



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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High Impedance Ferrite Chip Beads

Steward's surface mount ferrite chips provide compact, cost effective EMI filtering for densely packed PCB designs. The small footprint enables placement very close to troublesome high frequency devices. Our proprietary SMT construction yields rugged components with superior impedance vs. frequency characteristics.

Features:

- Small footprint
- Excellent retention under Bias
- Rugged, monolithic construction
- Superior impedance vs. frequency characteristics
- Economical
- Broad range of sizes
- Broad range of impedance values and current ratings

Application:

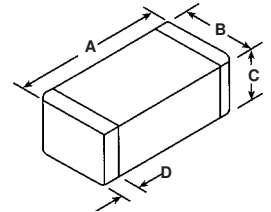
- Filtering of power input pins and devices using high speed clocks
- Filtering of low frequency input/output signals of shielded enclosures
- High frequency filtering of medium speed clocks and video signals
- Preventing oscillations in high frequency amplifiers
- Data bus filtration
- Discrete component filtration in power supplies

Test Specifications:

- Maximum current ratings are determined by testing to a maximum temperature rise of 40° C with continuous operating current
- Board level components are rated up to a maximum of 75 volts

Tested with: • HP4396A (100KHz - 1.8 GHz) or HP8753 (to 6 GHz) Network/Spectrum Analyzer • HP43961A Impedance Test Kit • HP16192A Test Fixture or Inter-Continental Microwave custom fixtures • HP16200A DC Bias Adapter • Philips PM2811 DC Power Supply • Ambient Temperature 23.5°C ± 2° • Bandwidth 3 kHz • Sweep Time 423 ms • Impedance is rated at ± 25% @100MHz

| PART NUMBERING SYSTEM | | | | | |
|------------------------|-------------------|-----------------------|-------------------------|-------------------|--------------------------------|
| <u>HZ</u> | <u>0402</u> | <u>A</u> | <u>601</u> | <u>R</u> | <u>- 00</u> |
| PRODUCT SERIES CODE | PART SIZE CODE | RATED CURRENT CODE | IMPEDANCE VALUE CODE | PACKAGING CODE | ADDITIONAL PART DESCRIPTION |



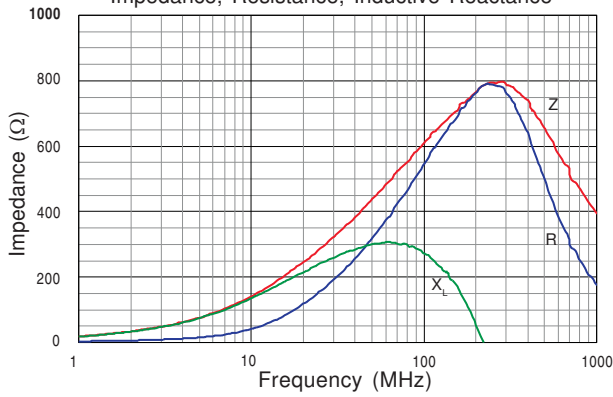
Ambient Operating Temperature Range: -55° C to +125° C

| PART NUMBER | A mm (inches) | B mm (inches) | C mm (inches) | D mm (inches) | IMPEDANCE (Z) TYPICAL OHMS @ | | | DCR MAX OHMS | RATED I MAX (continuous) mA |
|----------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------|------|--------------|-----------------------------|
| | | | | | 100MHz | 500MHz | 1GHz | | |
| HZ0402A601R-00 | 1.01 ± 0.18 (0.040 ± 0.007) | 0.50 ± 0.20 (0.020 ± 0.008) | 0.50 ± 0.20 (0.020 ± 0.008) | 0.30 MAX (0.012 MAX) | 600 | 644 | 399 | 1.000 | 100 |
| HZ0603C601R-00 | 1.60 ± 0.15 (0.063 ± 0.006) | 0.80 ± 0.15 (0.031 ± 0.006) | 0.80 ± 0.15 (0.031 ± 0.006) | 0.36 ± 0.15 (0.014 ± 0.006) | 600 | 338 | 171 | 0.450 | 300 |
| HZ0603B751R-00 | 1.60 ± 0.15 (0.063 ± 0.006) | 0.80 ± 0.15 (0.031 ± 0.006) | 0.80 ± 0.15 (0.031 ± 0.006) | 0.36 ± 0.15 (0.014 ± 0.006) | 750 | 331 | 168 | 0.600 | 200 |
| HZ0603B102R-00 | 1.60 ± 0.15 (0.063 ± 0.006) | 0.80 ± 0.15 (0.031 ± 0.006) | 0.80 ± 0.15 (0.031 ± 0.006) | 0.36 ± 0.15 (0.014 ± 0.006) | 1,000 | 376 | 187 | 0.600 | 200 |
| HZ0805E401R-00 | 2.00 ± 0.20 (0.079 ± 0.008) | 1.25 ± 0.20 (0.049 ± 0.008) | 0.90 ± 0.20 (0.035 ± 0.008) | 0.51 ± 0.25 (0.020 ± 0.010) | 400 | 390 | 180 | 0.300 | 500 |
| HZ0805E601R-00 | 2.00 ± 0.20 (0.079 ± 0.008) | 1.25 ± 0.20 (0.049 ± 0.008) | 0.90 ± 0.20 (0.035 ± 0.008) | 0.51 ± 0.25 (0.020 ± 0.010) | 600 | 304 | 151 | 0.300 | 500 |
| HZ0805D102R-00 | 2.00 ± 0.20 (0.079 ± 0.008) | 1.25 ± 0.20 (0.049 ± 0.008) | 0.90 ± 0.20 (0.035 ± 0.008) | 0.51 ± 0.25 (0.020 ± 0.010) | 1,000 | 328 | 168 | 0.350 | 400 |
| HZ0805D152R-00 | 2.00 ± 0.20 (0.079 ± 0.008) | 1.25 ± 0.20 (0.049 ± 0.008) | 0.90 ± 0.20 (0.035 ± 0.008) | 0.51 ± 0.25 (0.020 ± 0.010) | 1,500 | 265 | 140 | 0.400 | 400 |
| HZ0805C202R-00 | 2.00 ± 0.20 (0.079 ± 0.008) | 1.25 ± 0.20 (0.049 ± 0.008) | 0.90 ± 0.20 (0.035 ± 0.008) | 0.51 ± 0.25 (0.020 ± 0.010) | 2,000 | 345 | 175 | 0.500 | 300 |
| HZ1206E601R-00 | 3.20 ± 0.20 (0.126 ± 0.008) | 1.60 ± 0.20 (0.063 ± 0.008) | 1.10 ± 0.20 (0.043 ± 0.008) | 0.51 ± 0.25 (0.020 ± 0.010) | 600 | 202 | 103 | 0.300 | 500 |
| HZ1206E801R-00 | 3.20 ± 0.20 (0.126 ± 0.008) | 1.60 ± 0.20 (0.063 ± 0.008) | 1.10 ± 0.20 (0.043 ± 0.008) | 0.51 ± 0.25 (0.020 ± 0.010) | 800 | 137 | 95 | 0.300 | 500 |
| HZ1206D102R-00 | 3.20 ± 0.20 (0.126 ± 0.008) | 1.60 ± 0.20 (0.063 ± 0.008) | 1.10 ± 0.20 (0.043 ± 0.008) | 0.51 ± 0.25 (0.020 ± 0.010) | 1,000 | 185 | 100 | 0.400 | 400 |

