

# 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**

**1608**

**E**

**221**

**-2R2**

**T**

**F**

①

②

③

④

⑤

⑥

⑦

①

Type	
UPZ	Chip Ferrite Bead For Ultra Large Current

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

③

Material Code	
G, D, E, U, W	

④

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

⑤

Rated Current	
1R5	1.5A
2R2	2.2A

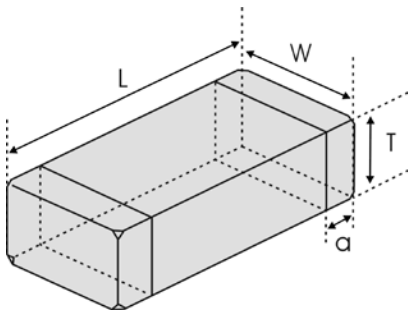
⑥

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 [.024±0.002]	0.3±0.05 [.012±.002]	0.3±0.05 [.012±.002]	0.15±0.05 [.006±.002]
UPZ1005 [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]
UPZ1608 [0603]	1.65±0.15 [.065±.006]	0.8±0.15 [.031±.006]	0.8±0.15 [.031±.006]	0.3±0.2 [.012±.008]
UPZ2012 [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

### 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 [.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 [.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 [.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

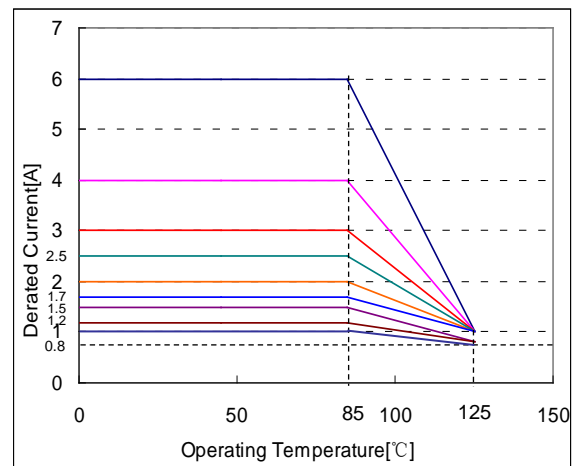
## UPZ2012 TYPE

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 [.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	

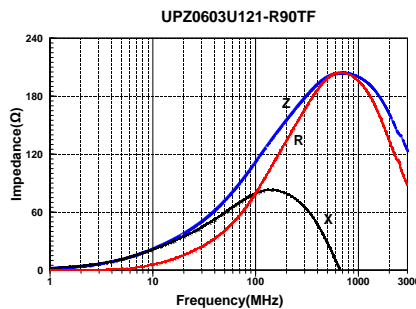
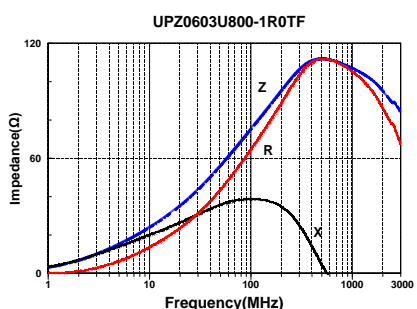
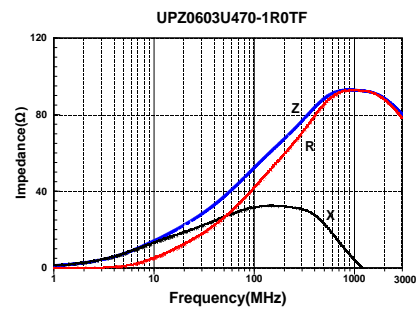
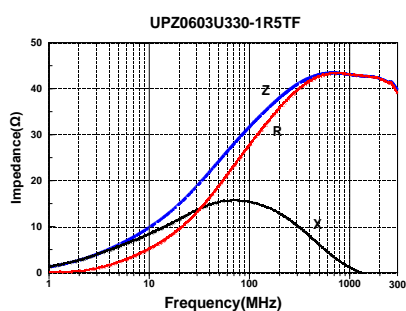
## DETAIL ELECTRICAL CHARACTERISTICS

