Multilayer Ferrite Chip Beads
TB Series

Features

- High density packaging with a pitch of 2.54 mm (0.1 inch) max. is possible. This series requires less space and has greater EMI suppression effects.
- Different types with the same shape are available.
- Excellent in physical properties, such as terminal strength, flexure strength, soldering resistance and solderability.
- Applicable to both flow and reflow soldering.
- High impedance cover wide frequency ranges.
- L material type can minimize attenuation of the signal waveform due to its sharp impedance.

Applications

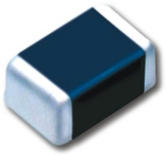
- Computers and peripheral devices, personal computers, VCR and cameras.
- Noise suppression in digital equipments, car stereo, car engines controllers and OA electronic instruments.
- Communication equipment.

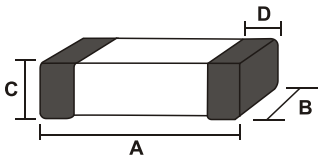
Product Identifications

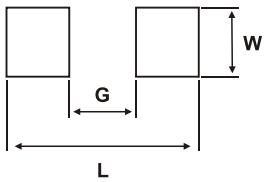
TB □□□□□□ □ □□□
(1) (2) (3) (4)

(1) Product Symbol: Multilayer Chip Beads
(2) Dimensions: Length (A) x Width (B) x Thickness (C)
(3) Material Code
(4) Impedance

Shapes and Dimensions / Recommended PC Board Pattern







Dimensions in mm (inch)

TYPE	A	B	C	D	L	W	G
060303	0.6±0.05 (0.024±0.002)	0.3±0.05 (0.012±0.002)	0.3±0.05 (0.012±0.002)	0.15±0.05 (0.006±0.002)	0.90 (0.035)	0.30 (0.012)	0.30 (0.012)
100505	1.0±0.1 (0.040±0.004)	0.5±0.1 (0.020±0.004)	0.5±0.1 (0.020±0.004)	0.25±0.15 (0.010±0.006)	2.20 (0.086)	0.70 (0.028)	0.40 (0.016)
160808	1.6±0.2 (0.063±0.008)	0.8±0.2 (0.031±0.008)	0.8±0.2 (0.031±0.008)	0.3±0.2 (0.012±0.008)	2.80 (0.110)	1.00 (0.039)	0.60 (0.024)
201209	2.0±0.2 (0.079±0.008)	1.2±0.2 (0.047±0.008)	0.9±0.2 (0.035±0.008)	0.5±0.3 (0.020±0.012)	3.20 (0.126)	1.50 (0.059)	0.60 (0.024)
321611	3.2±0.2 (0.126±0.008)	1.6±0.2 (0.063±0.008)	1.1±0.2 (0.043±0.008)	0.5±0.3 (0.020±0.012)	4.40 (0.173)	1.80 (0.071)	1.20 (0.047)
322513	3.2±0.2 (0.126±0.008)	2.5±0.2 (0.098±0.008)	1.3±0.2 (0.051±0.008)	0.5±0.3 (0.020±0.012)	4.40 (0.173)	2.70 (0.106)	1.20 (0.047)
451616	4.5±0.2 (0.177±0.008)	1.6±0.2 (0.063±0.008)	1.6±0.2 (0.063±0.008)	0.5±0.3 (0.020±0.012)	5.80 (0.228)	1.80 (0.071)	2.00 (0.079)
453215	4.5±0.2 (0.177±0.008)	3.2±0.2 (0.126±0.008)	1.5±0.2 (0.059±0.008)	0.5±0.3 (0.020±0.012)	5.80 (0.228)	3.40 (0.134)	2.00 (0.079)

Multilayer Ferrite Chip Beads
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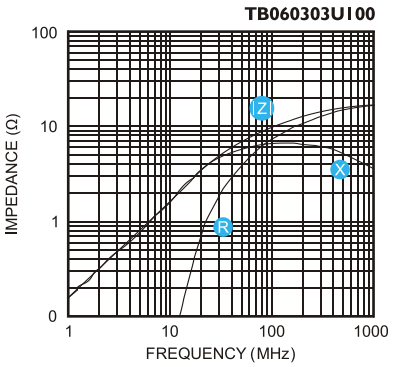
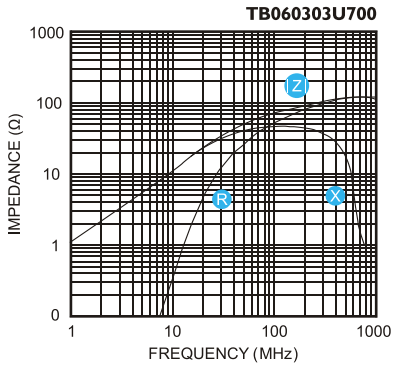
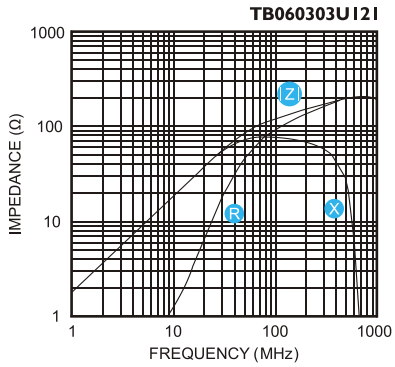
Electrical Characteristics — 060303 Type

Part Number	Impedance (Ω) ±25% At 100MHz	DC Resistance (Ω) MAX.	Rated Current (mA) MAX.
TB 060303 U100	10	0.10	500
TB 060303 U700	70	0.50	200
TB 060303 U121	120	0.80	200

Electrical Charts — 060303 Type







Multilayer Ferrite Chip Beads
TB Series

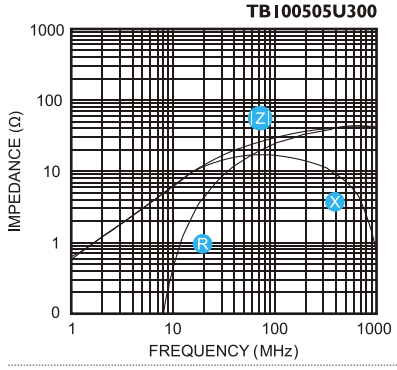
Electrical Characteristics — 100505 Type

Part Number	Impedance (Ω) ±25% At 100MHz	DC Resistance (Ω) MAX.	Rated Current (mA) MAX.
TB 100505 U300	30	0.30	500
TB 100505 U600	60	0.40	200
TB 100505 U121	120	0.50	200
TB 100505 U221	220	0.70	100
TB 100505 U301	300	0.80	100
TB 100505 U451	450	0.90	100
TB 100505 U601	600	1.00	100
TB 100505 U102	1000	1.50	50
TB 100505 Z300	30	0.30	500
TB 100505 Z600	60	0.40	200
TB 100505 Z121	120	0.50	200
TB 100505 Z221	220	0.70	100
TB 100505 Z301	300	0.80	100
TB 100505 Z451	450	0.90	100
TB 100505 Z601	600	1.00	100
TB 100505 G300	30	0.30	500
TB 100505 G600	60	0.40	200
TB 100505 G121	120	0.50	200
TB 100505 G221	220	0.70	100
TB 100505 G301	300	0.80	100
TB 100505 G451	450	0.90	100
TB 100505 G601	600	1.00	100
TB 100505 G102	1000	1.30	100
TB 100505 B300	30	0.40	200
TB 100505 B600	60	0.50	200
TB 100505 B121	120	0.70	100
TB 100505 B221	220	0.90	100
TB 100505 B301	300	1.00	100

