

High Current Ferrite Beads

This series is used for EMI suppression and can match power lines to a maximum of 3A or 3000mA.

These beads exhibit high current capabilities due to their low DC resistance.

FBC-L Series: This series provides lower impedance at 10MHz.

FBC-H Series: This series provides higher impedance values at 10MHz due to different material permeability.

Features

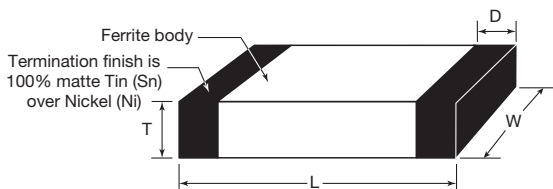
- Smallest beads possible for high current and high impedance
- Perfect shape for automatic mounting with no directionality
- Excellent solderability and high heat resistance for either flow or reflow soldering
- Monolithic inorganic material construction for high reliability

Application

- EMI and Noise Suppression in power lines.

Unit: mm (inch)

Dimensions



Size	L	W	t	d
0402	1.0 ± 0.05 (0.040 ± 0.002)	0.5 ± 0.05 (0.020 ± 0.002)	0.5 ± 0.05 (0.020 ± 0.002)	0.25 ± 0.1 (0.010 ± 0.004)
0603	1.6 ± 0.15 (0.063 ± 0.006)	0.8 ± 0.15 (0.031 ± 0.006)	0.8 ± 0.15 (0.031 ± 0.006)	0.3 ± 0.2 (0.012 ± 0.008)
0805	2.0 ± 0.2 (0.079 ± 0.008)	1.25 ± 0.2 (0.050 ± 0.008)	0.9 ± 0.2 (0.036 ± 0.008)	0.5 ± 0.3 (0.020 ± 0.012)
1206	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)
1806	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 ± 0.02)
1812	4.5 ± 0.2 (0.177 ± 0.008)	3.2 ± 0.2 (0.126 ± 0.008)	1.5 ± 0.2 (0.060 ± 0.008)	0.5 ± 0.3 (0.020 ± 0.012)

How To Order

FBC1206

Series

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121

Impedance Values

Standard termination finish for this product is 100% matte Tin (Sn)

H

L: Low Impedance at 10MHz
H: High Impedance at 10MHz.

E

Packaging
E: Embossed Tape
P: Paper Tape

All components in this section are RoHS compliant per the EU directives and definitions.

Standard Part Numbers & Data

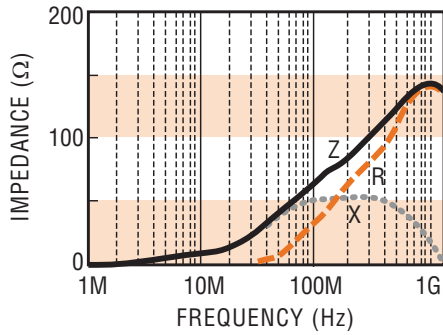
FBC 'L' SERIES DATA TABLE				
Series Part Number	Thickness (mm)	Impedance (Ω) \pm 25% (at 100MHz)	DC resistance (Ω) max.	Rated current (mA) max.
FBC 0402-600L <input type="checkbox"/>	0.80 \pm 0.15	60	0.1	1000
FBC 0603-600L <input type="checkbox"/>	0.80 \pm 0.15	60	0.1	1000
FBC 0603-121L <input type="checkbox"/>	0.80 \pm 0.15	120	0.15	750
FBC 0603-221L <input type="checkbox"/>	0.80 \pm 0.15	220	0.15	750
FBC 0805-600L <input type="checkbox"/>	0.90 \pm 0.2	60	0.03	3000
FBC 0805-121L <input type="checkbox"/>	0.90 \pm 0.2	120	0.05	2500
FBC 0805-221L <input type="checkbox"/>	0.90 \pm 0.2	220	0.05	2000
FBC 0805-301L <input type="checkbox"/>	0.90 \pm 0.2	300	0.07	2000
FBC 0805-471L <input type="checkbox"/>	0.90 \pm 0.2	470	0.07	2000
FBC 0805-601L <input type="checkbox"/>	0.90 \pm 0.2	600	0.10	1000
FBC 1206-300L <input type="checkbox"/>	1.1 \pm 0.2	30	0.02	3000
FBC 1206-500L <input type="checkbox"/>	1.1 \pm 0.2	50	0.02	3000
FBC 1206-121L <input type="checkbox"/>	1.1 \pm 0.2	120	0.03	3000
FBC 1206-241L <input type="checkbox"/>	1.1 \pm 0.2	240	0.05	2500
FBC 1206-301L <input type="checkbox"/>	1.1 \pm 0.2	300	0.05	2500
FBC 1206-471L <input type="checkbox"/>	1.1 \pm 0.2	470	0.05	2500
FBC 1206-601L <input type="checkbox"/>	1.1 \pm 0.2	600	0.05	2500
FBC 1806-400L <input type="checkbox"/>	1.6 \pm 0.2	40	0.02	3000
FBC 1806-800L <input type="checkbox"/>	1.6 \pm 0.2	80	0.02	3000
FBC 1806-121L <input type="checkbox"/>	1.6 \pm 0.2	120	0.03	3000
FBC 1806-221L <input type="checkbox"/>	1.6 \pm 0.2	220	0.04	2500
FBC 1806-301L <input type="checkbox"/>	1.6 \pm 0.2	300	0.04	2500
FBC 1806-471L <input type="checkbox"/>	1.6 \pm 0.2	470	0.04	2500
FBC 1806-601L <input type="checkbox"/>	1.6 \pm 0.2	600	0.04	2500
FBC 1812-300L <input type="checkbox"/>	1.5 \pm 0.2	30	0.02	3000
FBC 1812-121L <input type="checkbox"/>	1.5 \pm 0.2	120	0.03	3000
FBC 1812-471L <input type="checkbox"/>	1.5 \pm 0.2	470	0.04	3000

Venkel Ltd. may also be able to provide custom products to meet specific customer needs. Please consult your sales representative.

