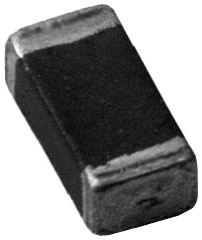
Multilayer Ferrite Beads



FEATURES

- High reliability
- Surface mountable
- Magnetically self shielded
- Nickel barrier plating virtually eliminates silver migration
- Compliant to RoHS Directive 2002/95/EC
- Halogen-free according to IEC 61249-2-21 definition

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 to 150 °C and type R flux dip

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

Terminal Strength: 1.0 kg (2.2 lbs) minimum for 30 s

Beam Strength: 2.0 kg (4.4 lbs) minimum

ENVIRONMENTAL SPECIFICATIONS

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

Thermal Shock: 300 cycles, - 40 °C to + 125 °C

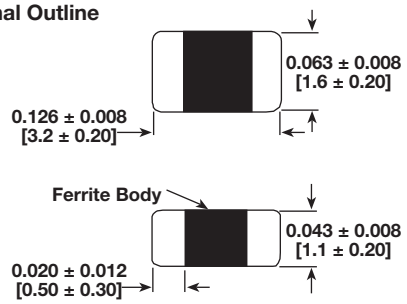
Biased Humidity: 85 % RH at 85 °C, 1000 h at full rated current

STANDARD ELECTRICAL SPECIFICATIONS

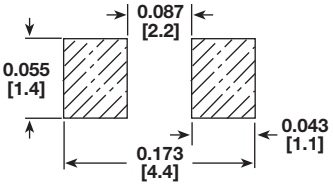
Z ± 25 % AT 100 MHz (Ω)	FREQUENCY (MHz)	DCR MAX. (Ω)	RATED DC CURRENT (mA)
19	100	0.05	500
26	100	0.05	500
31	100	0.05	500
50	100	0.10	600
60	100	0.10	600
70	100	0.10	600
80	100	0.20	400
90	100	0.20	400
100	100	0.20	400
120	100	0.20	400
150	100	0.20	300
200	100	0.20	300
300	100	0.30	300
500	100	0.30	200
600	100	0.30	200
800	100	0.30	200
1000	100	0.40	200
1200	100	0.40	100
1500	50	0.50	100
2000	30	0.50	100

DIMENSIONS in inches [millimeters]

Dimensional Outline



Recommended Pad Layout



PACKAGING OPTIONS

- Bulk: 1000 pieces per plastic bag
- Tape and Reel: Paper carrier tape, 3000 pieces per reel