### 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.

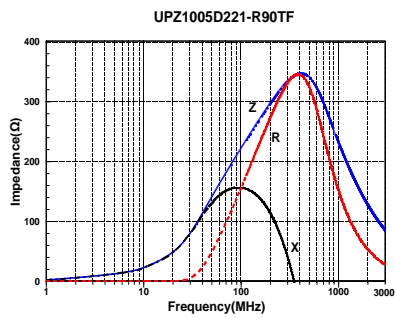
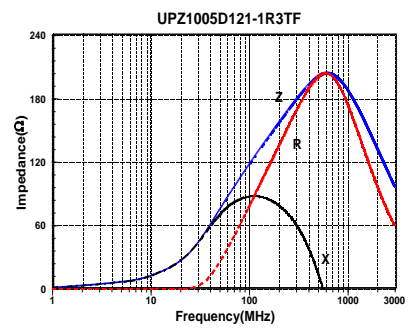


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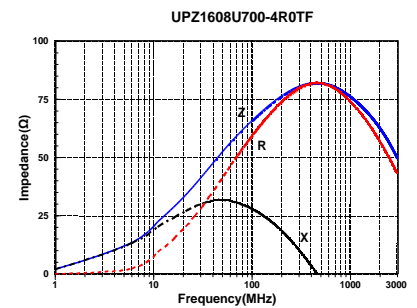
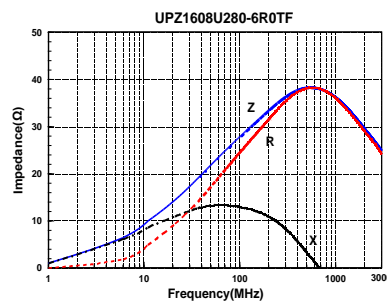
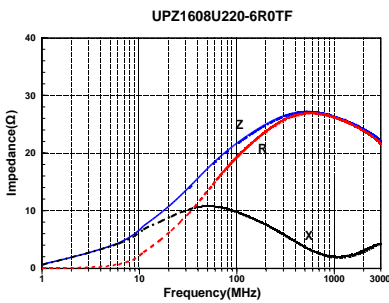
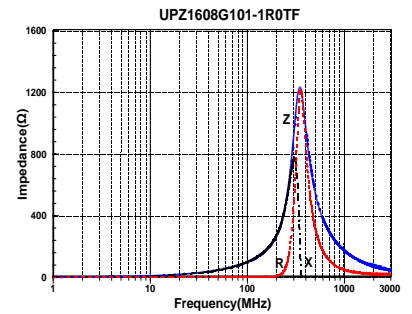
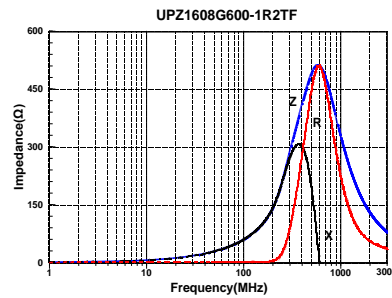