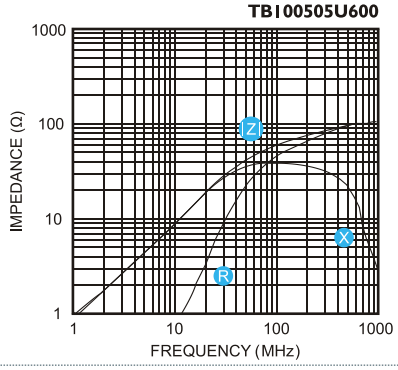
Multilayer Ferrite Chip Beads
TB Series

Electrical Charts 100505 Type

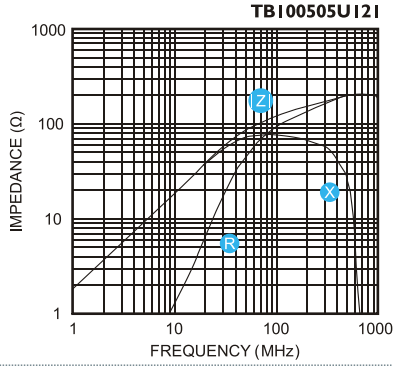
TB100505U300



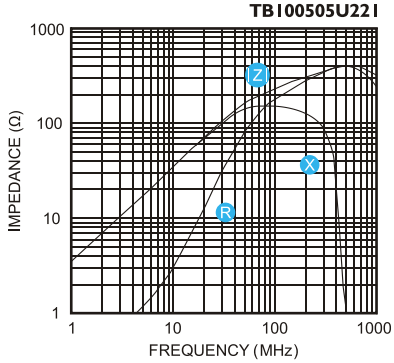
TB100505U600



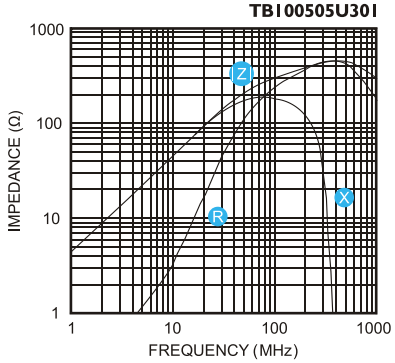
TB100505U121



TB100505U221



TB100505U301



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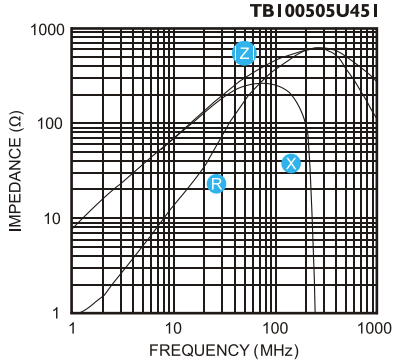
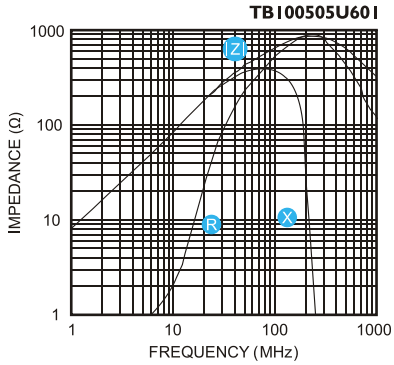
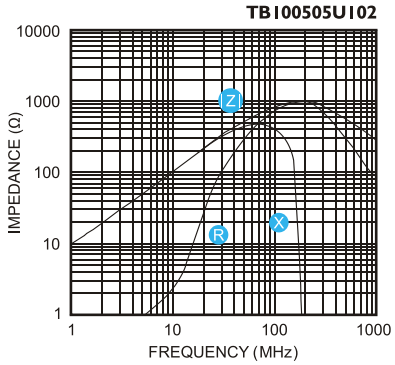


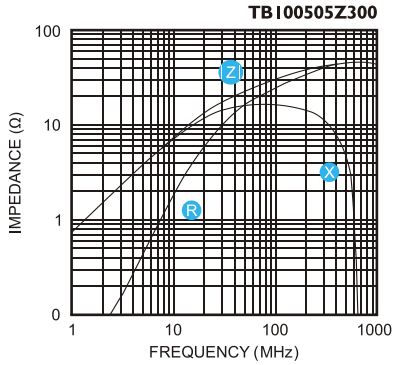
TB100505U601



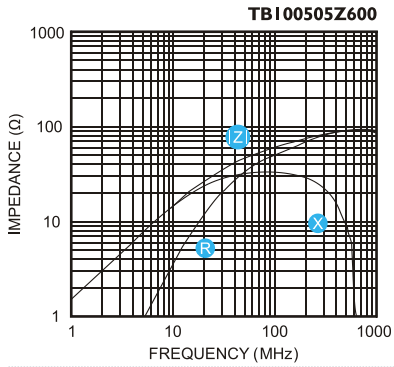
TB100505U102



TB100505Z300



TB100505Z600



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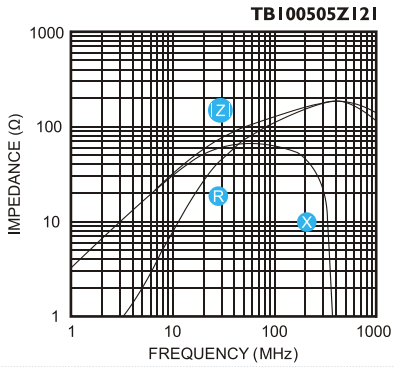

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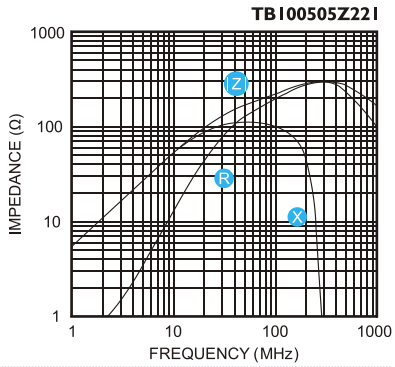

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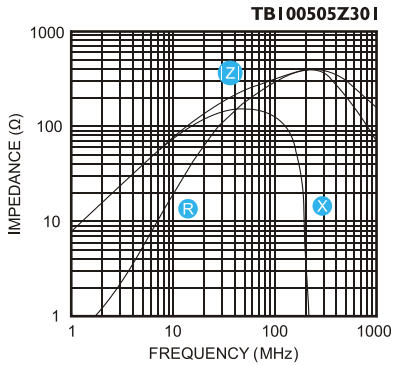