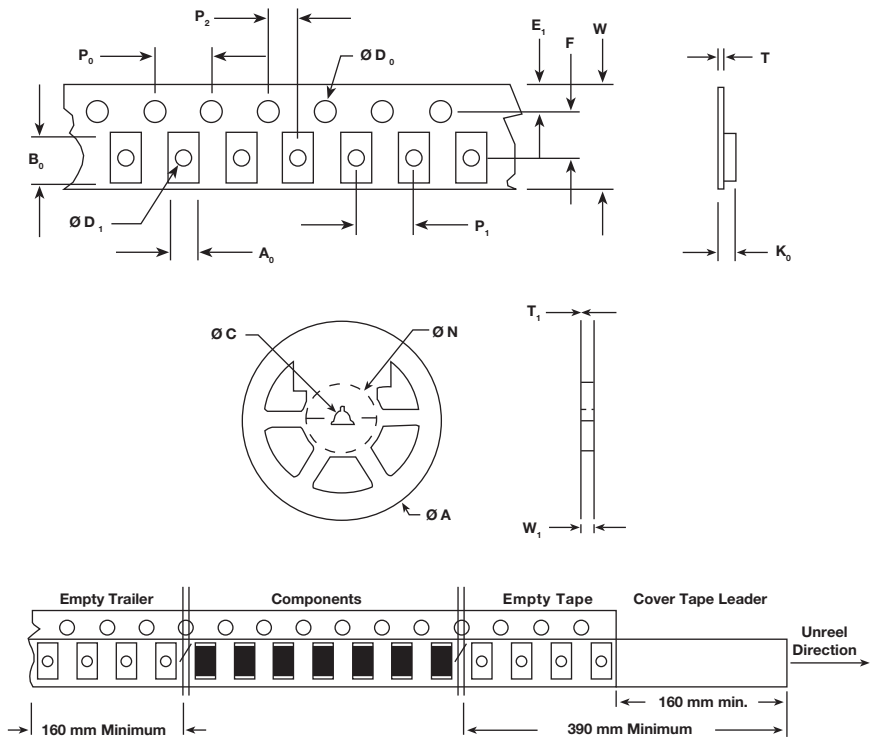
DESCRIPTION

ILB-1206	19 Ω	± 25 %	ER	e3
MODEL	IMPEDANCE VALUE	IMPEDANCE TOLERANCE	PACKAGE CODE	JEDEC LEAD (Pb)-FREE STANDARD

GLOBAL PART NUMBER

I	L	B	1	2	0	6	E	R	1	9	0	V
PRODUCT FAMILY			SIZE				PACKAGE CODE		IMPEDANCE VALUE			IMPEDANCE TROLERANCE

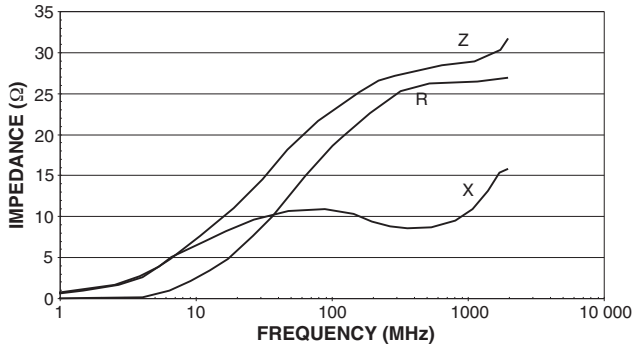
TAPE AND REEL SPECIFICATIONS in inches [millimeters]



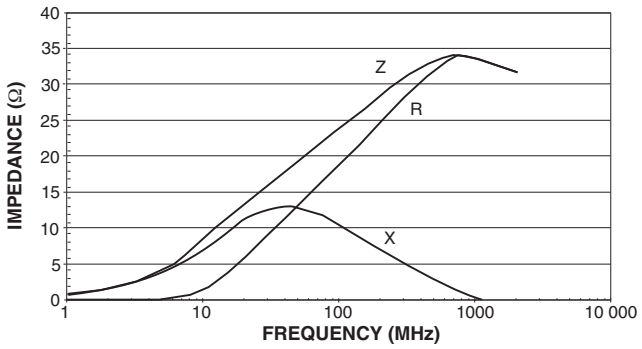
A_0	0.071 ± 0.008 [1.80 ± 0.2]
B_0	0.140 ± 0.006 [3.45 ± 0.15]
D_0	0.059 + 0.005/- 0.000 [1.5 + 0.127/- 0.0]
D_1	0.039 min. [1.0 min.]
E_1	0.069 ± 0.004 [1.75 ± 0.1]
F	0.138 ± 0.002 [3.50 ± 0.05]
K_0	0.049 ± 0.002 [1.24 ± 0.05]
P_0	0.157 ± 0.004 [4.00 ± 0.1]
P_1	0.157 ± 0.004 [4.00 ± 0.1]
P_2	0.079 ± 0.002 [2.00 ± 0.05]
W	0.327 max. [8.3 max.]
T	0.009 ± 0.002 [0.2 ± 0.05]
A	7.000 ± 0.079 [178 ± 2.0]
N	2.500 [63.5]
C	0.512 ± 0.020 [13.00 ± 0.5]
W_1	0.315 + 0.059/- 0.000 [8.00 + 1.5/- 0.0]
T_1	0.079 ± 0.002 [2.00 ± 0.05]