High Current Ferrite Beads

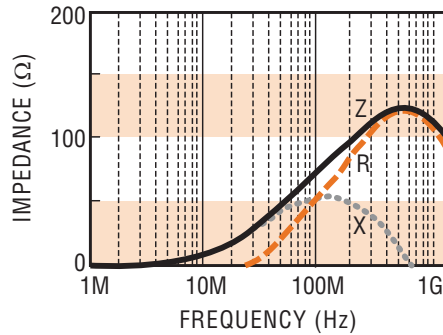
FBC 0402 'L' SERIES

FBC0402-600L



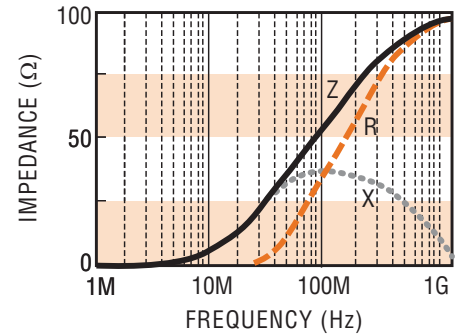
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FBC0603-600L

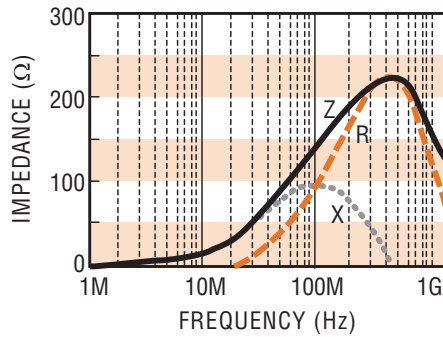


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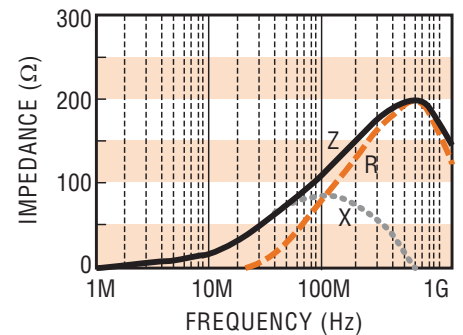
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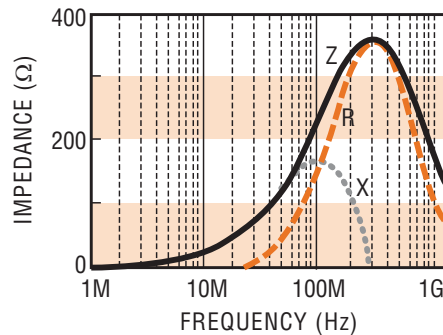
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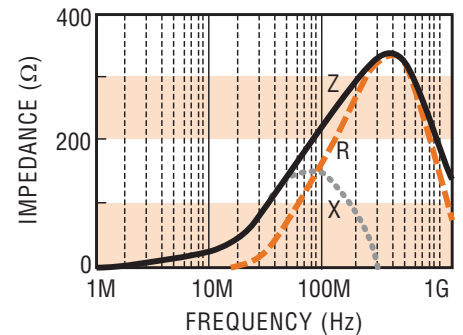
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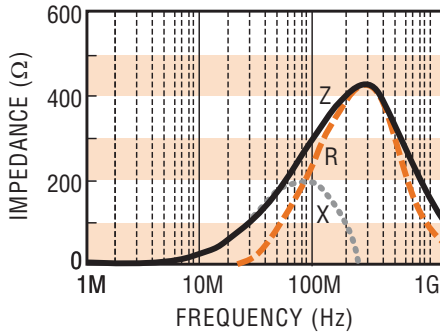


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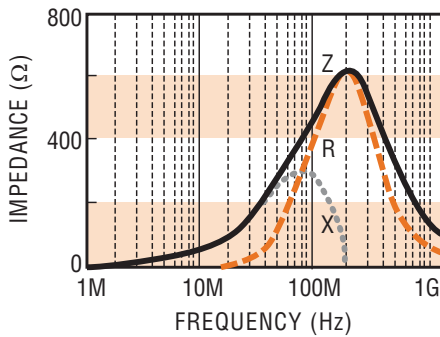


