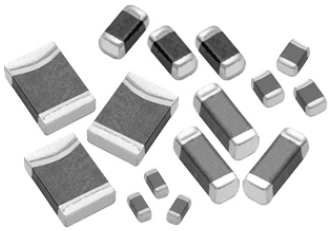
High Current Multilayer Ferrite Beads



FEATURES

- High reliability
- Surface mountable (multiple case sizes)
- Current rating up to 6 A
- Magnetically self shielded
- Nickel barrier plating virtually eliminates silver migration
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

Pb-free

RoHS COMPLIANT

HALOGEN FREE

MECHANICAL SPECIFICATIONS

Solderability: 90 % coverage after 5 s dip in 235 °C solder following 60 s preheat at 120 °C type R flux dip

Resistance to Solder Heat: 10 s in 260 °C solder, after preheat and flux per above

Terminal Strength: 0603: 0.3 kg (0.66 lbs), 0805: 0.6 kg (1.3 lbs), 1206: 1.0 kg (2.2 lbs), 1806: 1.0 kg (2.2 lbs), 1812: 1.5 kg (3.3 lbs) for 30 s

Beam Strength: 0603: 0.3 kg (0.66 lbs), 0805: 1.0 kg (2.2 lbs), 1206: 2.0 kg (4.4 lbs), 1806: 2.5 kg (5.5 lbs), 1812: 2.5 kg (5.5 lbs)

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature: -55 °C to +125 °C

Thermal Shock: 100 cycles, -40 °C to +125 °C

Biased Humidity: 85 % RH at 85 °C, 1000 h at full rated current

Voltage Rating: 100 V

STANDARD ELECTRICAL SPECIFICATIONS

PART NUMBER	Z ± 25 % (Ω)	TEST FREQUENCY (MHz)	DCR MAX. (Ω)	RATED DC CURRENT (mA)
ILHB0603ER600V	60	100	0.04	3000
ILHB0603ER121V	120	100	0.04	3000
ILHB0805ER300V	30	100	0.015	6000
ILHB0805ER600V	60	100	0.040	3000
ILHB0805ER900V	90	100	0.020	5000
ILHB0805ER121V	120	100	0.020	5000
ILHB0805ER251V	250	100	0.040	3000
ILHB0805ER601V	600	100	0.090	2000
ILHB1206ER500V	50	100	0.015	6000
ILHB1206ER750V	75	100	0.040	3000
ILHB1206ER121V	120	100	0.015	6000
ILHB1206ER501V	500	100	0.070	2500
ILHB1206ER601V	600	100	0.070	2500
ILHB1806ER600V	60	100	0.015	6000
ILHB1812ER121V	120	100	0.015	6000
ILHB1812ER601V	600	50	0.04	3000
ILHB1812ER132V	1300	60	0.04	3000

DESCRIPTION

ILHB	1206	120 Ω	± 25 %	ER	e3
MODEL	SIZE	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	PACKAGE CODE	JEDEC® LEAD (Pb)-FREE STANDARD

GLOBAL PART NUMBER

I L H B	1 2 0 6	E R	1 2 1	V
PRODUCT FAMILY	SIZE	PACKAGE CODE	INDUCTANCE VALUE	INDUCTANCE TOLERANCE
		ER = tape and reel	**121** = 120 Ω	**V** = ± 25 %

For technical questions, contact: magnetics@vishay.com

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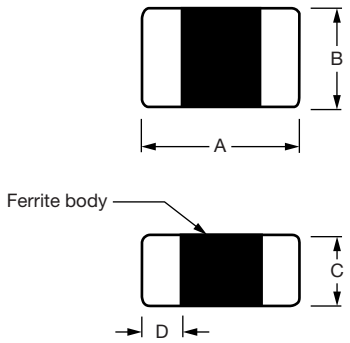
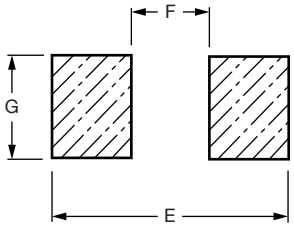
DIMENSIONS in inches [millimeters]



