

High Current Multilayer Ferrite Beads



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)

STANDARD ELECTRICAL SPECIFICATIONS

| PART NUMBER | Z ± 25 % (Ω) | TEST FREQUENCY (MHz) | DCR MAX. (Ω) | RATED DC CURRENT (mA) |
|-------------|--------------|----------------------|--------------|-----------------------|
| ILHB-0603 | 60 | 100 | 0.10 | 2000 |
| | 120 | 100 | 0.10 | 2000 |
| ILHB-0805 | 30 | 100 | 0.015 | 6000 |
| | 60 | 100 | 0.03 | 3000 |
| | 90 | 100 | 0.025 | 5000 |
| | 120 | 100 | 0.03 | 5000 |
| | 250 | 100 | 0.04 | 3000 |
| ILHB-1206 | 50 | 100 | 0.02 | 6000 |
| | 75 | 100 | 0.03 | 3000 |
| | 120 | 100 | 0.02 | 6000 |
| | 500 | 100 | 0.06 | 2500 |
| ILHB-1806 | 600 | 100 | 0.10 | 2500 |
| | 60 | 100 | 0.02 | 6000 |
| ILHB-1812 | 120 | 100 | 0.02 | 6000 |
| | 600 | 50 | 0.04 | 3000 |
| | 1300 | 60 | 0.05 | 3000 |

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



RoHS
COMPLIANT
HALOGEN
FREE

ENVIRONMENTAL SPECIFICATIONS

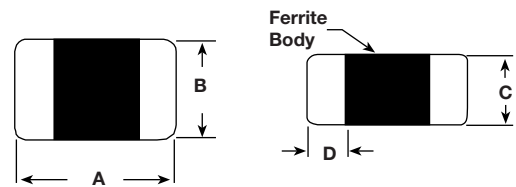
Operating Temperature: -55 °C to +125 °C

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

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

DIMENSIONS in inches [millimeters]

Dimensional Outline



| SIZE | A | B | C | D |
|------|-------------------------------|--------------------------------|--------------------------------|--------------------------------|
| 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] |
| 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] |
| 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] |
| 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] |
| 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] |

DESCRIPTION

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

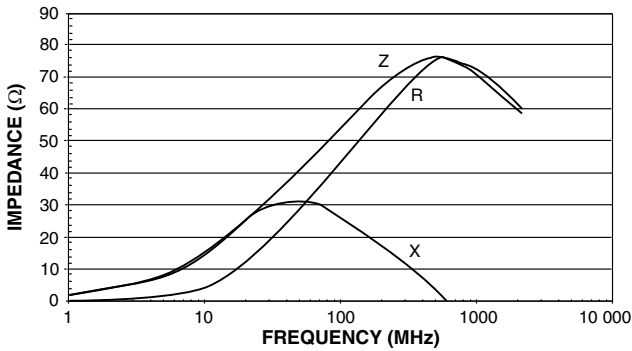
GLOBAL PART NUMBER

| | | | | | | | | | | | | | |
|----------------|---|---|---|------|---|---|---|--------------|---|-----------------|---|---|---------------------|
| I | L | H | B | 1 | 2 | 0 | 6 | E | R | 1 | 2 | 1 | V |
| PRODUCT FAMILY | | | | SIZE | | | | PACKAGE CODE | | IMPEDANCE VALUE | | | IMPEDANCE TOLERANCE |

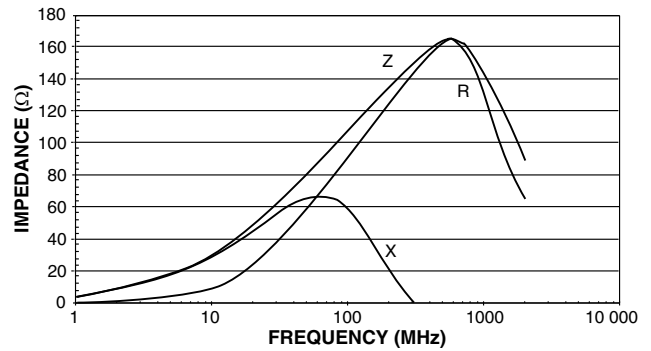


TYPICAL CURVES (Frequency Characteristics of R, X, and Z)