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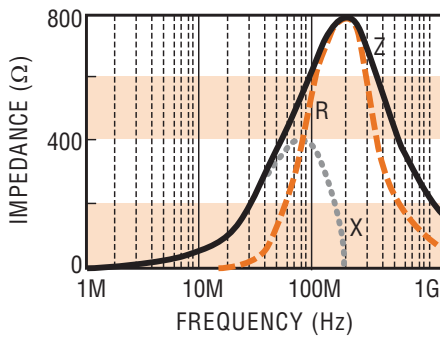
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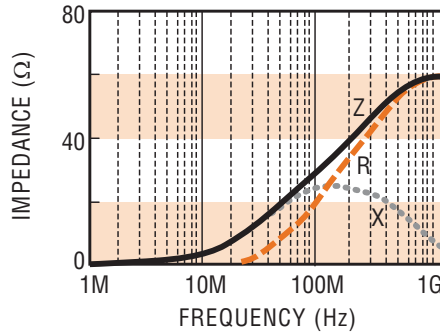


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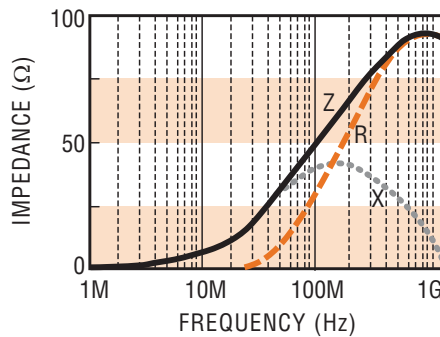


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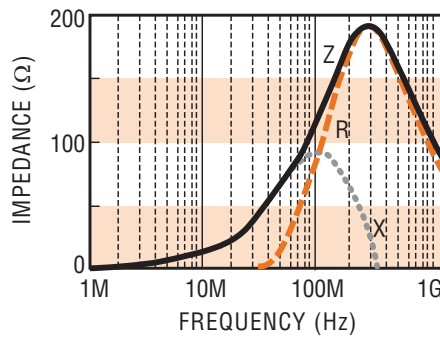
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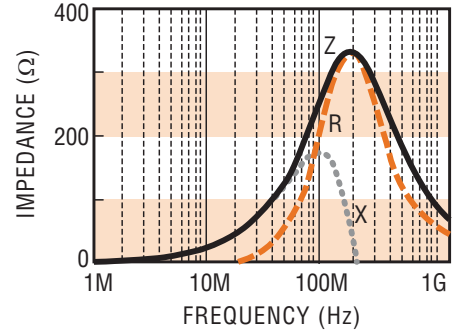
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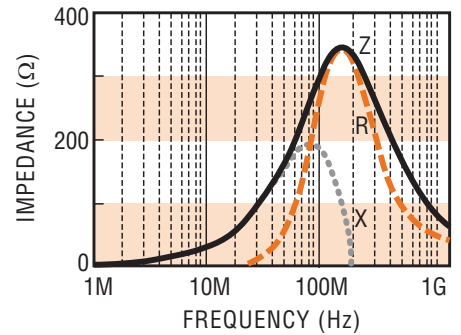
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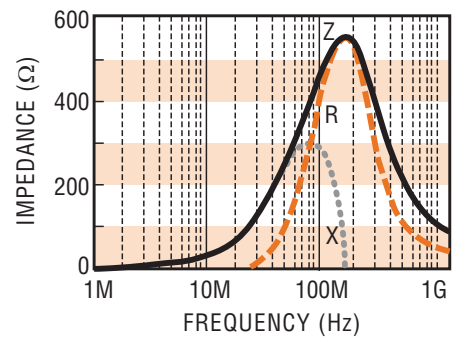
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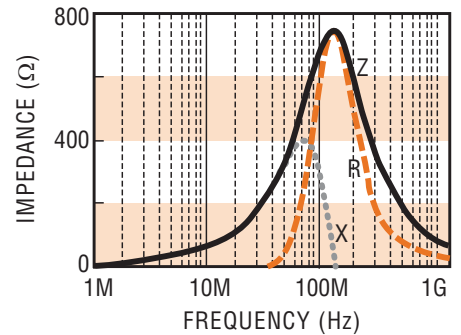
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FBC1206-471L



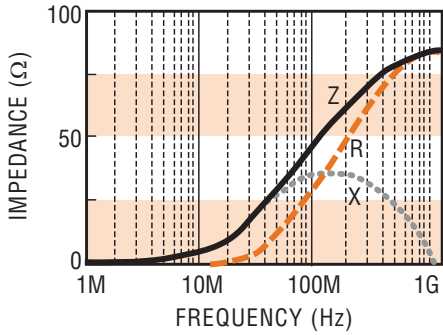
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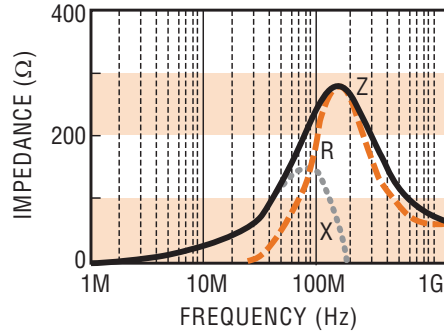
High Current Ferrite Beads