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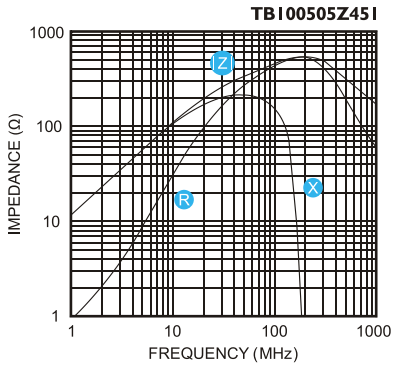

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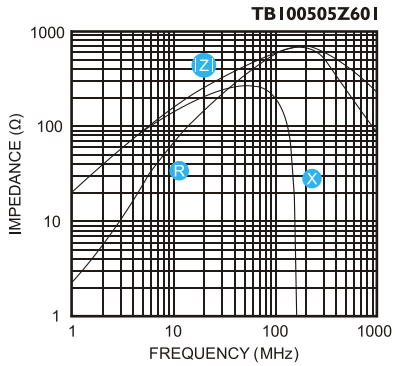
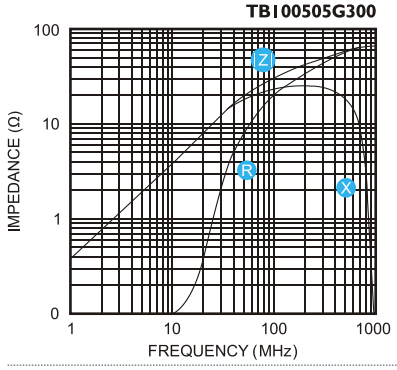


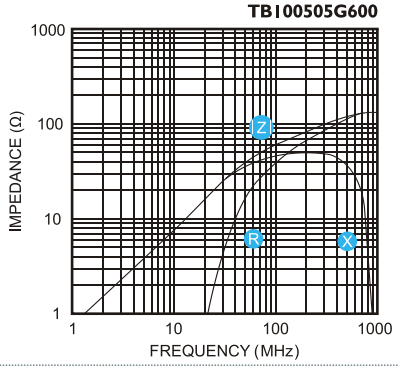
Multilayer Ferrite Chip Beads
TB Series

Electrical Charts 100505 Type

TB100505G300



TB100505G600



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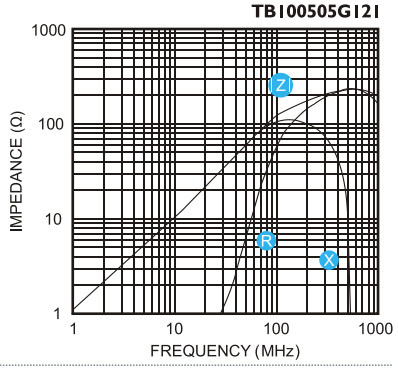

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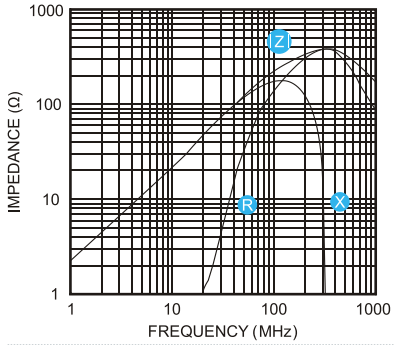

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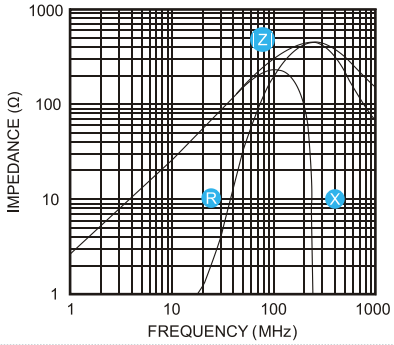

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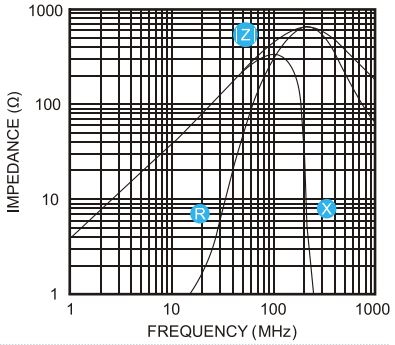

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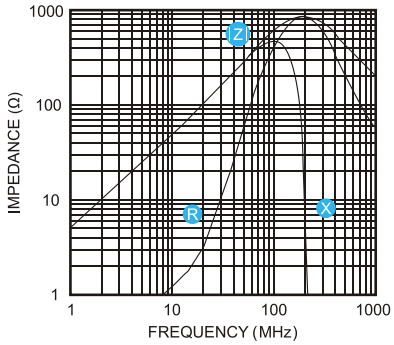

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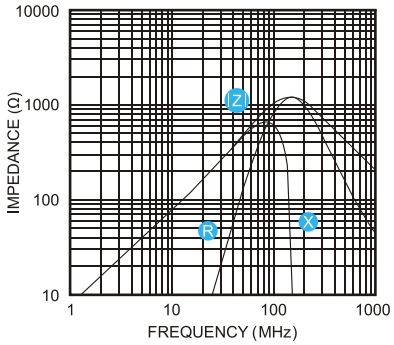
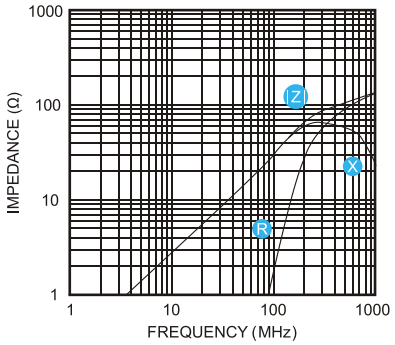


TB100505B300



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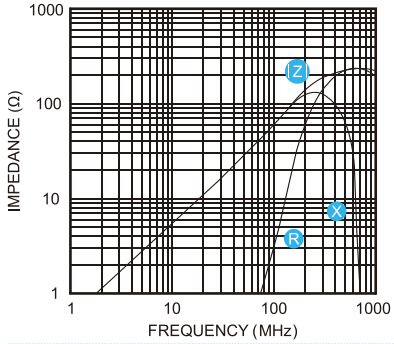

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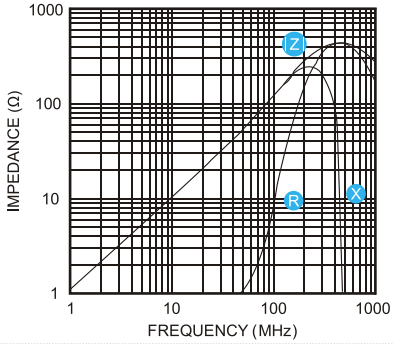

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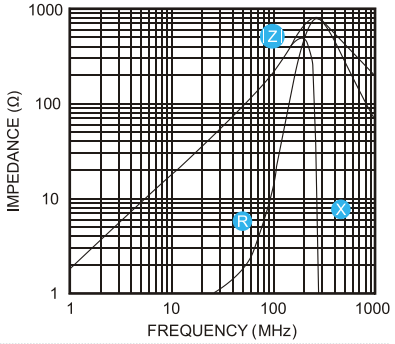