Dimensional outline



Suggested pad layout

SIZE	A	B	C	D	E	F	G
0603	0.06 ± 0.006 [1.6 ± 0.15]	0.03 ± 0.006 [0.8 ± 0.15]	0.03 ± 0.006 [0.8 ± 0.15]	0.012 ± 0.008 [0.30 ± 0.20]	0.071 to 0.079 [1.8 to 2.0]	0.028 [0.7]	0.028 [0.7]
0805	0.079 ± 0.008 [2.0 ± 0.20]	0.049 ± 0.008 [1.25 ± 0.20]	0.035 ± 0.008 [0.90 ± 0.20]	0.02 ± 0.012 [0.50 ± 0.30]	0.118 to 0.157 [3.0 to 4.0]	0.047 [1.2]	0.039 [1.0]
1206	0.126 ± 0.008 [3.2 ± 0.20]	0.063 ± 0.008 [1.6 ± 0.2]	0.043 ± 0.008 [1.1 ± 0.2]	0.020 ± 0.012 [0.50 ± 0.30]	0.165 to 0.205 [4.2 to 5.2]	0.079 [2.0]	0.047 [1.2]
1806	0.177 ± 0.010 [4.5 ± 0.25]	0.063 ± 0.008 [1.6 ± 0.2]	0.063 ± 0.008 [1.6 ± 0.2]	0.024 ± 0.016 [0.60 ± 0.40]	0.217 to 0.256 [5.5 to 6.5]	0.118 [3.0]	0.047 [1.2]
1812	0.177 ± 0.010 [4.5 ± 0.25]	0.126 ± 0.010 [3.2 ± 0.25]	0.060 ± 0.010 [1.5 ± 0.25]	0.024 ± 0.016 [0.60 ± 0.40]	0.217 to 0.256 [5.5 to 6.5]	0.118 [3.0]	0.166 [4.22}

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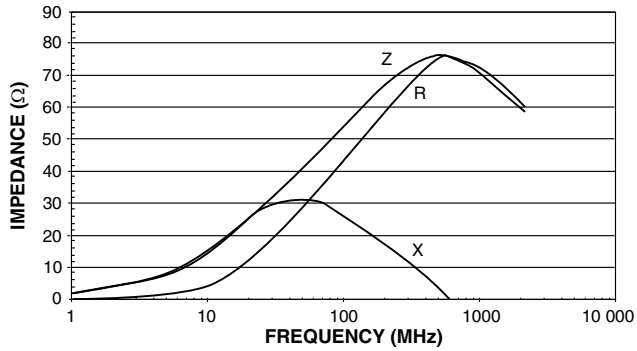
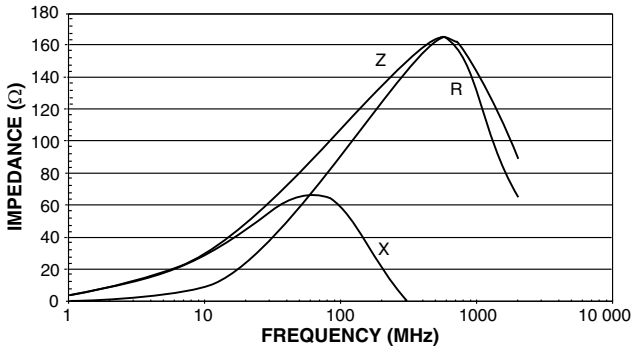
TYPICAL CURVES (Frequency Characteristics of R, X, and Z)