FBC 1806 'L' SERIES

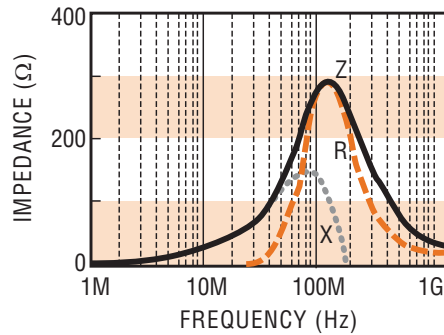
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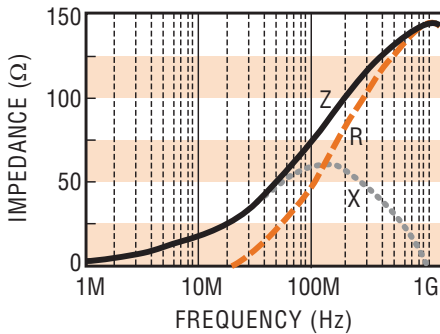
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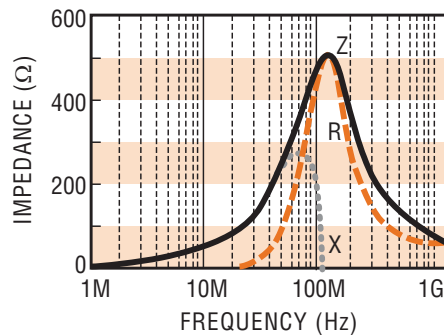
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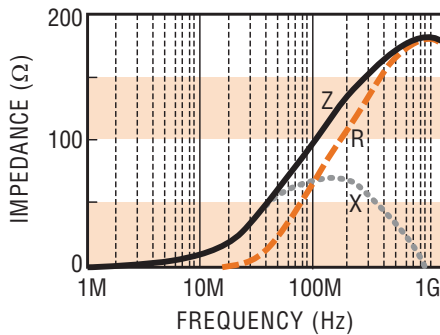
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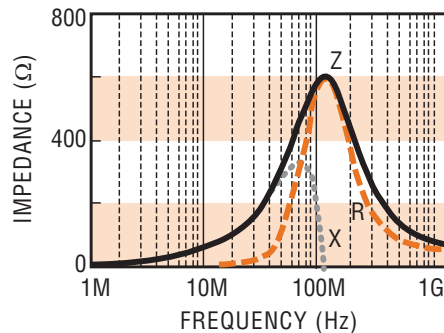
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FBC1806-121L

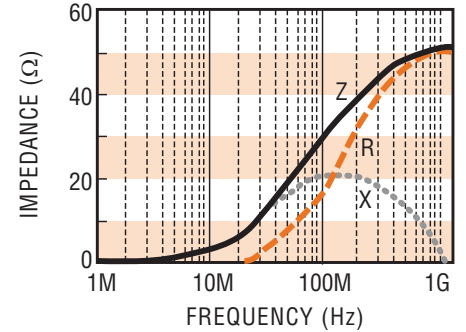


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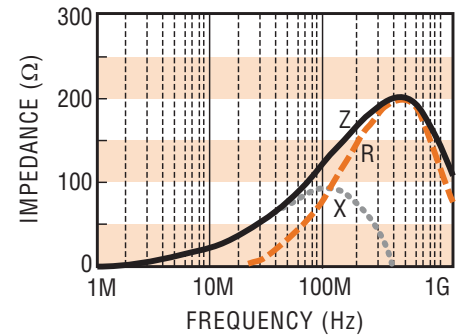