| PART NUMBER | A mm (inches) | B mm (inches) | C mm (inches) | D mm (inches) | IMPEDANCE (Z) TYPICAL OHMS @ | | | DCR MAX OHMS | RATED I MAX (continuous) mA |
|----------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|--------------------------------|--------|------|--------------|-----------------------------|
| | | | | | 100MHz | 500MHz | 1GHz | | |
| HZ1206E152R-00 | 3.20 ± 0.20 (0.126 ± 0.008) | 1.60 ± 0.20 (0.063 ± 0.008) | 1.10 ± 0.20 (0.043 ± 0.008) | 0.51 ± 0.25 (0.020 ± 0.010) | 1,500 | 115 | 99 | 0.300 | 500 |
| HZ1206C202R-00 | 3.20 ± 0.20 (0.126 ± 0.008) | 1.60 ± 0.20 (0.063 ± 0.008) | 1.10 ± 0.20 (0.043 ± 0.008) | 0.51 ± 0.25 (0.020 ± 0.010) | 2,000 | 427 | 231 | 0.500 | 300 |

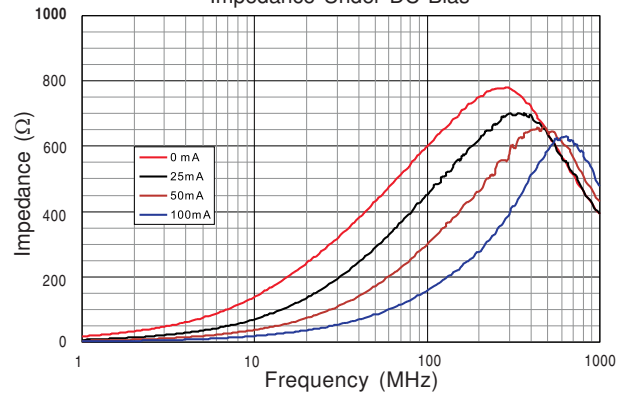
HZ0402A601R-00

Z, R, X_L vs. Frequency
Impedance, Resistance, Inductive Reactance



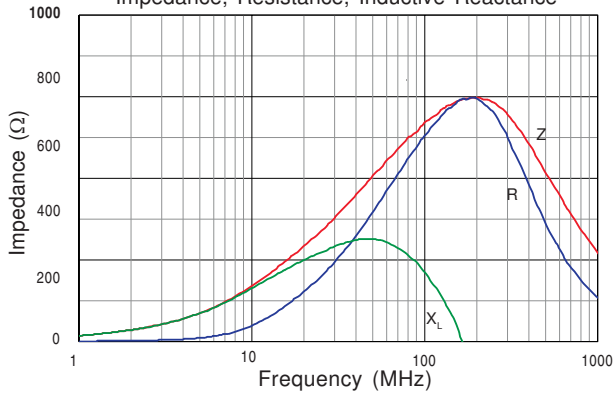
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Z vs. Frequency
Impedance Under DC Bias



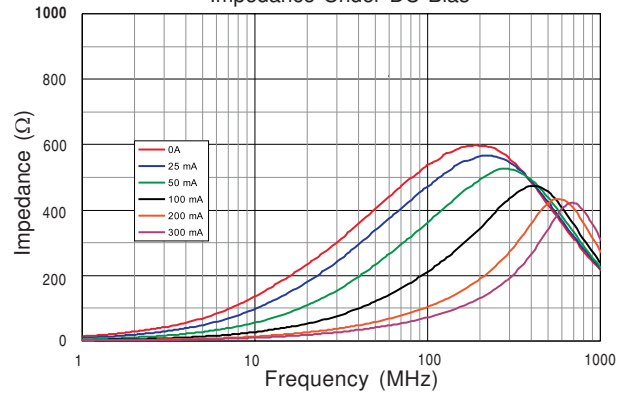
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Z, R, X_L vs. Frequency
Impedance, Resistance, Inductive Reactance