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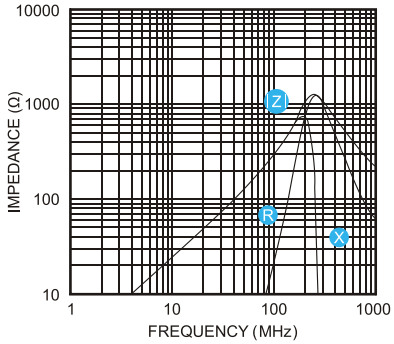


Multilayer Ferrite Chip Beads
TB Series

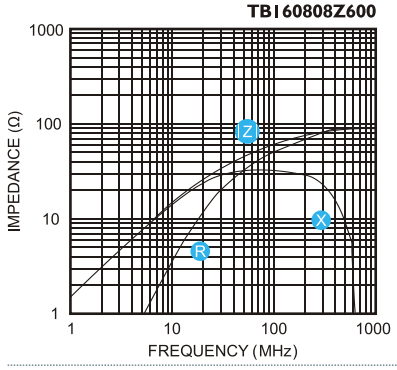
Electrical Characteristics — 160808 Type

Part Number	Impedance (Ω) ±25% At 100MHz	DC Resistance (Ω) MAX.	Rated Current (mA) MAX.
TB 160808 Z600	60	0.20	300
TB 160808 Z800	80	0.20	300
TB 160808 Z121	120	0.20	200
TB 160808 Z221	220	0.20	200
TB 160808 Z301	300	0.35	200
TB 160808 Z451	450	0.40	250
TB 160808 Z601	600	0.45	200
TB 160808 Z102	1000	0.60	100
TB 160808 U090	9	0.20	500
TB 160808 U300	30	0.20	400
TB 160808 U600	60	0.20	300
TB 160808 U800	80	0.20	300
TB 160808 U121	120	0.20	200
TB 160808 U221	220	0.20	200
TB 160808 U301	300	0.35	200
TB 160808 U451	450	0.40	200
TB 160808 U601	600	0.45	200
TB 160808 U102	1000	0.60	100
TB 160808 G600	60	0.20	300
TB 160808 G800	80	0.20	300
TB 160808 G121	120	0.20	200
TB 160808 G221	220	0.20	200
TB 160808 G301	300	0.35	200
TB 160808 G451	450	0.40	200
TB 160808 G601	600	0.45	200
TB 160808 G102	1000	0.60	100
TB 160808 G152	1500	0.70	50
TB 160808 G202	2000	0.80	50
TB 160808 G252	2500	1.00	50
TB 160808 B050	5	0.20	600
TB 160808 B400	40	0.30	300
TB 160808 B600	60	0.30	300
TB 160808 B800	80	0.30	200
TB 160808 B121	120	0.30	200
TB 160808 B181	180	0.35	200
TB 160808 B221	220	0.40	200
TB 160808 B301	300	0.45	200
TB 160808 B601	600	0.65	200
TB 160808 B102	1000	0.80	50
TB 160808 L150	15	0.30	200
TB 160808 L300	30	0.30	200
TB 160808 L600	60	0.30	200
TB 160808 L800	80	0.40	150
TB 160808 L121	120	0.40	150
TB 160808 L221	220	0.45	150
TB 160808 L301	300	0.60	100

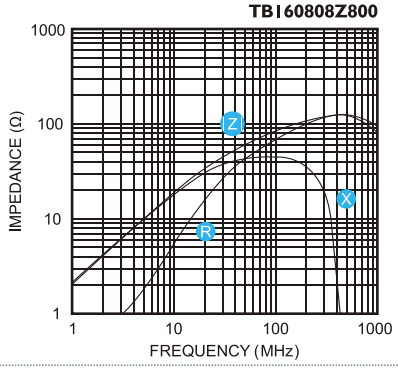
Multilayer Ferrite Chip Beads
TB Series

Electrical Charts 160808 Type

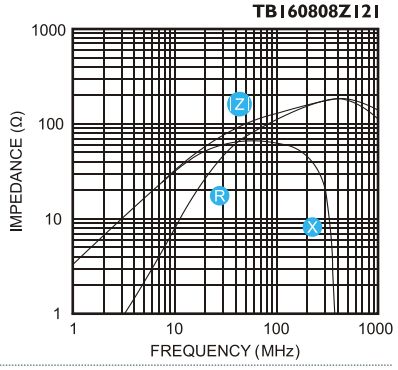
TB160808Z600



TB160808Z800



TB160808Z121



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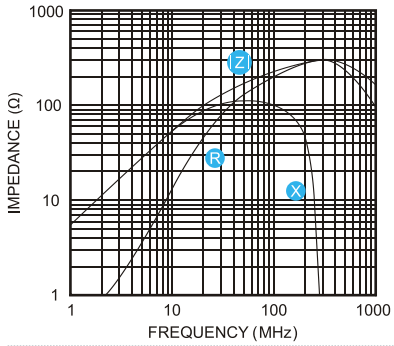

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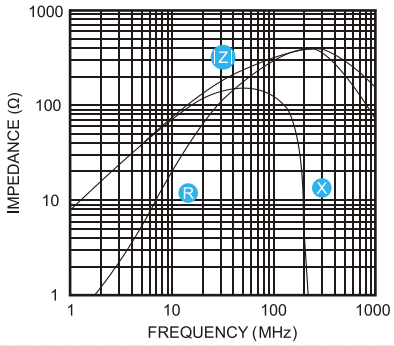
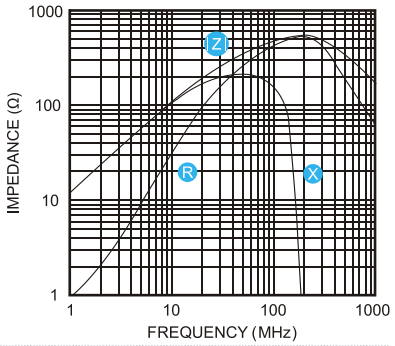
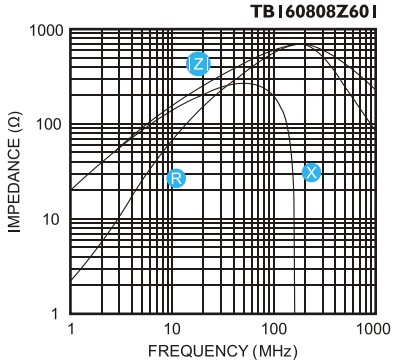


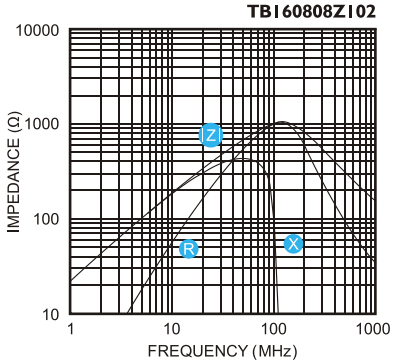
TB160808Z451



TB160808Z601



TB160808Z102



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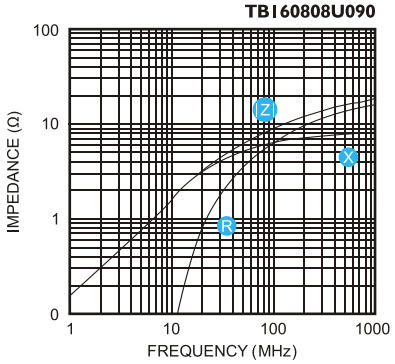