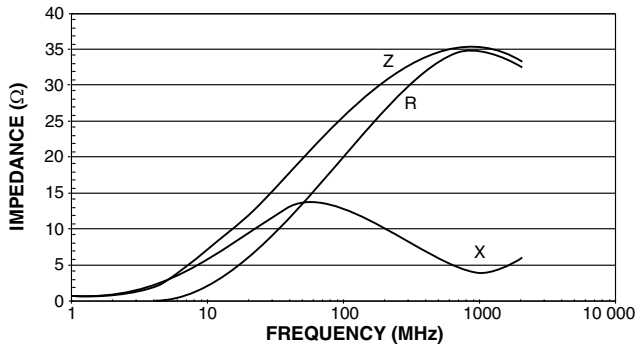
ILHB-0603 60 Ω



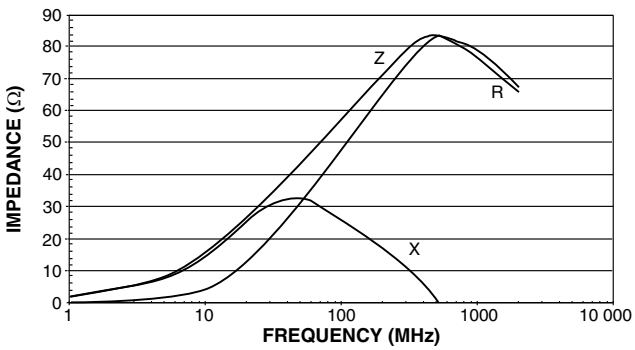
ILHB-0603 120 Ω



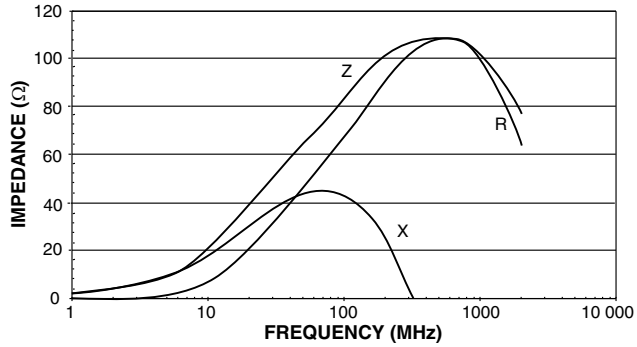
ILHB-0805 30 Ω



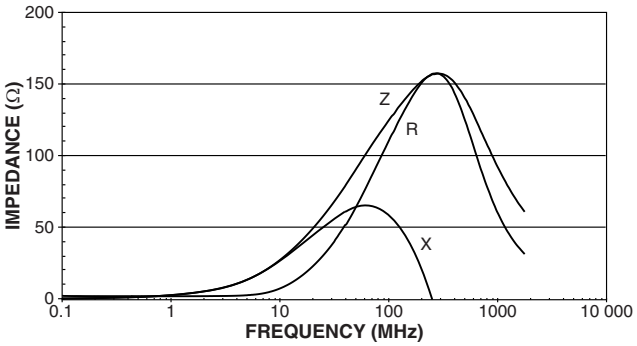
ILHB-0805 60 Ω



ILHB-0805 90 Ω



ILHB-0805 120 Ω



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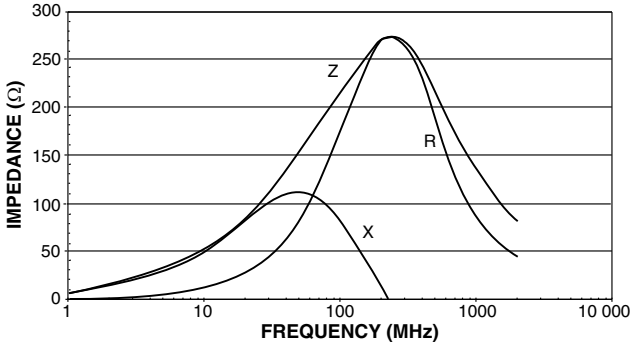