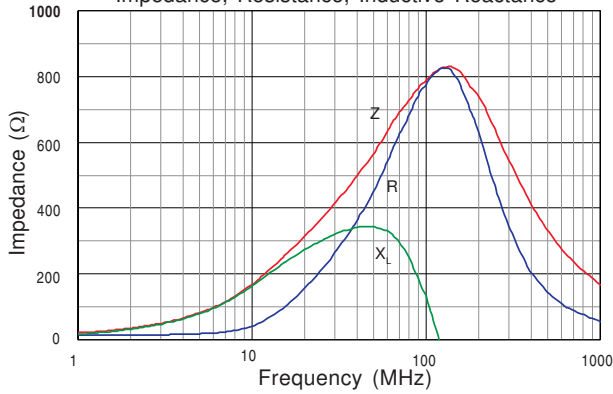
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Z vs. Frequency
Impedance Under DC Bias



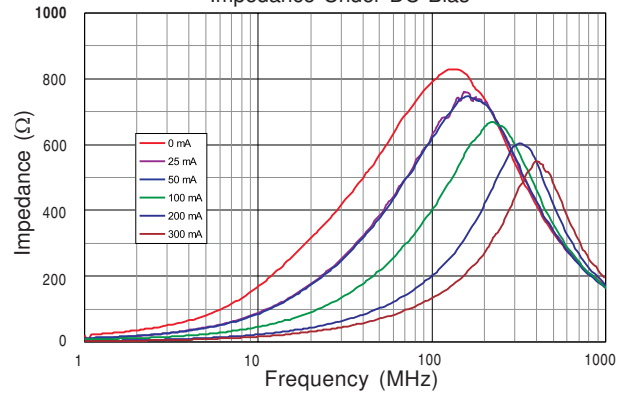
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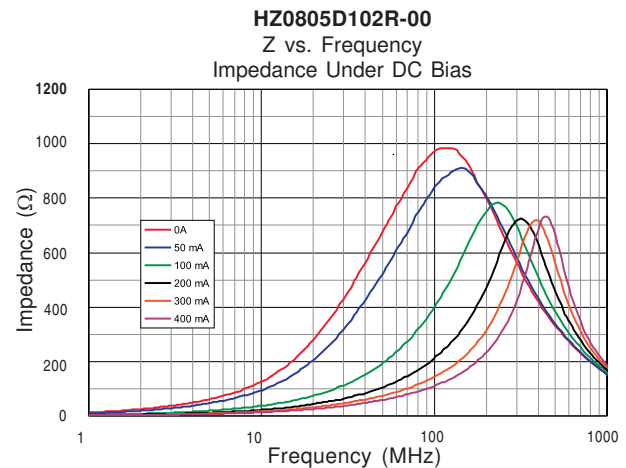
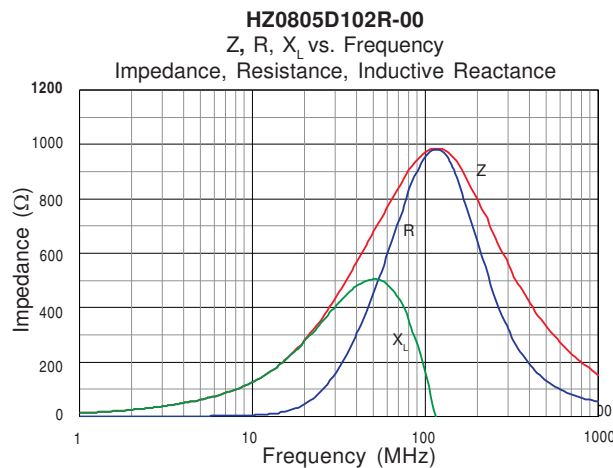