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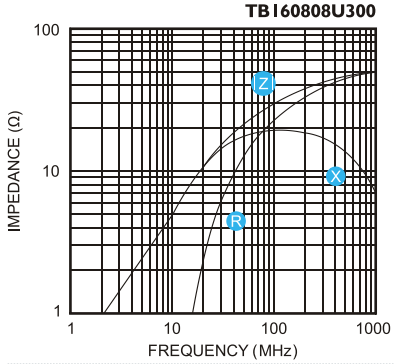

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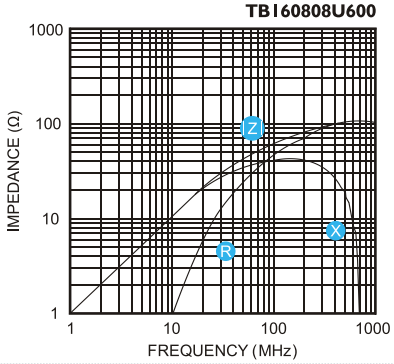

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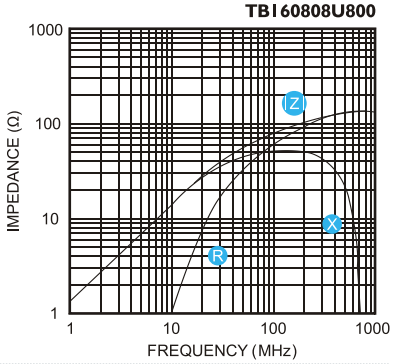

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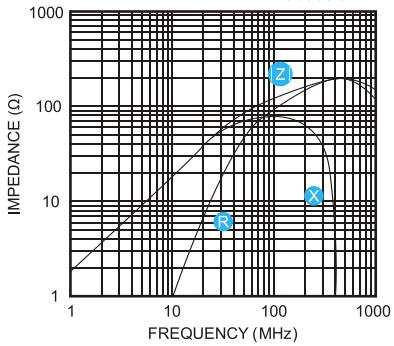
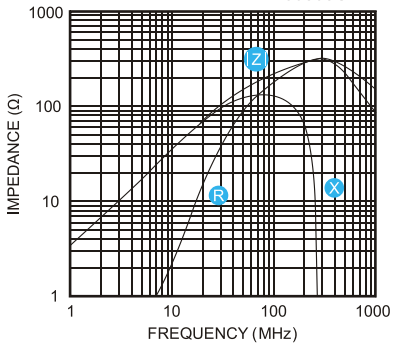


TB160808U221



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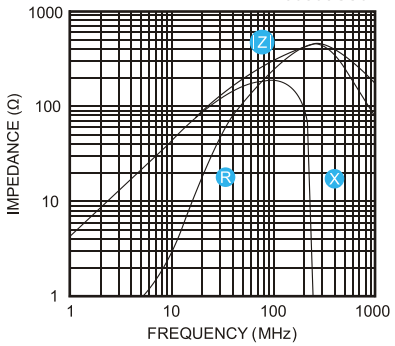
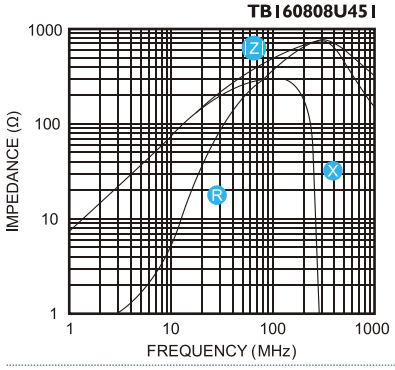


Multilayer Ferrite Chip Beads
TB Series

Electrical Charts 160808 Type

TB160808U451



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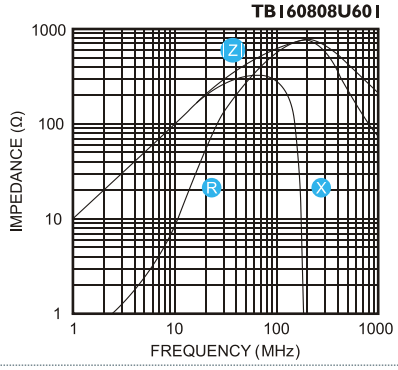

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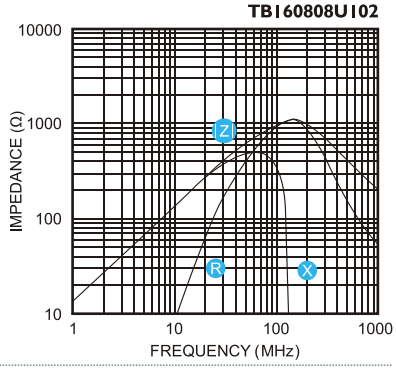

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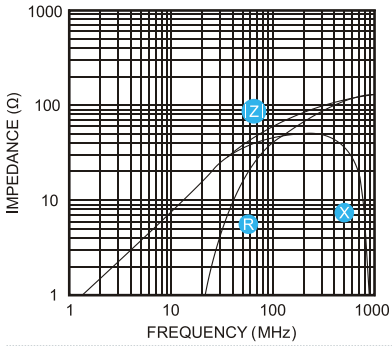

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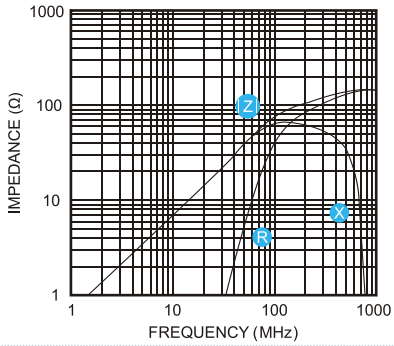

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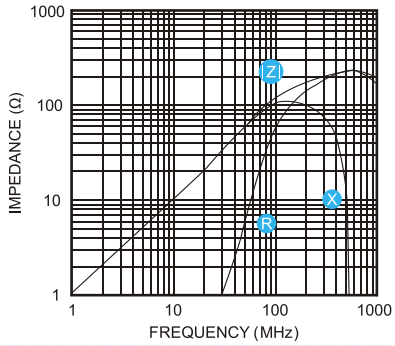

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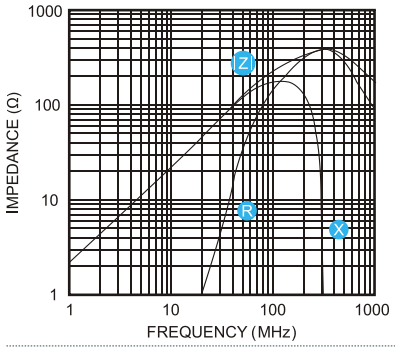