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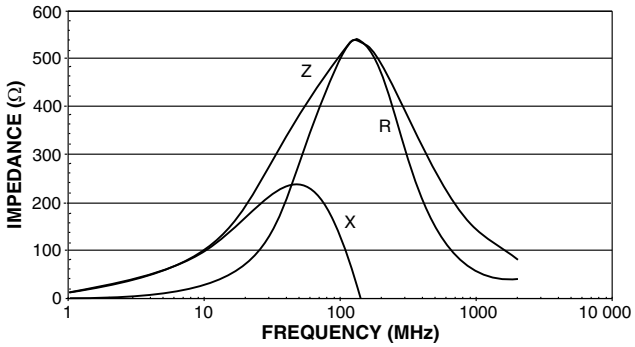

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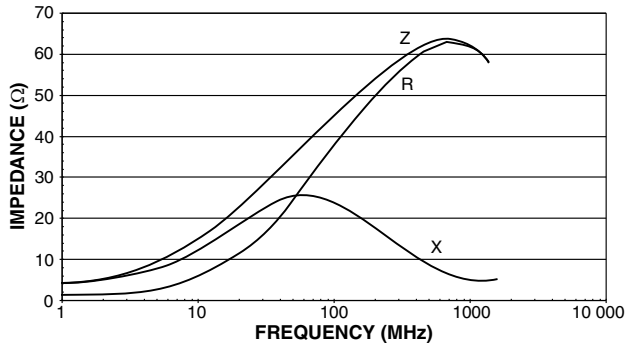
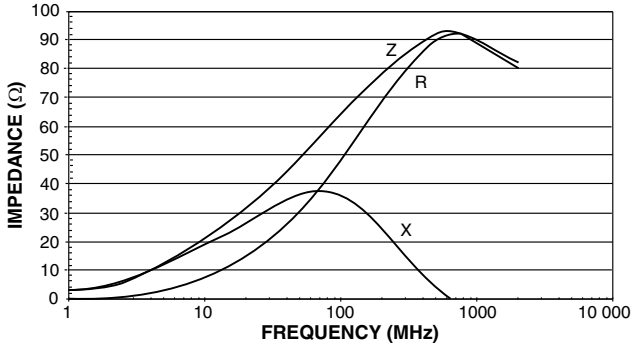
TYPICAL CURVES (Frequency Characteristics of R, X, and Z)

ILHB-1206 50 Ω



ILHB-1206 75 Ω



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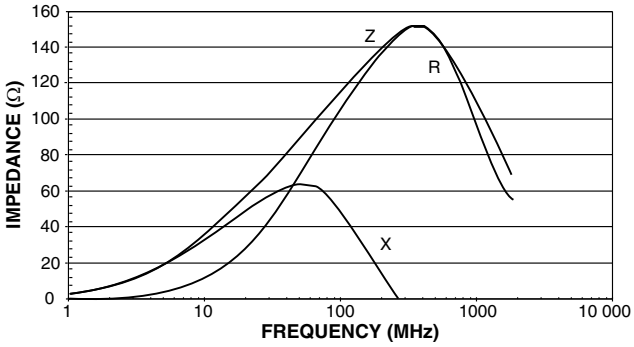