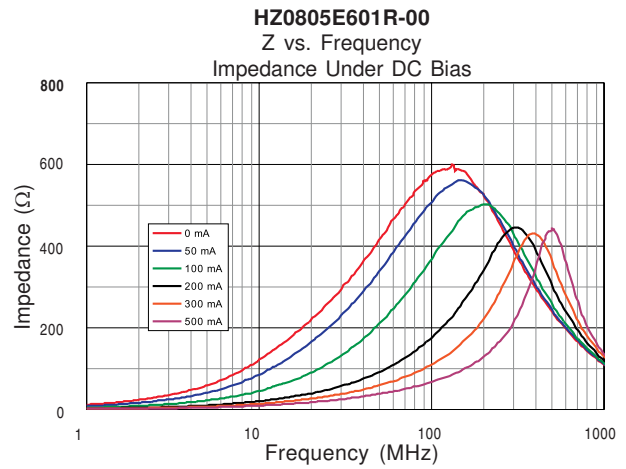
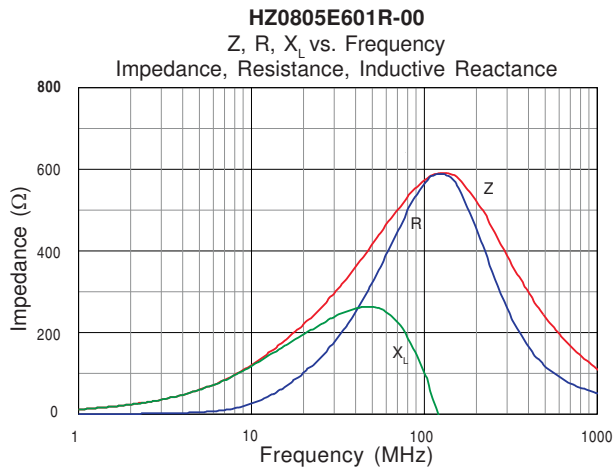
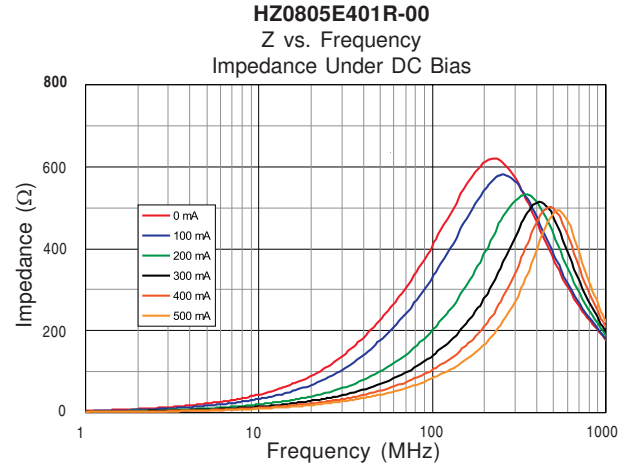
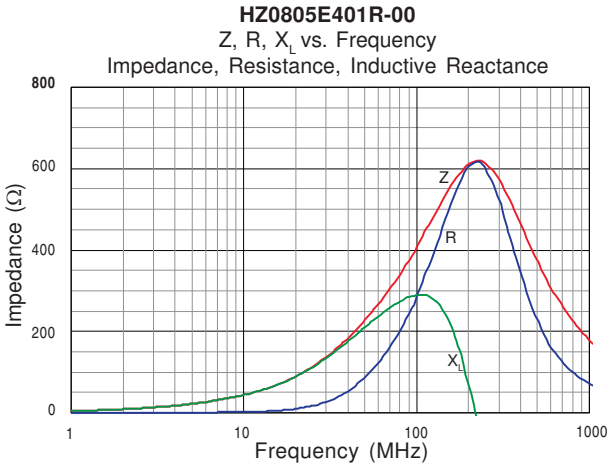
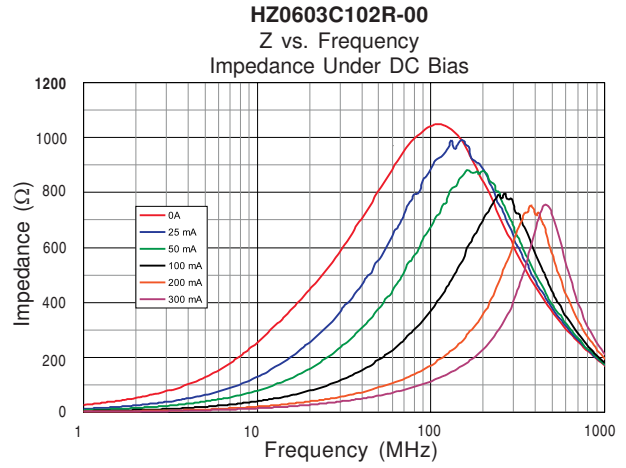
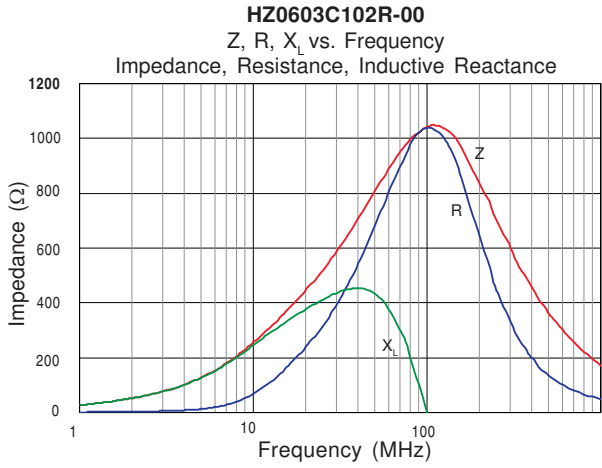
Z, R, X_L vs. Frequency
Impedance, Resistance, Inductive Reactance