FBC 1812 'L' SERIES

FBC1812-300L

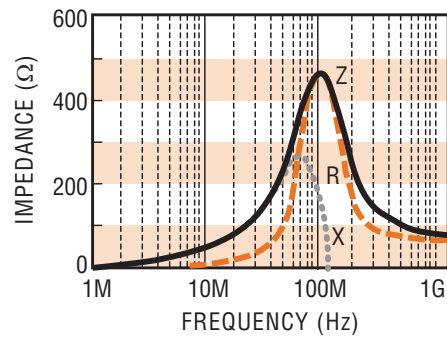


FBC1812-121L



FBC 1812 'L' SERIES

FBC1812-471L□



High Current Ferrite Beads

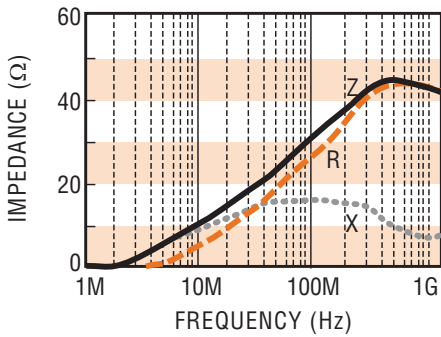
Standard Part Numbers & Data

FBC 'H' SERIES DATA TABLE				
Series Part Number	Thickness (mm)	Impedance (Ω) \pm 25% (at 100MHz)	DC resistance (Ω) max.	Rated current (mA) max.
FBC 0402-300H □	0.80 \pm 0.15	30	0.05	1000
FBC 0603-300H □	0.80 \pm 0.15	30	0.10	1000
FBC 0603-600H □	0.80 \pm 0.15	60	0.10	1000
FBC 0603-121H □	0.80 \pm 0.15	120	0.15	750
FBC 0603-221H □	0.80 \pm 0.15	220	0.15	750
FBC 0805-110H □	0.90 \pm 0.2	11	0.05	3000
FBC 0805-300H □	0.90 \pm 0.2	30	0.05	3000
FBC 0805-600H □	0.90 \pm 0.2	60	0.05	2500
FBC 0805-121H □	0.90 \pm 0.2	120	0.05	2500
FBC 0805-221H □	0.90 \pm 0.2	220	0.05	2000
FBC 1206-300H □	1.1 \pm 0.2	30	0.03	3000
FBC 1206-500H □	1.1 \pm 0.2	50	0.05	3000
FBC 1206-121H □	1.1 \pm 0.2	120	0.05	2500
FBC 1206-221H □	1.1 \pm 0.2	220	0.05	2000
FBC 1206-301H □	1.1 \pm 0.2	300	0.05	2000
FBC 1206-471H □	1.1 \pm 0.2	470	0.07	2000
FBC 1806-600H □	1.6 \pm 0.2	60	0.02	3000
FBC 1806-800H □	1.6 \pm 0.2	80	0.03	3000
FBC 1806-121H □	1.6 \pm 0.2	120	0.05	2500
FBC 1806-221H □	1.6 \pm 0.2	220	0.05	2000
FBC 1806-301H □	1.6 \pm 0.2	300	0.05	2000
FBC 1806-471H □	1.6 \pm 0.2	470	0.05	2000
FBC 1806-601H □	1.6 \pm 0.2	600	0.07	1500
FBC 1812-300H □	1.5 \pm 0.2	30	0.03	3000
FBC 1812-700H □	1.5 \pm 0.2	70	0.03	3000
FBC 1812-121H □	1.5 \pm 0.2	120	0.03	3000
FBC 1812-221H □	1.5 \pm 0.2	220	0.05	2000
FBC 1812-301H □	1.5 \pm 0.2	300	0.04	3000
FBC 1812-471H □	1.5 \pm 0.2	470	0.03	2000

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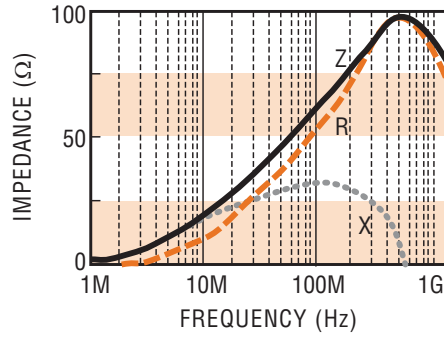
FBC 0402 'H' SERIES

FBC0402-300H



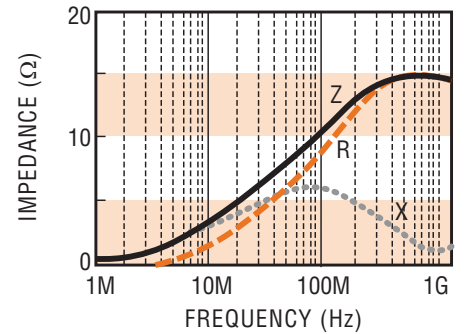
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FBC0603-600H



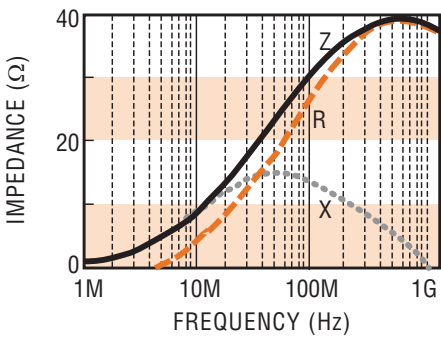
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FBC0805-110H

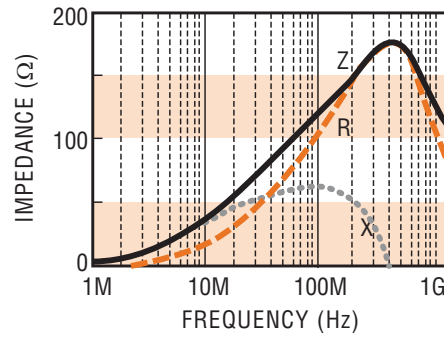


FBC 0603 'H' SERIES

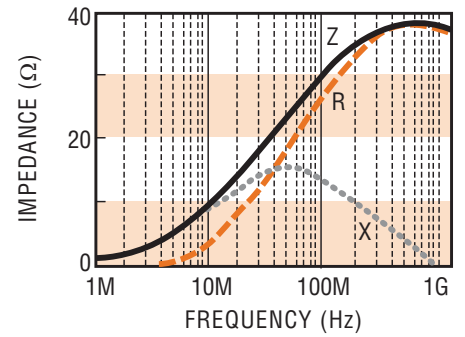
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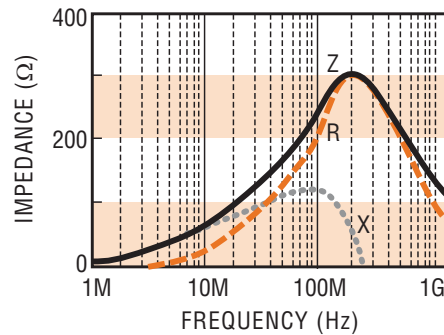
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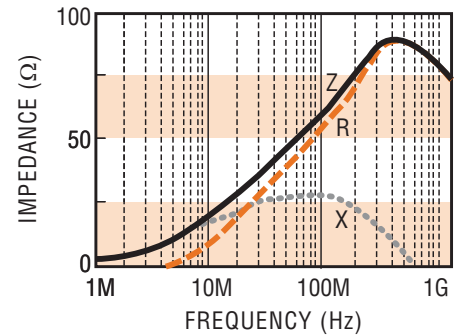
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FBC0603-221H