ILHB-0603 60 Ω



ILHB-0603 120 Ω



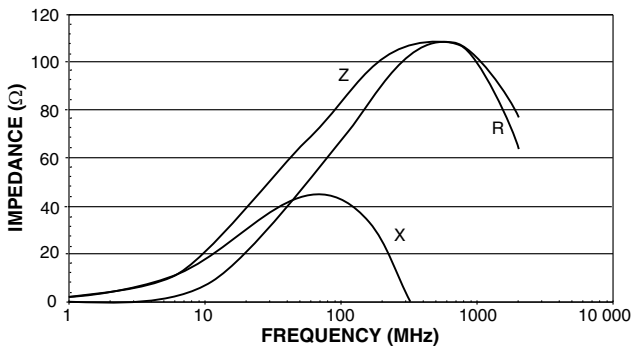
ILHB-0805 30 Ω



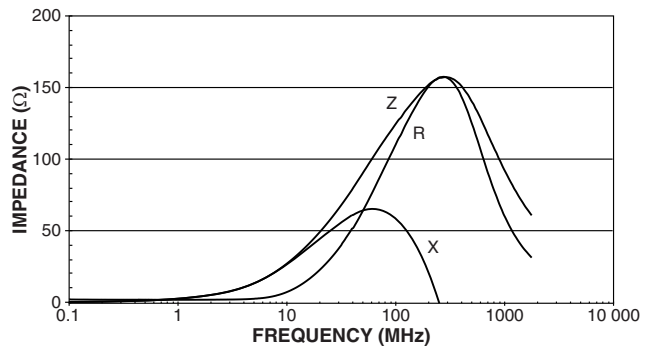
ILHB-0805 60 Ω



ILHB-0805 90 Ω



ILHB-0805 120 Ω



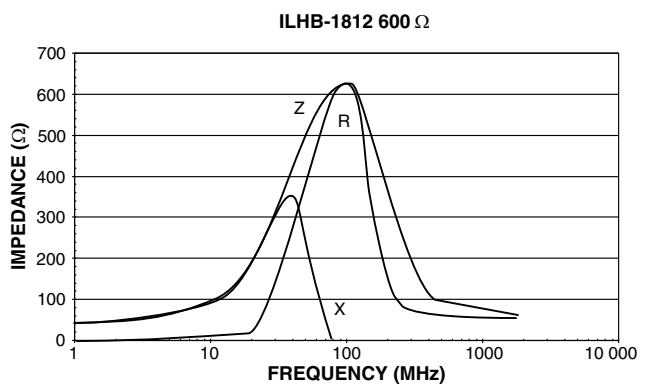
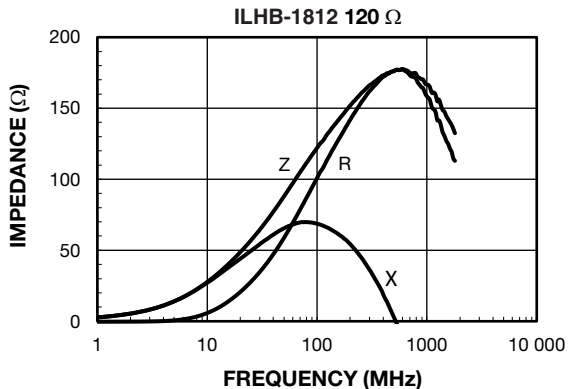
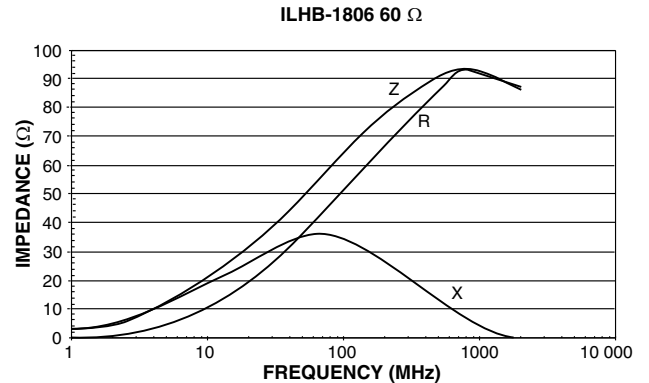
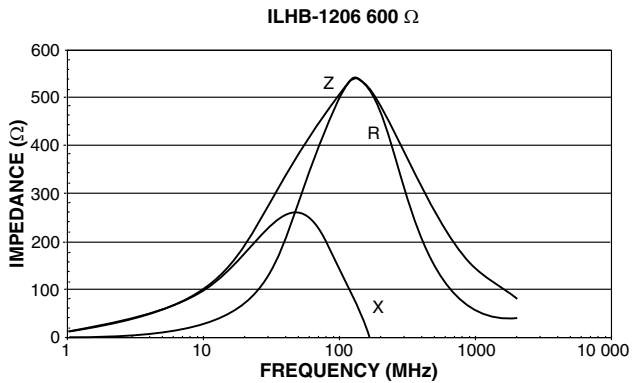
