1JGTTD102P](#) [CZB1JGTTD121P](#) [CZB1JGTTD221P](#) [CZB2AGTTD301P](#) [CZB2BFTTE301P](#) [CZB2BFTTE601P](#) [4221R-1](#) [4221R-2](#)  
[432703041971](#) [EMI0805R-2000](#) [EMI0805R-600](#) [SBY100505T-100Y-N](#) [NCB-GH0402D121TR060F](#) [NCB-H1812D125TR150F](#)  
[CZB2AGTTD102P](#) [NCB0402P301TR005F](#) [NCB0603R152TR030F](#) [NCB0805A121TR050F](#) [NCB3312K900TR500F](#) [NCB-](#)  
[H0805A102TR150F](#) [NCB-H0805A221TR300F](#) [NCB-H1806E181TR300F](#) [NCB0402P300TR030F](#) [NCB0805A102TR040F](#)  
[NCB1806E151TR020F](#) [NCB-H0603R121TR300F](#) [NCB-H0805A220TR600F](#) [NCB-H0805A390TR400F](#) [NCB-H1206B121TR300F](#) [NCB-](#)  
[H1206B601TR200F](#) [CIM21J252NE](#) [EMI0805R-220](#) [74279250](#) [7427924](#) [CZB1JGTTD202P](#) [ABUPDE160808121Y00](#)