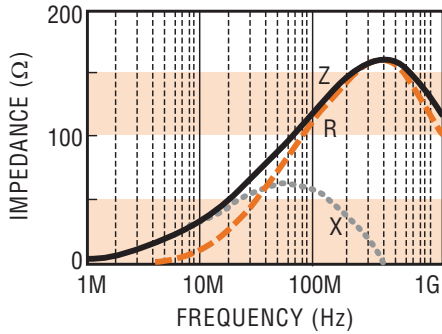
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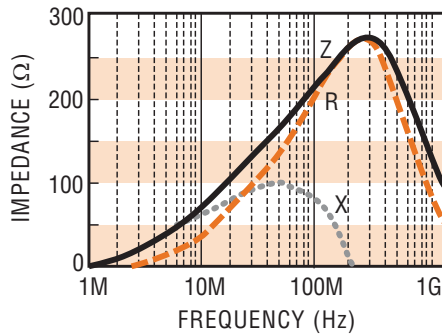
High Current Ferrite Beads

FBC 0805 'H' SERIES

FBC0805-121H

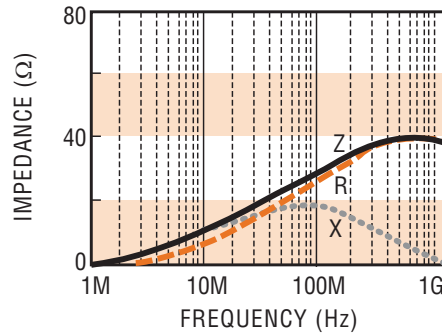


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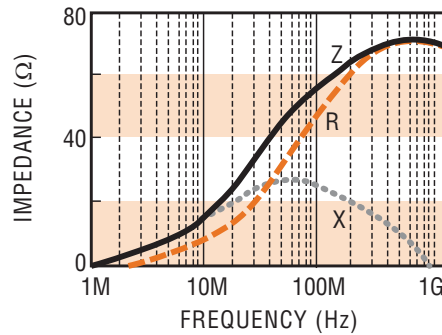


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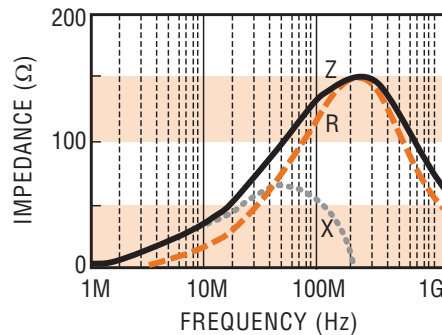
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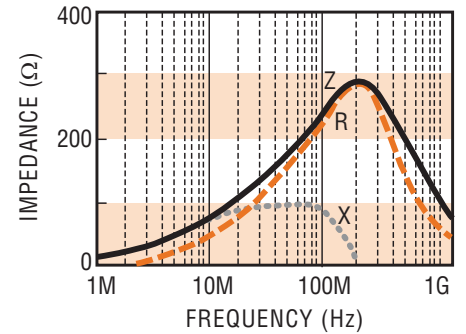
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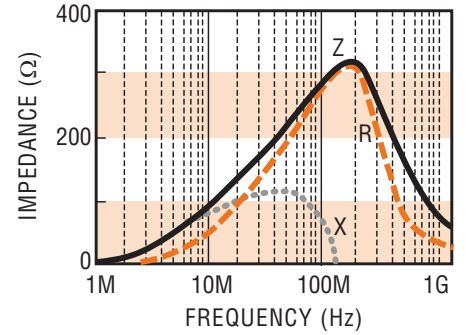
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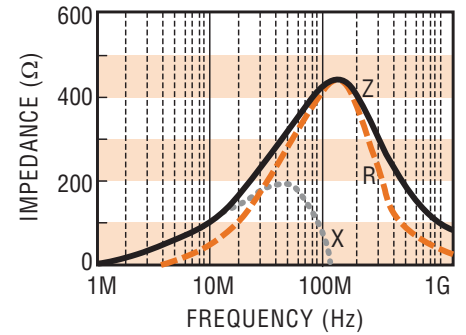
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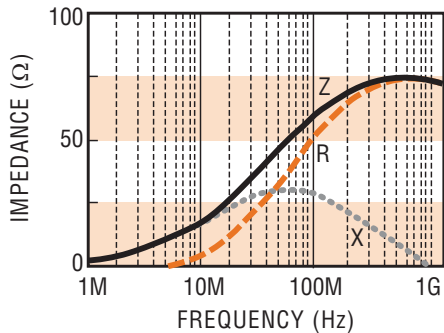


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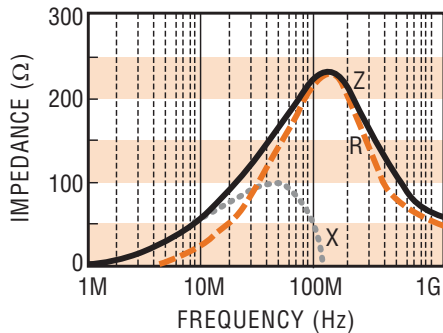