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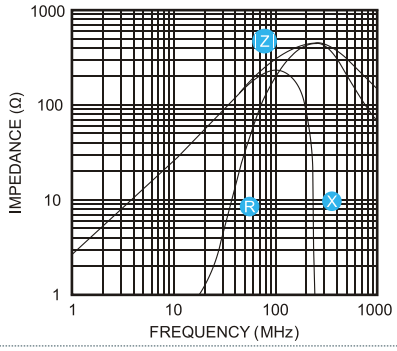

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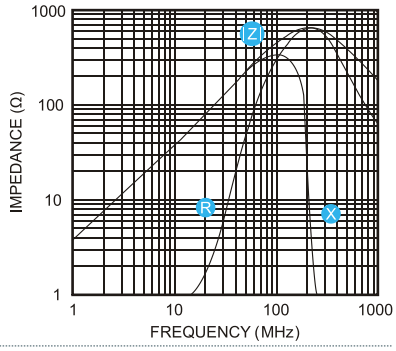

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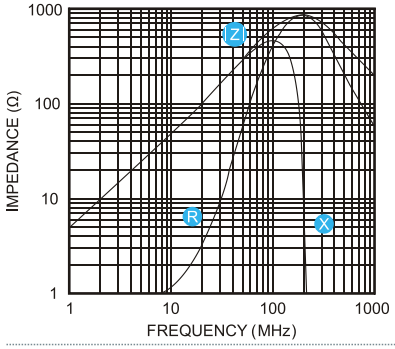

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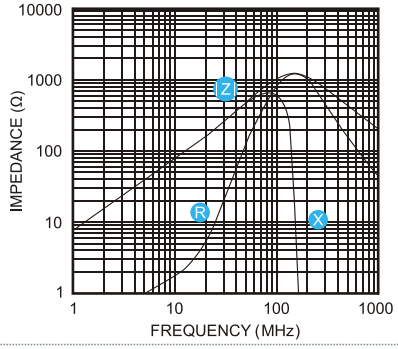

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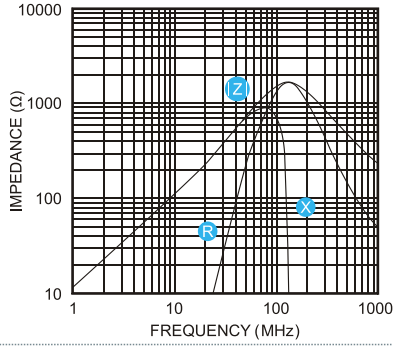

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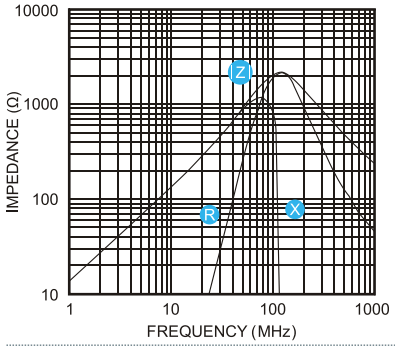

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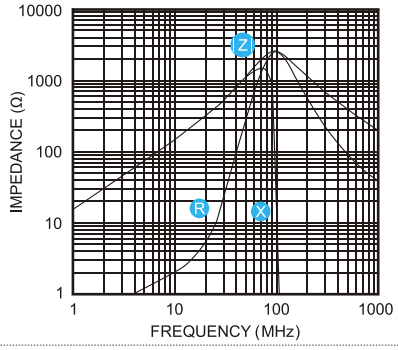
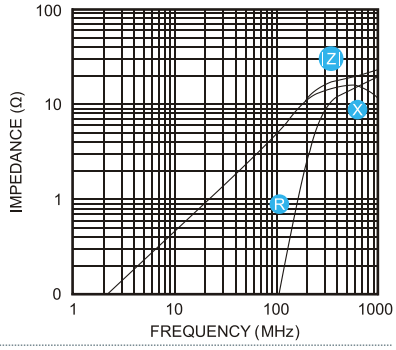


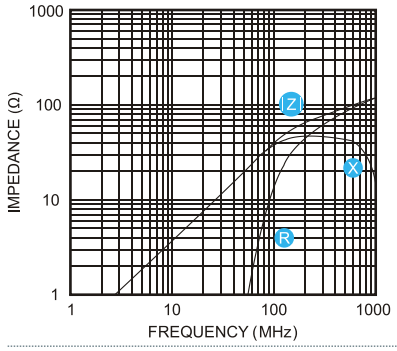
TB160808B050



Multilayer Ferrite Chip Beads
TB Series

Electrical Charts 160808 Type

TB160808B400



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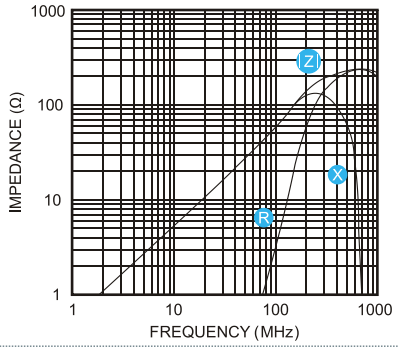

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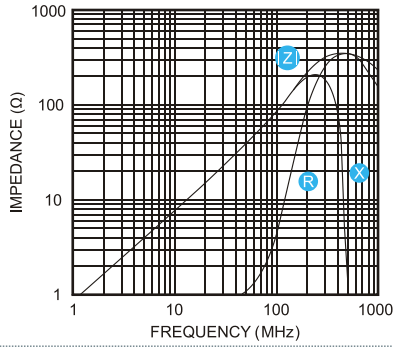

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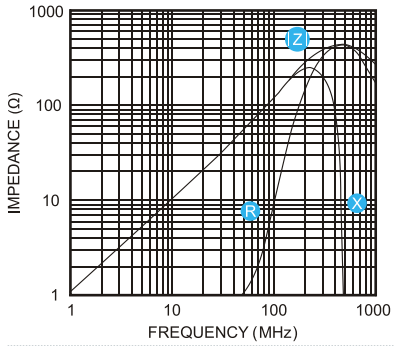

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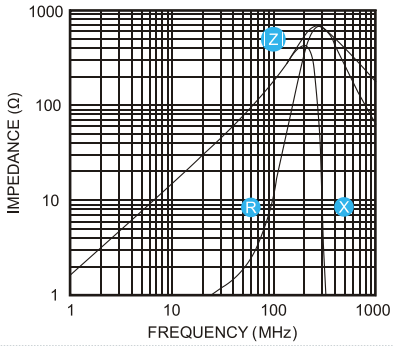

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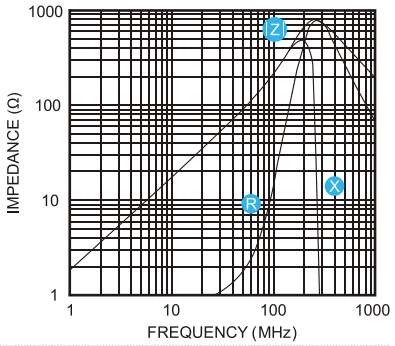