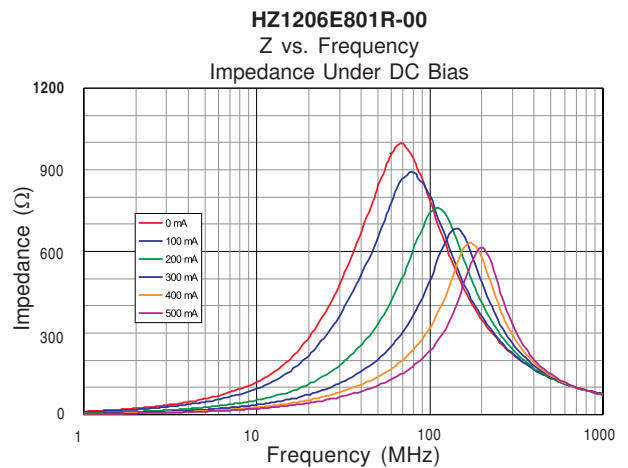
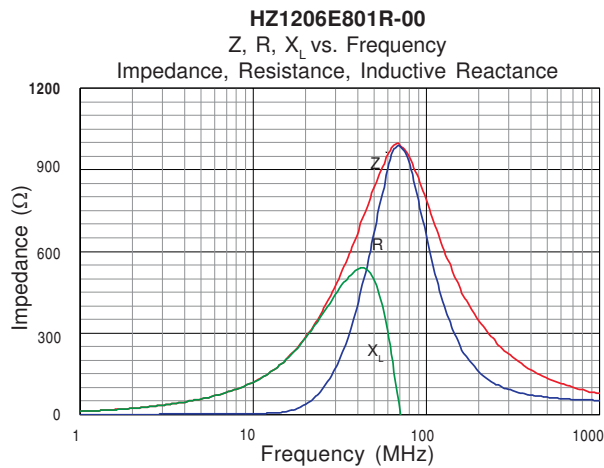
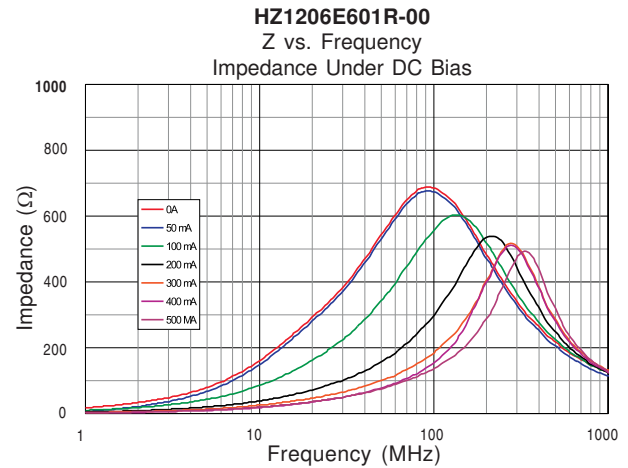
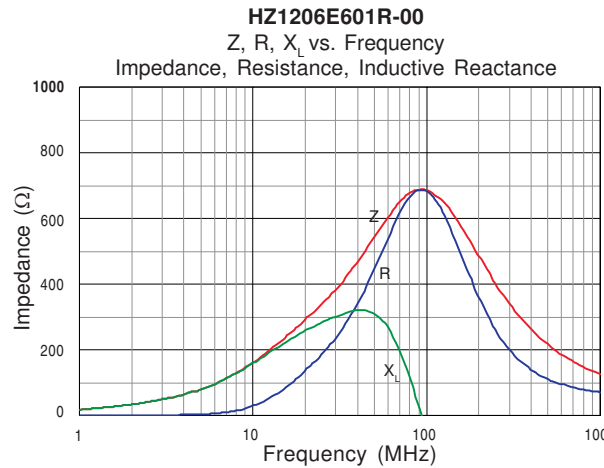
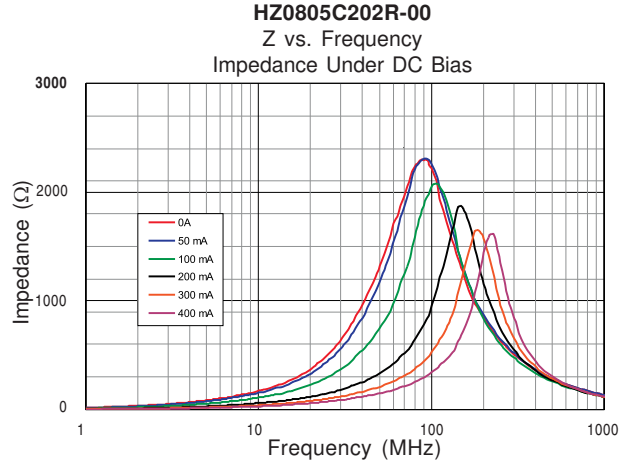
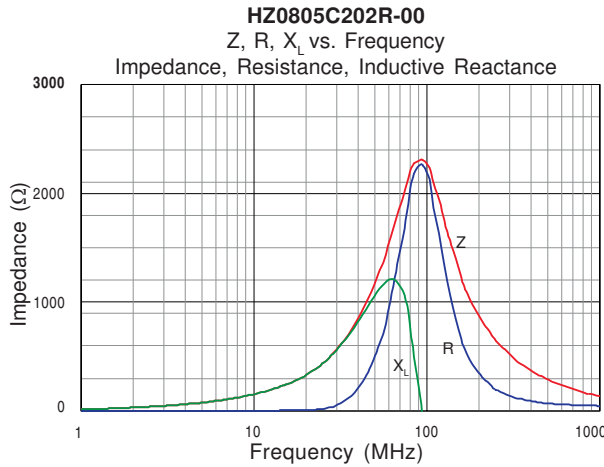
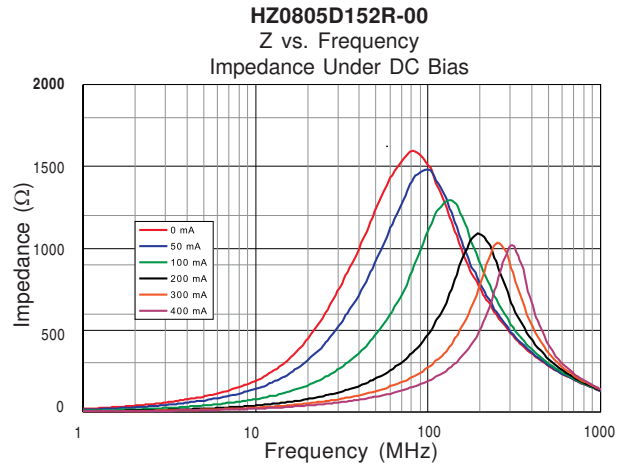
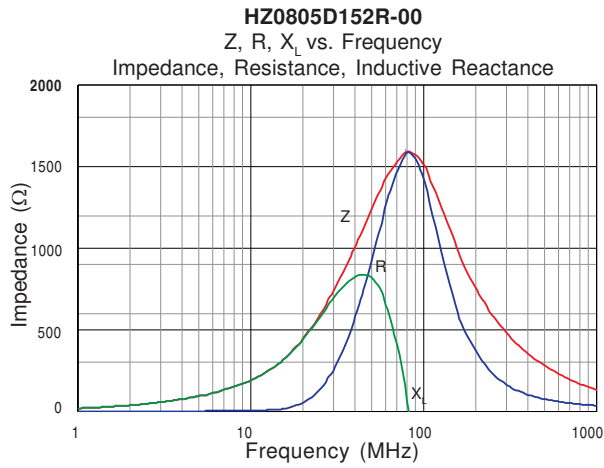