# DETAIL ELECTRICAL CHARACTERISTICS

## UPZ1005 TYPE

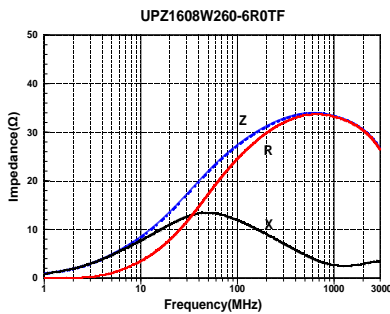
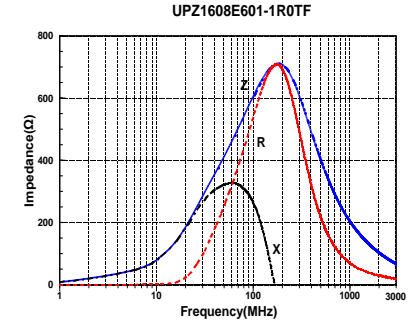
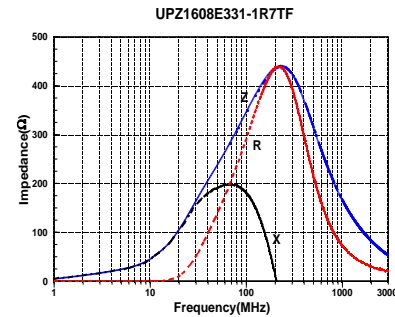
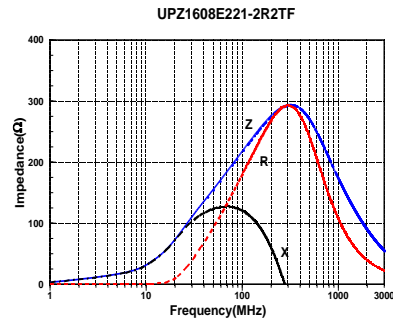
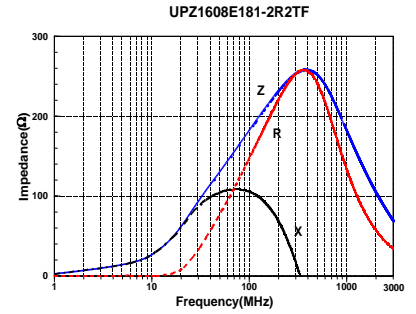
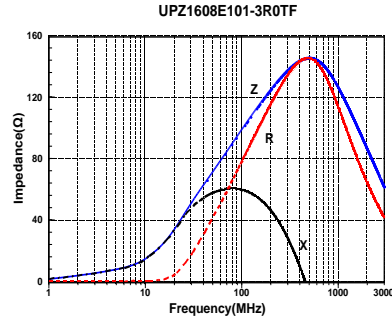
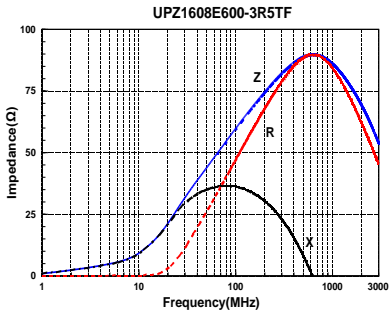
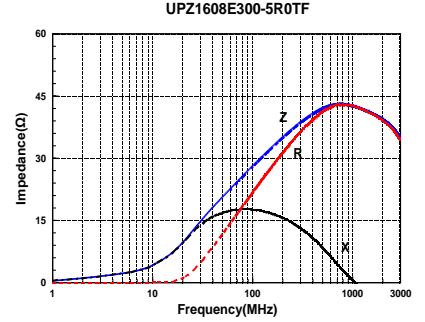
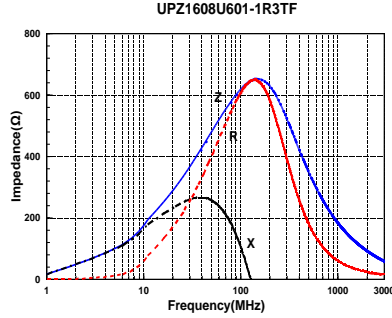
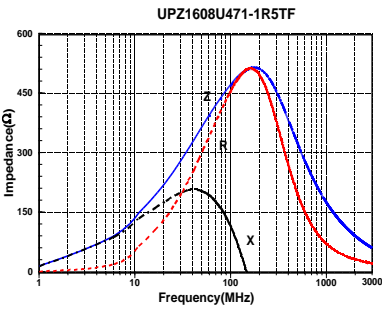
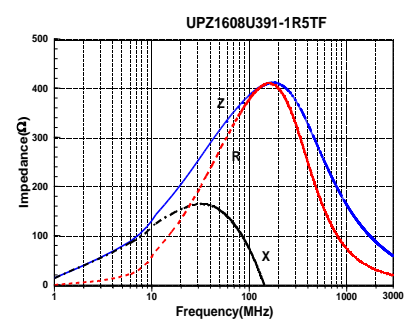
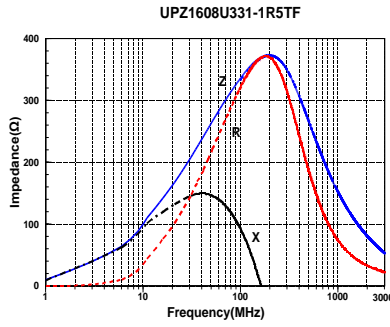