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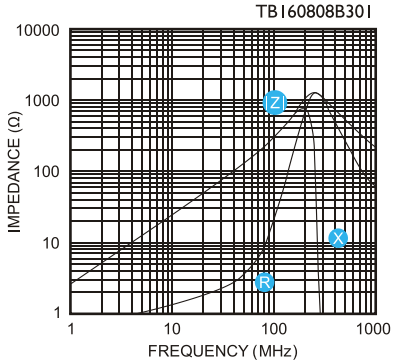

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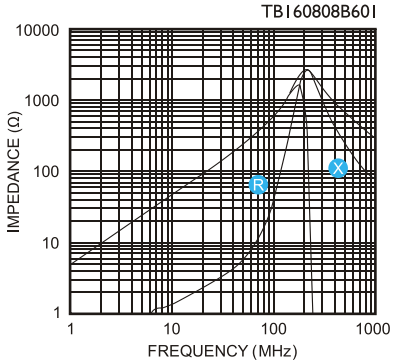

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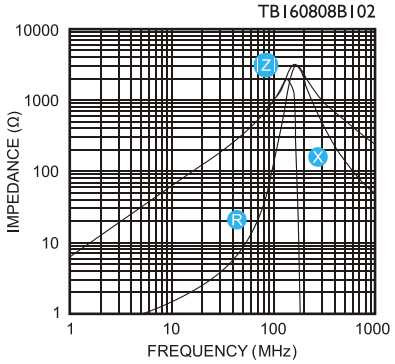

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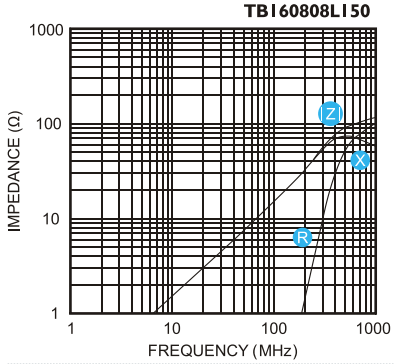

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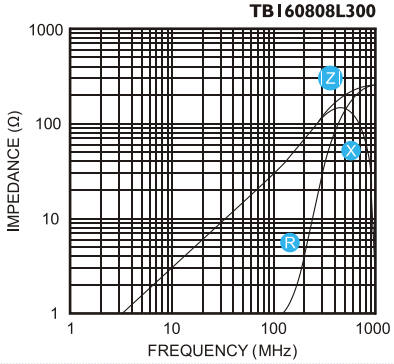

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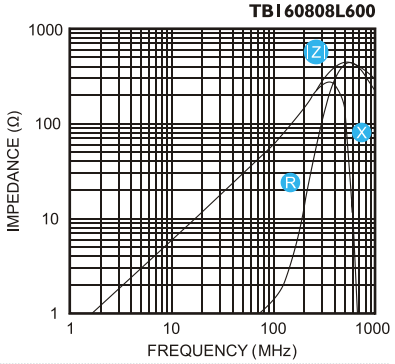
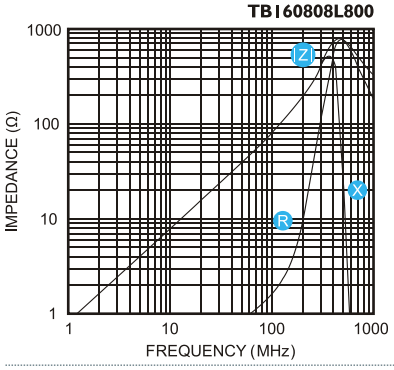


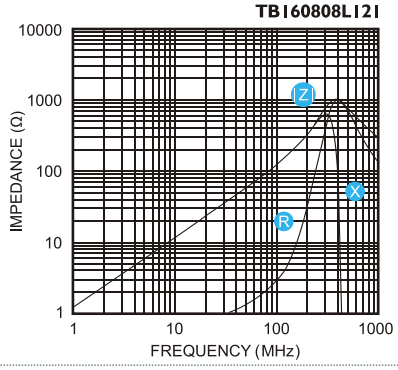
Multilayer Ferrite Chip Beads
TB Series

Electrical Charts 160808 Type

TB160808L800



TB160808L121



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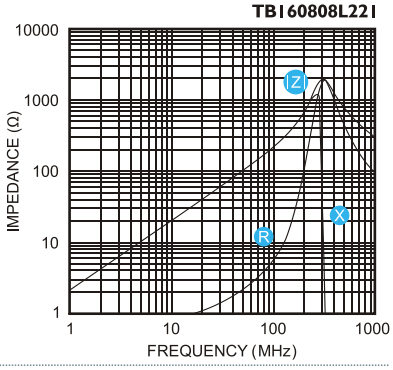

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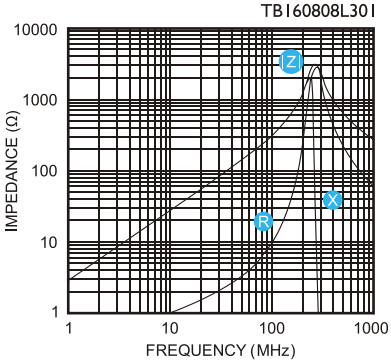


Multilayer Ferrite Chip Beads TB Series

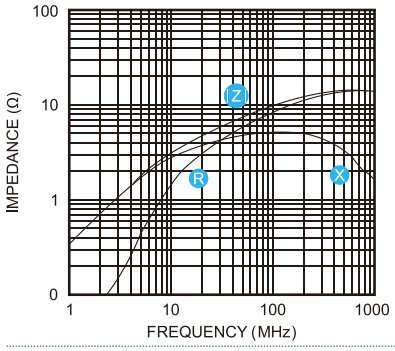
Electrical Characteristics — 201209 Type

Part Number	Impedance (Ω) ±25% At 100MHz	DC Resistance (Ω) MAX.	Rated Current (mA) MAX.
TB 201209 Z100	10	0.15	600
TB 201209 Z800	80	0.15	300
TB 201209 Z121	120	0.25	300
TB 201209 Z151	150	0.25	300
TB 201209 Z221	220	0.30	200
TB 201209 Z301	300	0.30	200
TB 201209 Z501	500	0.30	200
TB 201209 Z601	600	0.35	200
TB 201209 Z102	1000	0.45	200
TB 201209 U110	11	0.15	600
TB 201209 U320	32	0.15	400
TB 201209 U800	80	0.15	300
TB 201209 U121	120	0.25	300
TB 201209 U151	150	0.25	300
TB 201209 U221	220	0.30	200
TB 201209 U301	300	0.30	200
TB 201209 U501	500	0.30	200
TB 201209 U601	600	0.35	200
TB 201209 U102	1000	0.45	200
TB 201209 G800	80	0.15	300
TB 201209 G121	120	0.25	300
TB 201209 G151	150	0.25	300
TB 201209 G221	220	0.30	200
TB 201209 G301	300	0.30	200
TB 201209 G501	500	0.30	200
TB 201209 G601	600	0.35	200
TB 201209 G102	1000	0.45	200
TB 201209 G152	1500	0.55	200
TB 201209 G202	2000	0.60	200
TB 201209 G222	2200	0.80	200
TB 201209 G272	2700	0.80	200
TB 201209 B070	7	0.15	600
TB 201209 B400	40	0.20	300
TB 201209 B800	80	0.20	300
TB 201209 B121	120	0.25	200
TB 201209 B221	220	0.35	200
TB 201209 B301	300	0.40	200
TB 201209 B601	600	0.50	200
TB 201209 B102	1000	0.60	200