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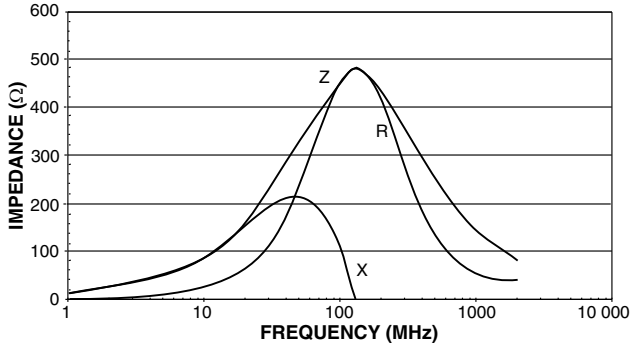
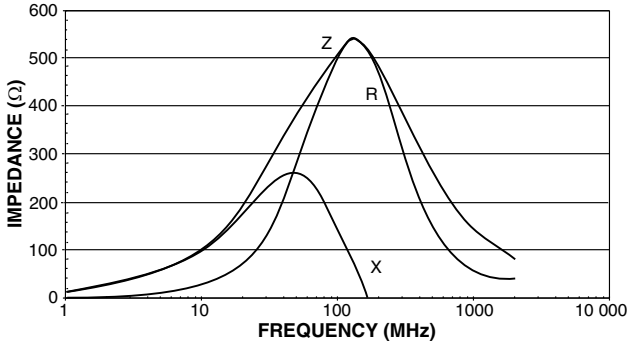
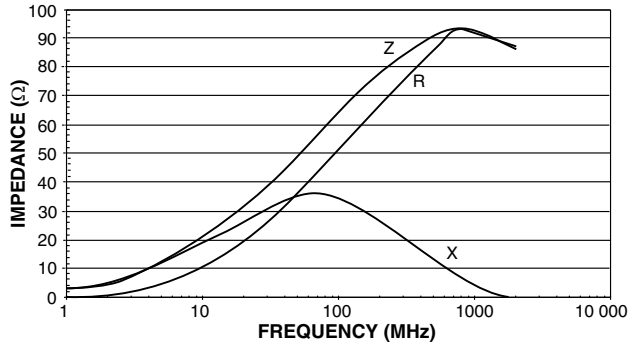


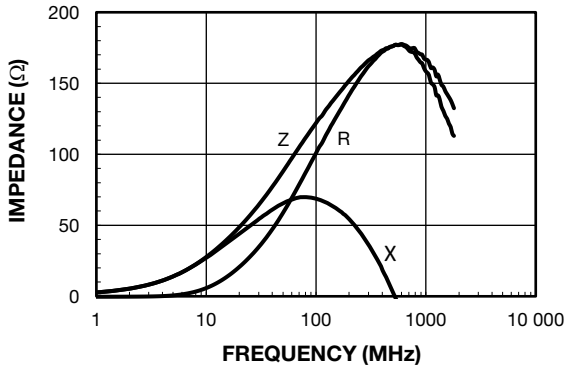
ILHB-1206 600 Ω



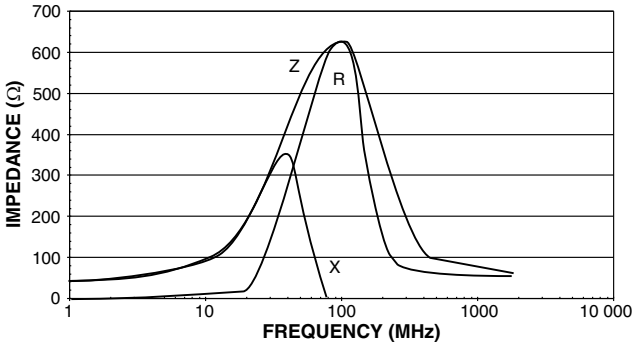
ILHB-1806 60 Ω



ILHB-1812 120 Ω



ILHB-1812 600 Ω



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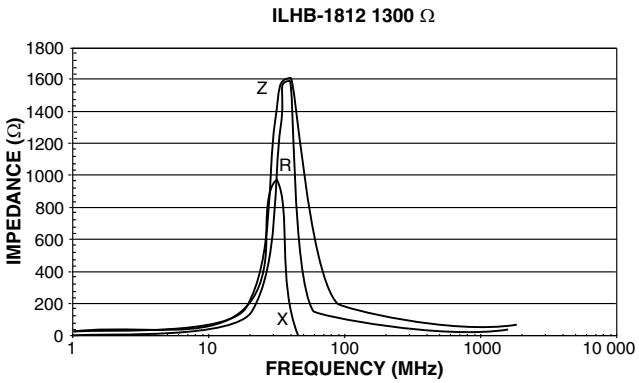

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