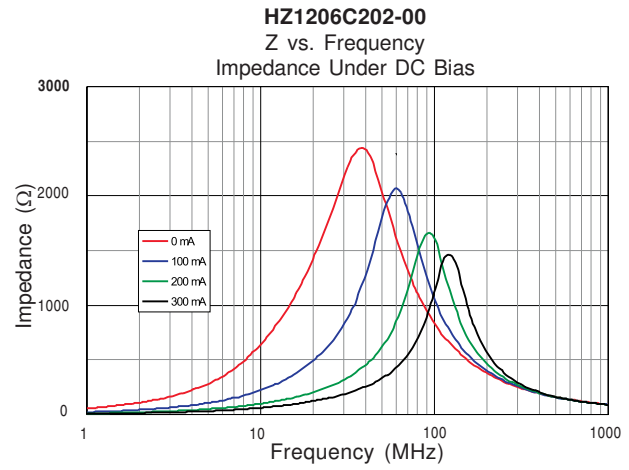
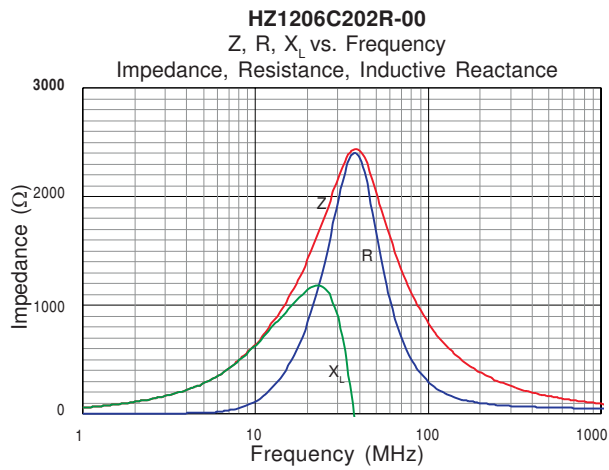
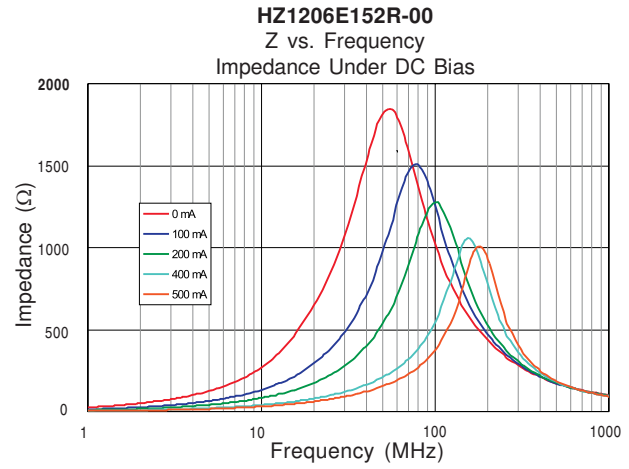
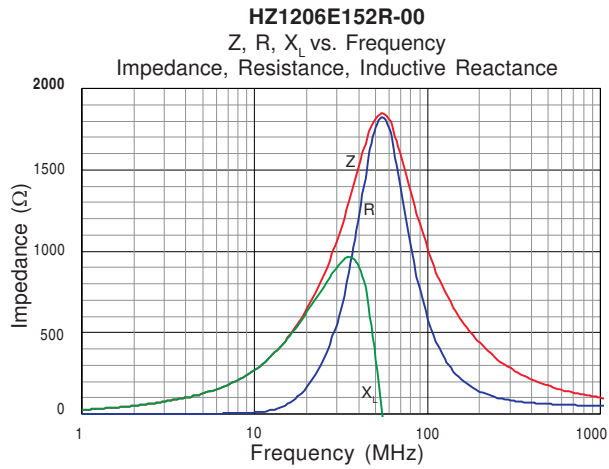
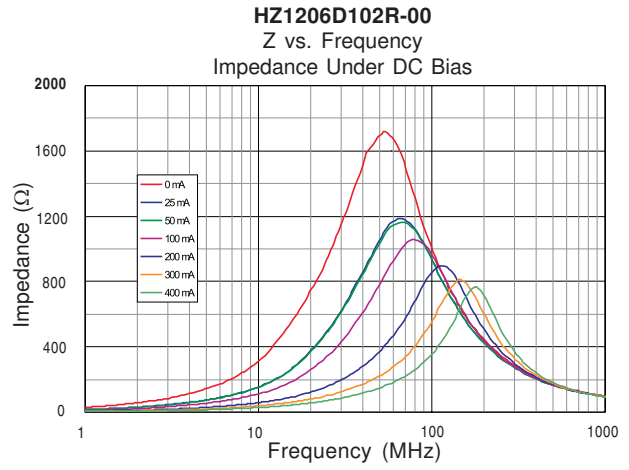
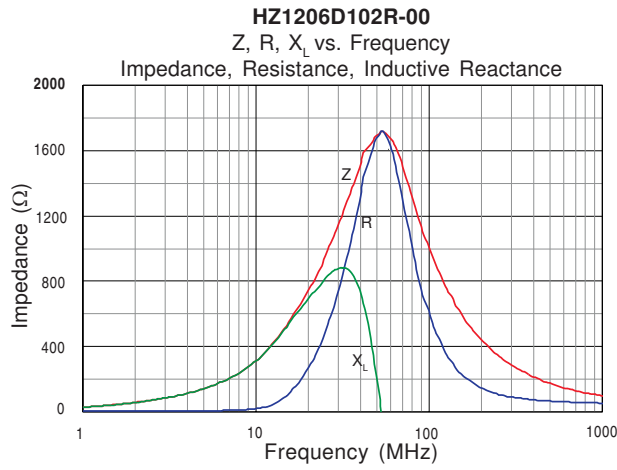
HZ0603B751R-00