Multilayer Ferrite Chip Beads
TB Series

Electrical Charts 201209 Type

TB201209Z100



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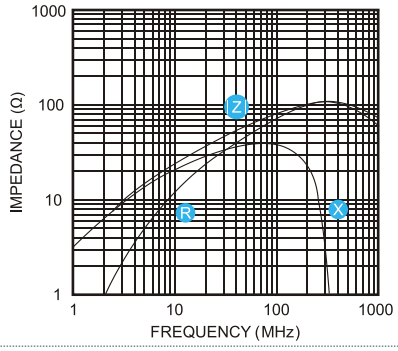
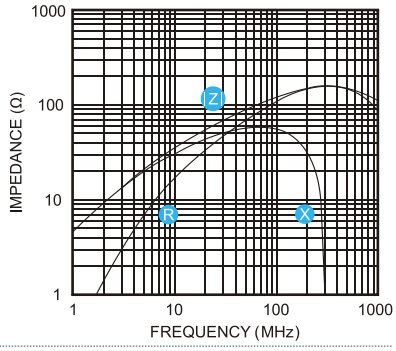


TB201209Z121



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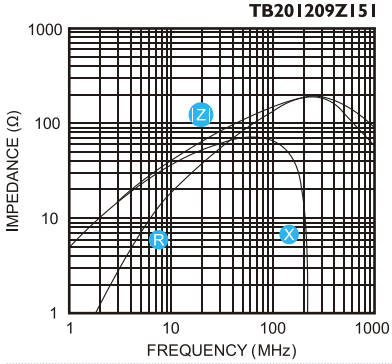

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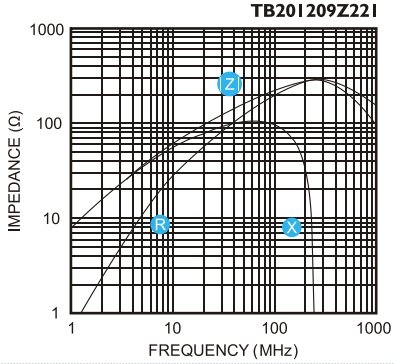

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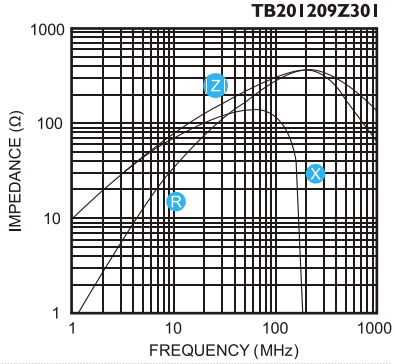
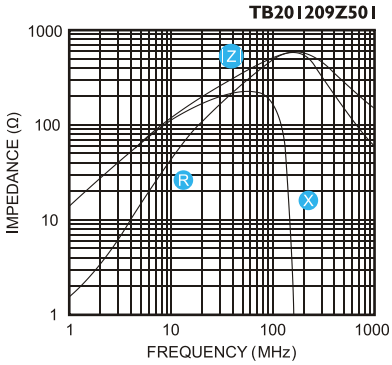
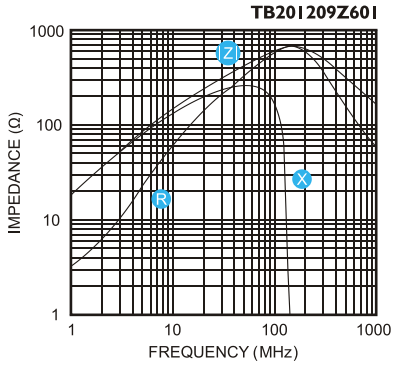


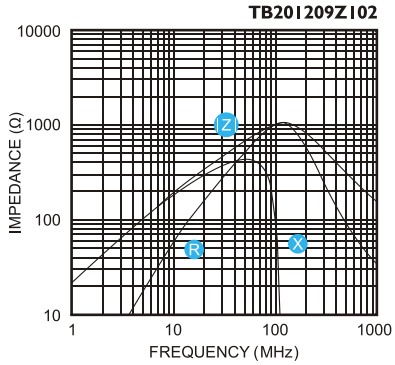
TB201209Z501



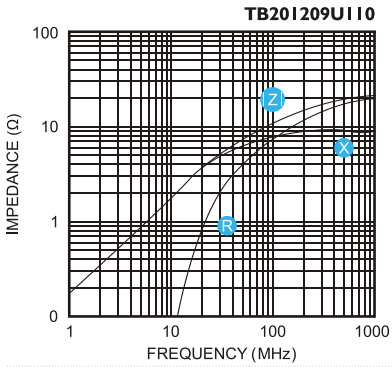
TB201209Z601



TB201209Z102



TB201209U110



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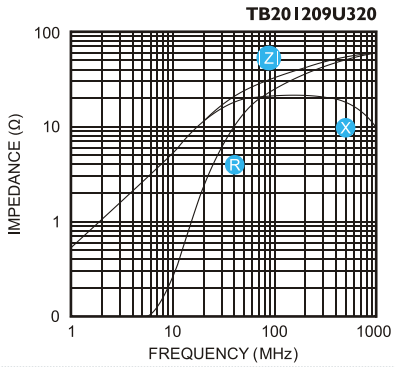
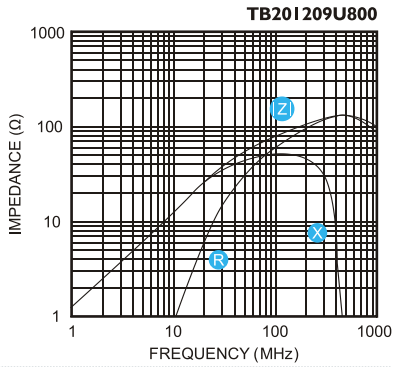


TB201209U800



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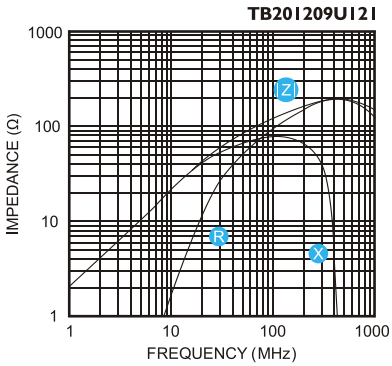

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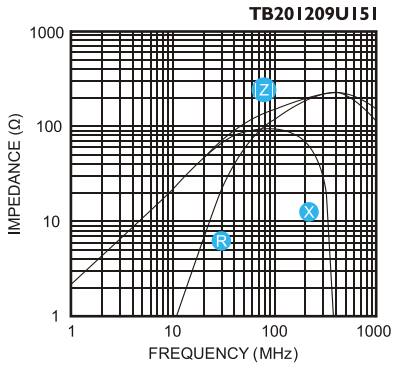

TB201209U221