TYPICAL CURVES - Frequency Characteristics of R, X, and Z

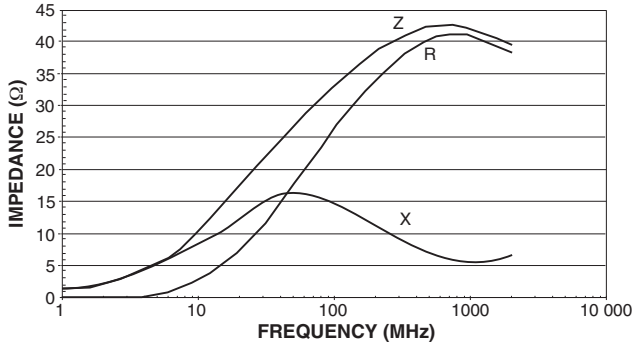
ILB-1206 19 Ω



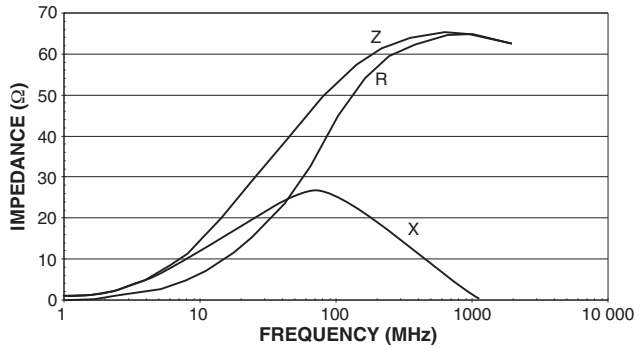
ILB-1206 26 Ω



ILB-1206 31 Ω

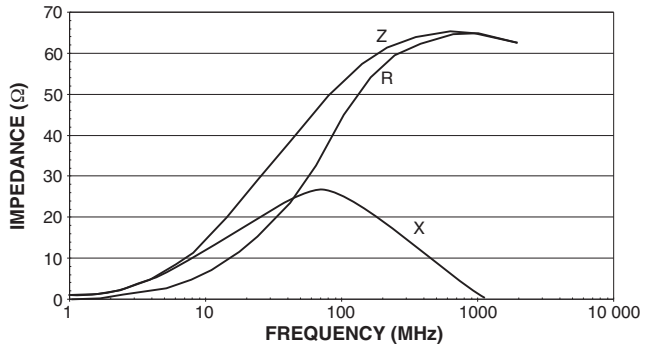


ILB-1206 50 Ω

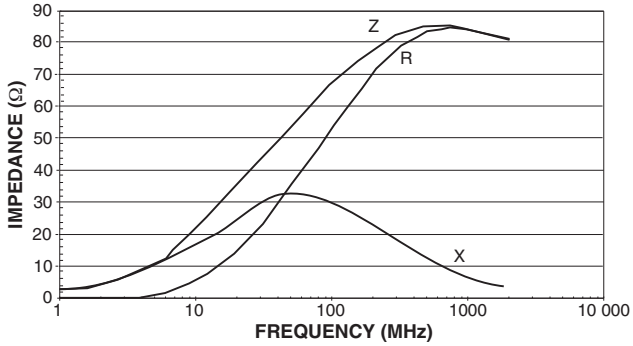


TYPICAL CURVES - Frequency Characteristics of R, X, and Z

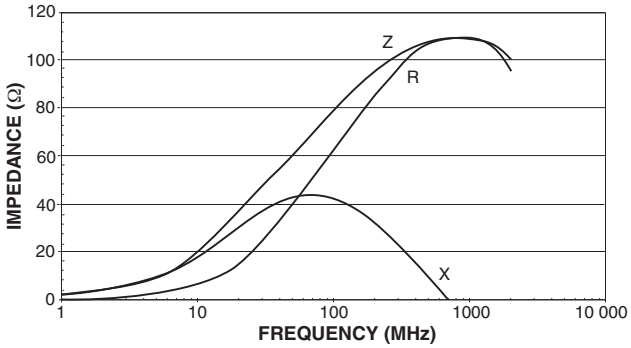
ILB-1206 60 Ω



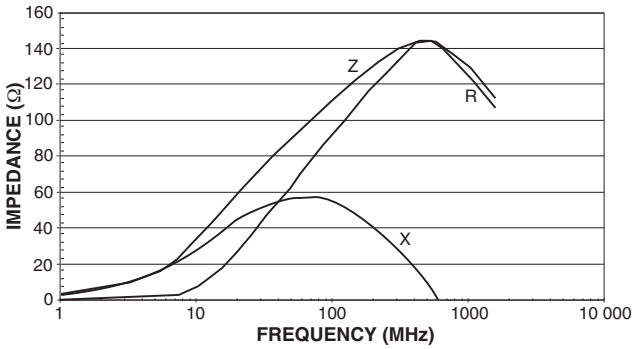
ILB-1206 70 Ω



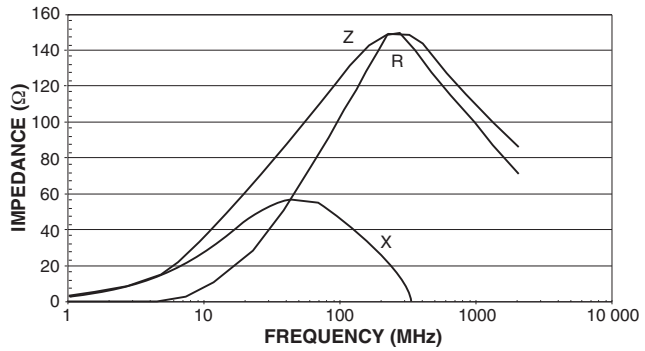
ILB-1206 80 Ω



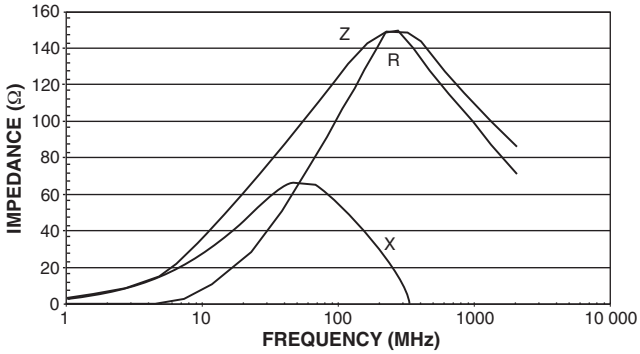
ILB-1206 90 Ω



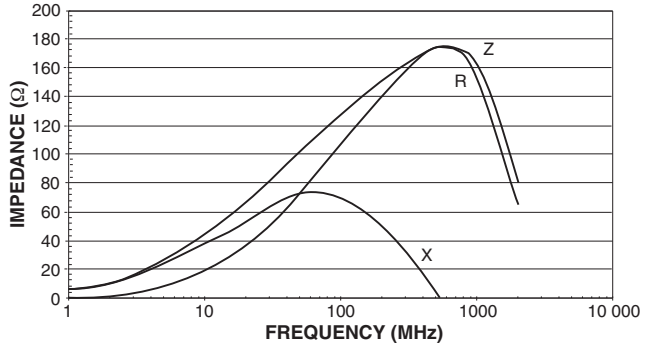
ILB-1206 100 Ω



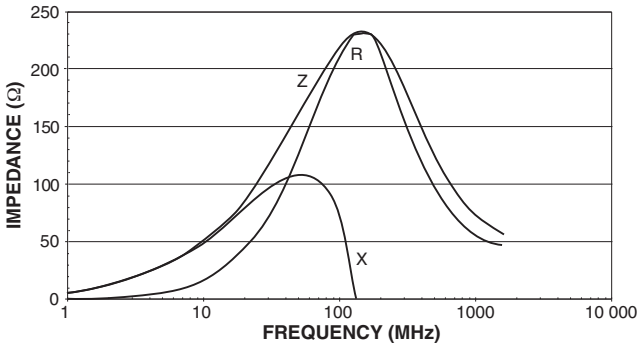
ILB-1206 120 Ω



ILB-1206 150 Ω

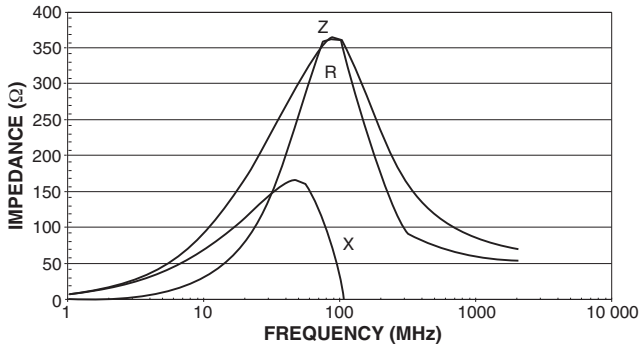


ILB-1206 200 Ω

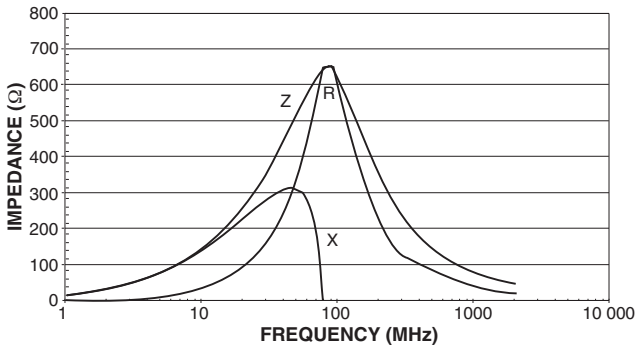


TYPICAL CURVES - Frequency Characteristics of R, X, and Z

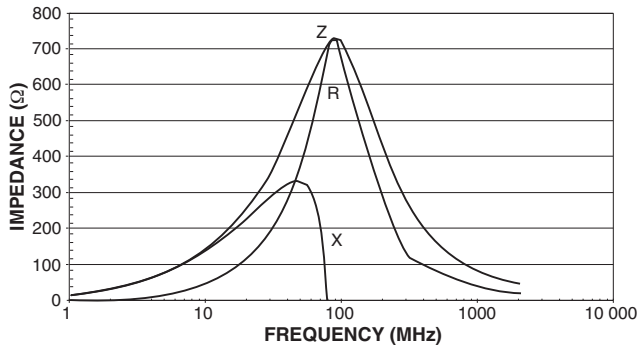
ILB-1206 300 Ω



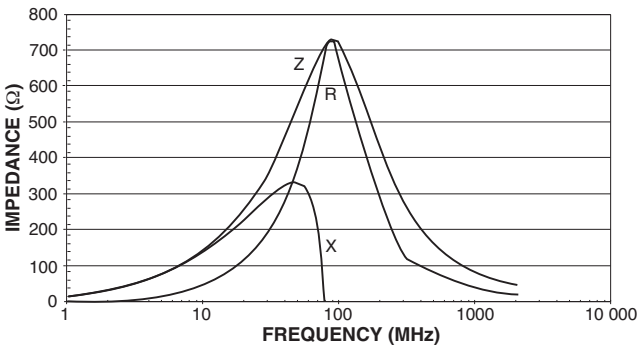