FBC 1806 'H' SERIES

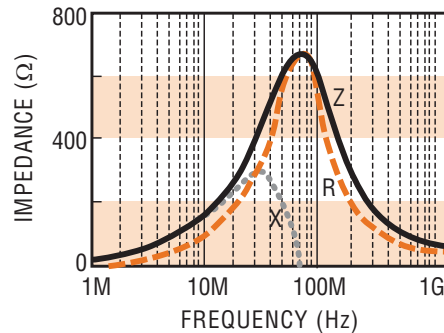
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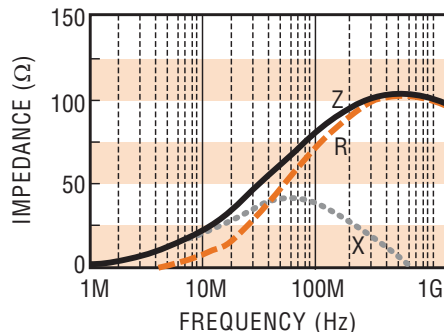
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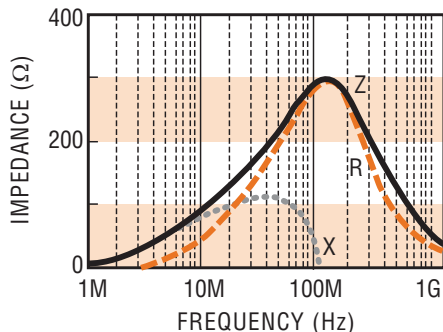
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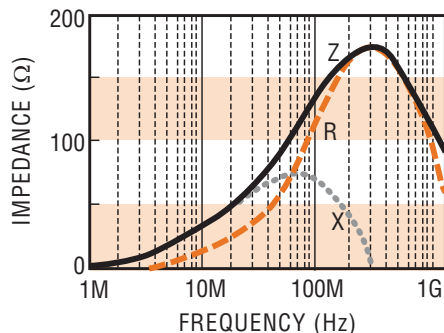
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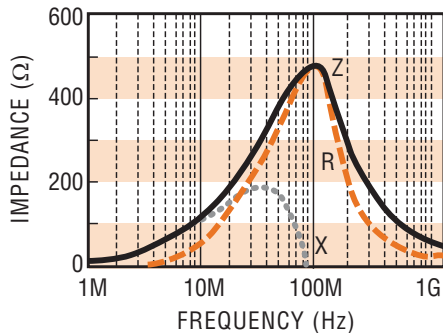
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FBC1806-121H □



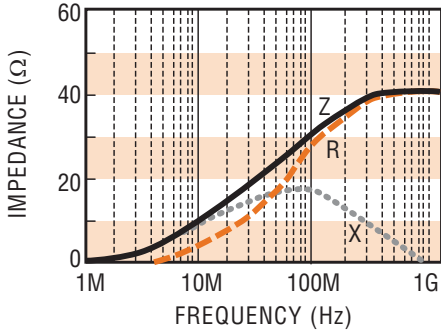
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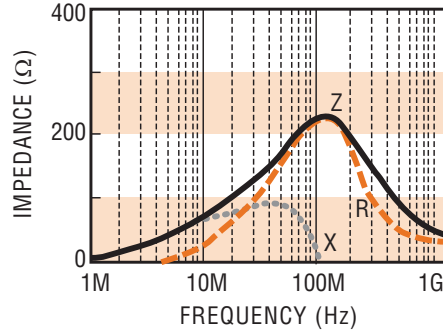
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FBC 1812 'H' SERIES

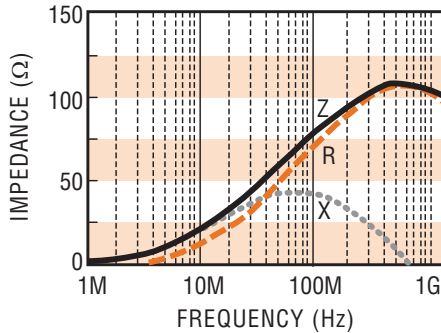
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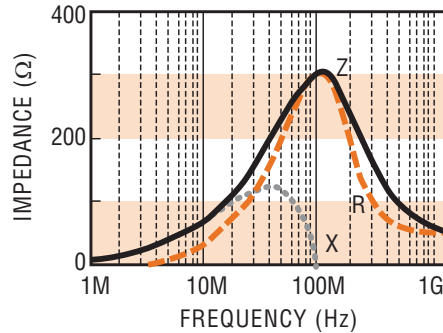
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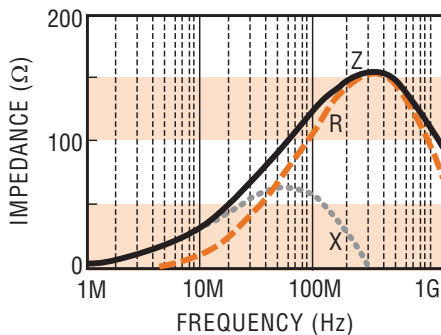
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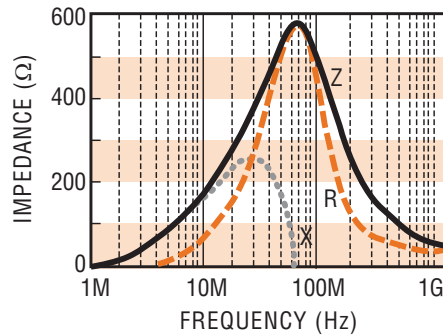
FBC1812-301H □