Z vs. Frequency
Impedance Under DC Bias





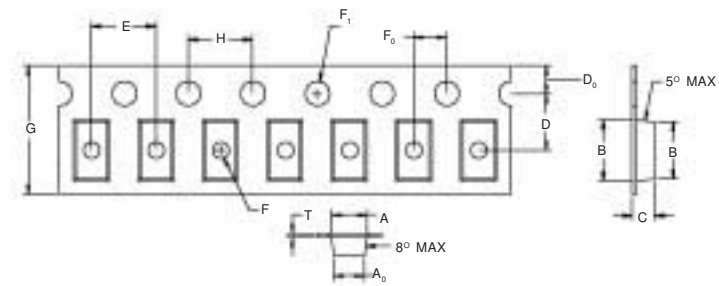




HZ, IC & IH Tape Specifications

| P/N | A | A ₀ | B | B ₀ | C | D | D ₀ | E | F | F ₀ | F ₁ | G | H | T | Reel Size |
|--------|-----------------|--------------------------------|-----------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|---|--------------------------------|----------------------------------|-----------|
| HZ0402 | 1.20 (0.047) | 1.60 ± 0.10 (0.063 ± 0.004) | 1.80 (0.071) | 1.15 ± 0.10 (0.045 ± 0.004) | 0.85 ± 0.10 (0.033 ± 0.004) | 3.50 ± 0.05 (0.138 ± 0.002) | 1.75 ± 0.10 (0.069 ± 0.004) | 4.00 ± 0.10 (0.157 ± 0.004) | 1.00 ± 0.25 (0.039 ± 0.010) | 2.00 ± 0.05 (0.079 ± 0.002) | 1.50 ± 0.10 (0.059 ± 0.004) | 8.00 + 0.30 / - 0.10 (0.315 + 0.012 / - 0.004) | 4.00 ± 0.10 (0.157 ± 0.004) | 0.25 ± 0.013 (0.010 ± 0.0005) | 7" |
| HZ0603 | 2.21 (0.087) | 1.88 ± 0.10 (0.074 ± 0.004) | 3.76 (0.148) | 3.56 ± 0.10 (0.140 ± 0.004) | 1.91 ± 0.10 (0.075 ± 0.004) | 3.50 ± 0.05 (0.138 ± 0.002) | 1.75 ± 0.10 (0.069 ± 0.004) | 4.00 ± 0.10 (0.157 ± 0.004) | 1.00 ± 0.25 (0.039 ± 0.010) | 2.00 ± 0.05 (0.079 ± 0.002) | 1.50 ± 0.10 (0.059 ± 0.004) | 8.00 + 0.30 / - 0.10 (0.315 + 0.012 / - 0.004) | 4.00 ± 0.10 (0.157 ± 0.004) | 0.25 ± 0.013 (0.010 ± 0.0005) | 7" |
| HZ0805 | 1.85 (0.073) | 1.55 ± 0.10 (0.061 ± 0.004) | 2.49 (0.098) | 2.31 ± 0.10 (0.091 ± 0.004) | 1.30 ± 0.10 (0.051 ± 0.004) | 3.50 ± 0.05 (0.138 ± 0.002) | 1.75 ± 0.10 (0.069 ± 0.004) | 4.00 ± 0.10 (0.157 ± 0.004) | 1.00 ± 0.25 (0.039 ± 0.010) | 2.00 ± 0.05 (0.079 ± 0.002) | 1.50 ± 0.10 (0.059 ± 0.004) | 8.00 + 0.30 / - 0.10 (0.315 + 0.012 / - 0.004) | 4.00 ± 0.10 (0.157 ± 0.004) | 0.25 ± 0.013 (0.010 ± 0.0005) | 7" |
| HZ1206 | 2.21 (0.087) | 1.88 ± 0.10 (0.074 ± 0.004) | 3.76 (0.148) | 3.56 ± 0.10 (0.140 ± 0.004) | 1.91 ± 0.10 (0.075 ± 0.004) | 3.50 ± 0.05 (0.138 ± 0.002) | 1.75 ± 0.10 (0.069 ± 0.004) | 4.00 ± 0.10 (0.157 ± 0.004) | 1.00 ± 0.25 (0.039 ± 0.010) | 2.00 ± 0.05 (0.079 ± 0.002) | 1.50 ± 0.10 (0.059 ± 0.004) | 8.00 + 0.30 / - 0.10 (0.315 + 0.012 / - 0.004) | 4.00 ± 0.10 (0.157 ± 0.004) | 0.25 ± 0.013 (0.010 ± 0.0005) | 7" |
| IC0603 | 2.21 (0.087) | 1.88 ± 0.10 (0.074 ± 0.004) | 3.76 (0.148) | 3.56 ± 0.10 (0.140 ± 0.004) | 1.91 ± 0.10 (0.075 ± 0.004) | 3.50 ± 0.05 (0.138 ± 0.002) | 1.75 ± 0.10 (0.069 ± 0.004) | 4.00 ± 0.10 (0.157 ± 0.004) | 1.00 ± 0.25 (0.039 ± 0.010) | 2.00 ± 0.05 (0.079 ± 0.002) | 1.50 ± 0.10 (0.059 ± 0.004) | 8.00 + 0.30 / - 0.10 (0.315 + 0.012 / - 0.004) | 4.00 ± 0.10 (0.157 ± 0.004) | 0.25 ± 0.013 (0.010 ± 0.0005) | 7" |