ILB-1206 500 Ω



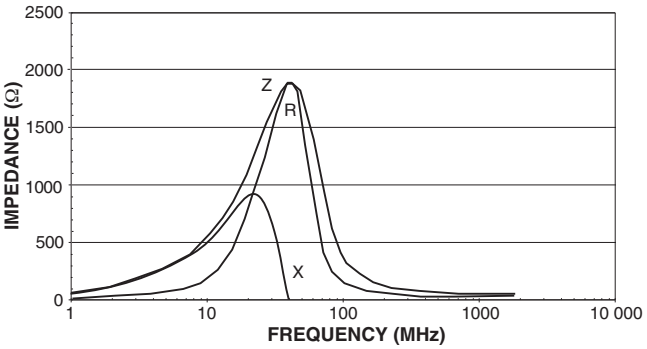
ILB-1206 600 Ω



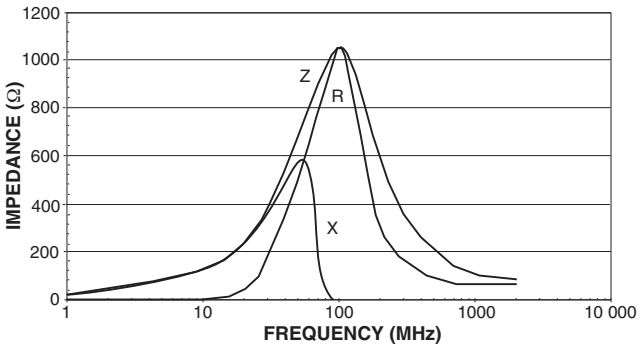
ILB-1206 800 Ω



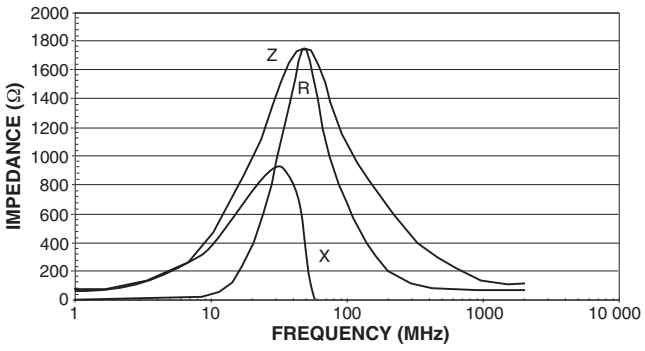
ILB-1206 1000 Ω



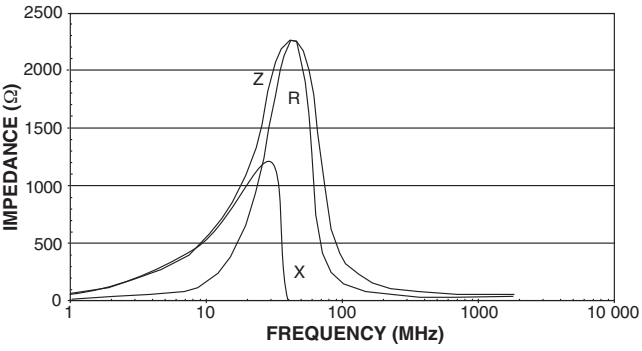
ILB-1206 1200 Ω



ILB-1206 1500 Ω



ILB-1206 2000 Ω



Disclaimer

ALL PRODUCT, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE TO IMPROVE RELIABILITY, FUNCTION OR DESIGN OR OTHERWISE.

Vishay Intertechnology, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, “Vishay”), disclaim any and all liability for any errors, inaccuracies or incompleteness contained in any datasheet or in any other disclosure relating to any product.

Vishay makes no warranty, representation or guarantee regarding the suitability of the products for any particular purpose or the continuing production of any product. To the maximum extent permitted by applicable law, Vishay disclaims (i) any and all liability arising out of the application or use of any product, (ii) any and all liability, including without limitation special, consequential or incidental damages, and (iii) any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.

Statements regarding the suitability of products for certain types of applications are based on Vishay’s knowledge of typical requirements that are often placed on Vishay products in generic applications. Such statements are not binding statements about the suitability of products for a particular application. It is the customer’s responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Parameters provided in datasheets and/or specifications may vary in different applications and performance may vary over time. All operating parameters, including typical parameters, must be validated for each customer application by the customer’s technical experts. Product specifications do not expand or otherwise modify Vishay’s terms and conditions of purchase, including but not limited to the warranty expressed therein.

Except as expressly indicated in writing, Vishay products are not designed for use in medical, life-saving, or life-sustaining applications or for any other application in which the failure of the Vishay product could result in personal injury or death. Customers using or selling Vishay products not expressly indicated for use in such applications do so at their own risk and agree to fully indemnify and hold Vishay and its distributors harmless from and against any and all claims, liabilities, expenses and damages arising or resulting in connection with such use or sale, including attorneys fees, even if such claim alleges that Vishay or its distributor was negligent regarding the design or manufacture of the part. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Vishay. Product names and markings noted herein may be trademarks of their respective owners.