FBC1812-121H □



FBC1812-471H □

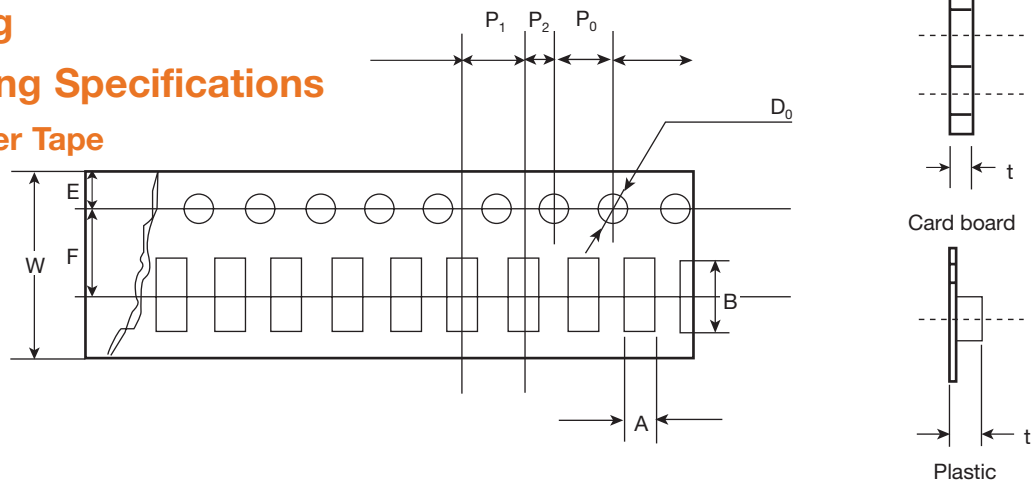


Ferrite Beads

Packaging

Taping Specifications

Carrier Tape

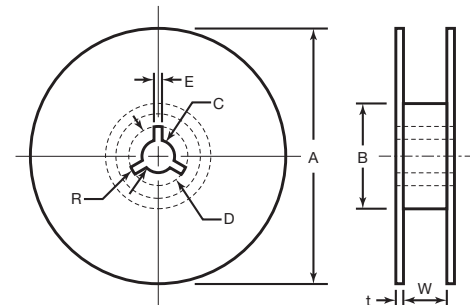


Type	0402	0603	0805	1206	1210	1806	1812
Tape	Paper	Paper	Embossed	Embossed	Embossed	Embossed	Embossed
W	8.0 ± 0.2	8.0 ± 0.2	8.0 ± 0.2	8.0 ± 0.2	8.0 ± 0.2	12.0 ± 0.2	12.0 ± 0.2
F	3.5 ± 0.05	3.5 ± 0.05	3.5 ± 0.05	3.5 ± 0.05	3.5 ± 0.05	5.5 ± 0.05	5.5 ± 0.05
E	1.75 ± 0.1	1.75 ± 0.1	1.75 ± 0.1	1.75 ± 0.1	1.75 ± 0.1	1.75 ± 0.1	1.75 ± 0.1
P ₁	2.0 ± 0.05	4.0 ± 0.1	4.0 ± 0.2	4.0 ± 0.2	4.0 ± 0.1	8.0 ± 0.1	8.0 ± 0.1
P ₂	1.0 ± 0.05	2.0 ± 0.05	2.0 ± 0.05	2.0 ± 0.05	2.0 ± 0.05	2.0 ± 0.05	2.0 ± 0.05
P ₀	4.0 ± 0.1	4.0 ± 0.1	4.0 ± 0.1	4.0 ± 0.1	4.0 ± 0.1	4.0 ± 0.1	4.0 ± 0.1
D ₀	∅ 1.55 ± 0.1	∅ 1.55 ± 0.1	∅ 1.55 ± 0.1	∅ 1.55 ± 0.1	∅ 1.55 ± 0.1	∅ 1.55 ± 0.1	∅ 1.55 ± 0.1
A	0.65 ± 0.1	1.0 ± 0.2	8.45 ± 0.1	1.90 ± 0.1	2.90 ± 0.1	4.9 ± 0.2	4.85 ± 0.1
B	1.15 ± 0.1	1.8 ± 0.2	2.3 ± 0.1	3.5 ± 0.1	3.6 ± 0.1	1.9 ± 0.2	3.5 ± 0.1
t	0.8 max.	1.0 ± 0.1	1.15 ± 0.1	1.137 ± 0.1	1.55 ± 0.1	1.78 ± 0.2	1.75 ± 0.1
EA/Reel	10,000	4,000	4,000	3,000	2,500	2,000	1,000

Unit: mm (inch)

Tape	8mm	12mm
A	178 ± 2	178 ± 2
B	50 ± 1	50 ± 1
C	13.0 ± 0.5	13.0 ± 0.5
D	21.0 ± 0.8	21.0 ± 0.8
E	2.0 ± 0.5	2.0 ± 0.5
W	10.0 ± 1.0	14.0 ± 1.0
t	1.2 ± 0.5	2.0 ± 0.5
R	1.0	1.0

Reel



All components in this section are RoHS compliant per the EU directives and definitions.

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