## UPZ1608 TYPE



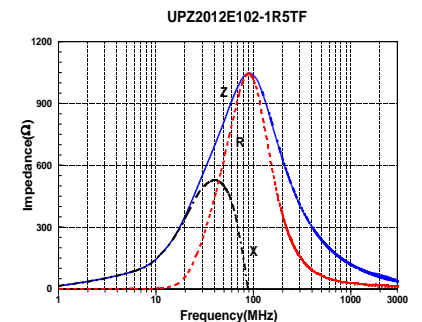
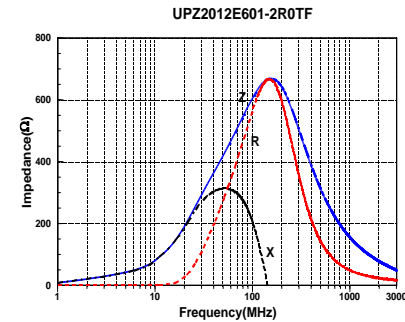
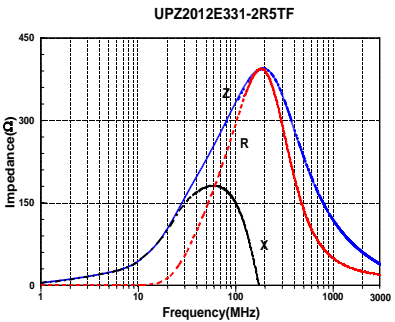
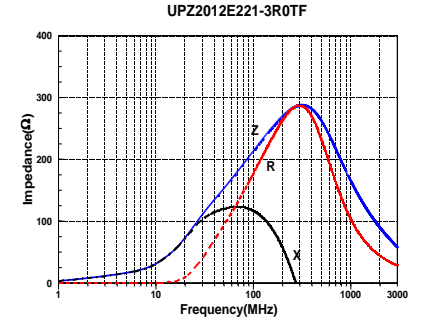
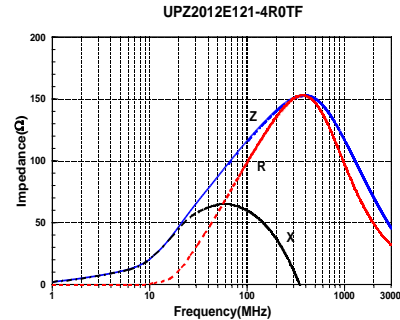
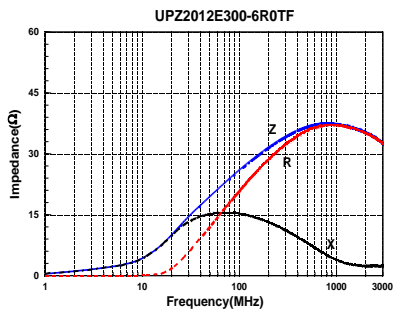
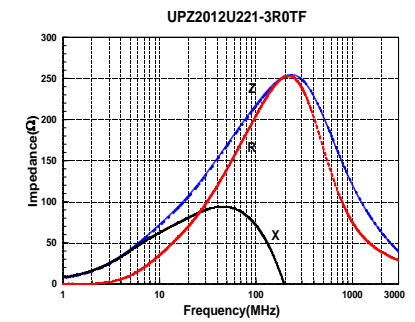
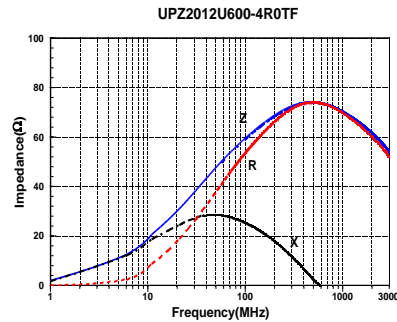
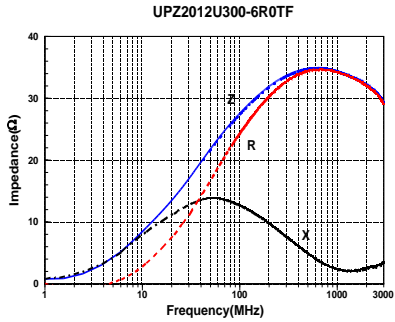
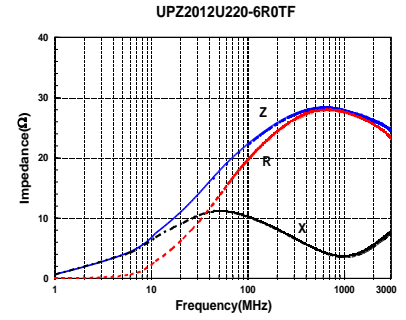
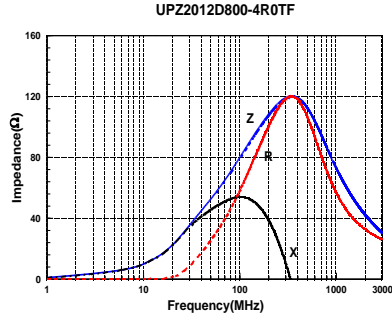
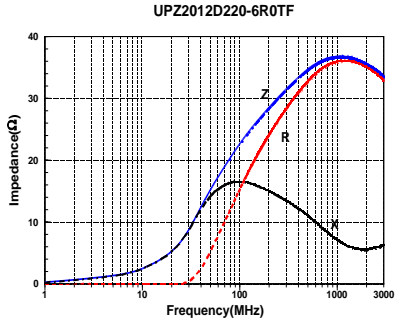
# DETAIL ELECTRICAL CHARACTERISTICS

## UPZ1608 TYPE



# DETAIL ELECTRICAL CHARACTERISTICS

## UPZ2012 TYPE



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