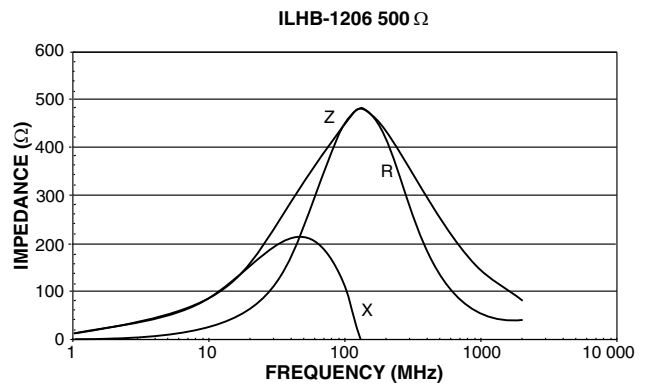
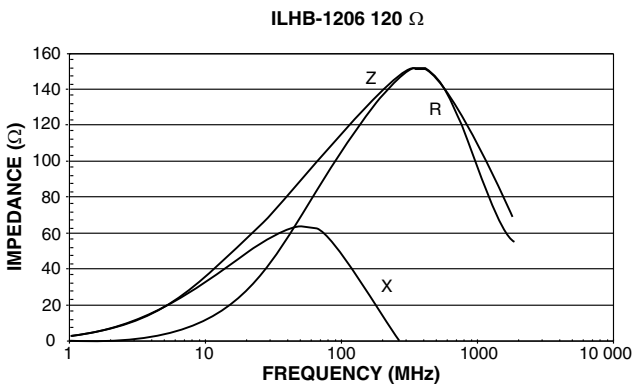
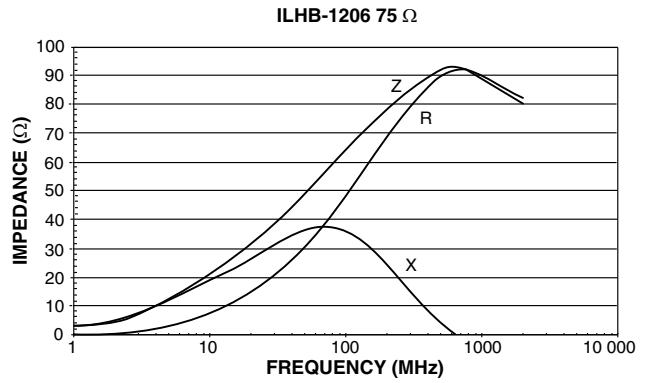
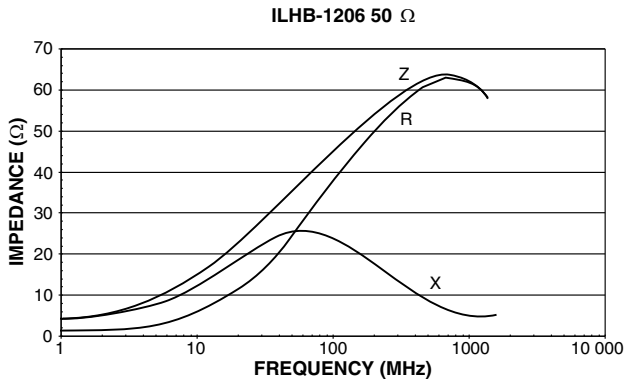
ILHB-0805 250 Ω



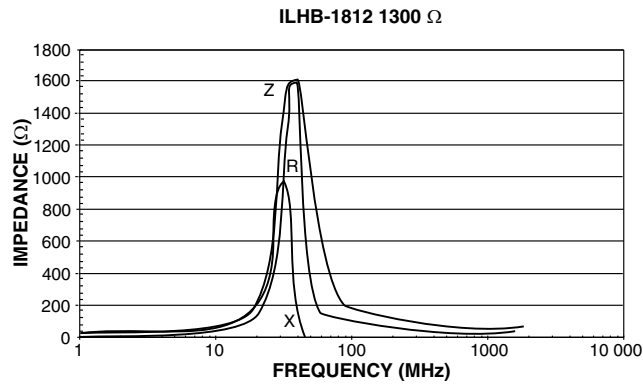
ILHB-0805 600 Ω



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



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