| IC0805 | 1.85 (0.073) | 1.55 ± 0.10 (0.061 ± 0.004) | 2.49 (0.098) | 2.31 ± 0.10 (0.091 ± 0.004) | 1.30 ± 0.10 (0.051 ± 0.004) | 3.50 ± 0.05 (0.138 ± 0.002) | 1.75 ± 0.10 (0.069 ± 0.004) | 4.00 ± 0.10 (0.157 ± 0.004) | 1.00 ± 0.25 (0.039 ± 0.010) | 2.00 ± 0.05 (0.079 ± 0.002) | 1.50 ± 0.10 (0.059 ± 0.004) | 8.00 + 0.30 / - 0.10 (0.315 + 0.012 / - 0.004) | 4.00 ± 0.10 (0.157 ± 0.004) | 0.25 ± 0.013 (0.010 ± 0.0005) | 7" |
| IC1206 | 2.21 (0.087) | 1.88 ± 0.10 (0.074 ± 0.004) | 3.76 (0.148) | 3.56 ± 0.10 (0.140 ± 0.004) | 1.91 ± 0.10 (0.075 ± 0.004) | 3.50 ± 0.05 (0.138 ± 0.002) | 1.75 ± 0.10 (0.069 ± 0.004) | 4.00 ± 0.10 (0.157 ± 0.004) | 1.00 ± 0.25 (0.039 ± 0.010) | 2.00 ± 0.05 (0.079 ± 0.002) | 1.50 ± 0.10 (0.059 ± 0.004) | 8.00 + 0.30 / - 0.10 (0.315 + 0.012 / - 0.004) | 4.00 ± 0.10 (0.157 ± 0.004) | 0.25 ± 0.013 (0.010 ± 0.0005) | 7" |
| IH0402 | 1.20 (0.047) | 1.60 ± 0.10 (0.063 ± 0.004) | 1.80 (0.071) | 1.15 ± 0.10 (0.045 ± 0.004) | 0.85 ± 0.10 (0.033 ± 0.004) | 3.50 ± 0.05 (0.138 ± 0.002) | 1.75 ± 0.10 (0.069 ± 0.004) | 4.00 ± 0.10 (0.157 ± 0.004) | 1.00 ± 0.25 (0.039 ± 0.010) | 2.00 ± 0.05 (0.079 ± 0.002) | 1.50 ± 0.10 (0.059 ± 0.004) | 8.00 + 0.30 / - 0.10 (0.315 + 0.012 / - 0.004) | 4.00 ± 0.10 (0.157 ± 0.004) | 0.25 ± 0.013 (0.010 ± 0.0005) | 7" |
| IH0603 | 2.21 (0.087) | 1.88 ± 0.10 (0.074 ± 0.004) | 3.76 (0.148) | 3.56 ± 0.10 (0.140 ± 0.004) | 1.91 ± 0.10 (0.075 ± 0.004) | 3.50 ± 0.05 (0.138 ± 0.002) | 1.75 ± 0.10 (0.069 ± 0.004) | 4.00 ± 0.10 (0.157 ± 0.004) | 1.00 ± 0.25 (0.039 ± 0.010) | 2.00 ± 0.05 (0.079 ± 0.002) | 1.50 ± 0.10 (0.059 ± 0.004) | 8.00 + 0.30 / - 0.10 (0.315 + 0.012 / - 0.004) | 4.00 ± 0.10 (0.157 ± 0.004) | 0.25 ± 0.013 (0.010 ± 0.0005) | 7" |
| IH0805 | 1.85 (0.073) | 1.55 ± 0.10 (0.061 ± 0.004) | 2.49 (0.098) | 2.31 ± 0.10 (0.091 ± 0.004) | 1.30 ± 0.10 (0.051 ± 0.004) | 3.50 ± 0.05 (0.138 ± 0.002) | 1.75 ± 0.10 (0.069 ± 0.004) | 4.00 ± 0.10 (0.157 ± 0.004) | 1.00 ± 0.25 (0.039 ± 0.010) | 2.00 ± 0.05 (0.079 ± 0.002) | 1.50 ± 0.10 (0.059 ± 0.004) | 8.00 + 0.30 / - 0.10 (0.315 + 0.012 / - 0.004) | 4.00 ± 0.10 (0.157 ± 0.004) | 0.25 ± 0.013 (0.010 ± 0.0005) | 7" |

Tape & Reel Specifications



| | |
|---|---|
| A | 330.0 / 178.0 ± 2.0 (13.00 / 7.00 ± 0.078) |
| B | 95.0 ± 1.0 (3.74 ± 0.039) |
| C | 13.0 ± 0.5 (0.51 ± 0.020) |
| D | 21.0 ± 0.8 (0.82 ± 0.031) |
| E | 2.0 ± 0.5 (0.08 ± 0.020) |
| W | 8.0 ± 1.0 (0.32 ± 0.039) |
| T | 1.0 (0.039) |

