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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.

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Smart Technology. Delivered.

EMI FILTERING & RF INDUCTORS



About Laird

Laird is a global technology business focused on enabling wireless communication and smart systems, and providing components and systems that protect electronics. Laird operates through two divisions, Wireless Systems and Performance Materials. Wireless Systems solutions include antenna systems, embedded wireless modules, telematics products and wireless automation and control solutions. Performance Materials solutions include electromagnetic interference shielding, thermal management and signal integrity products. As a leader in the design, supply and support of innovative technology, our products allow people, organisations, machines and applications to connect effectively, helping to build a world where smart technology transforms the way of life. Custom products are supplied to major sectors of the electronics industry including the handset, telecommunications, IT, automotive, public safety, consumer, medical, rail, mining and industrial markets. Providing value and differentiation to our customers through innovation, reliable fulfilment and speed, Laird PLC is listed and headquartered in London, and employs over 9,000 people in more than 58 facilities located in 18 countries.

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All parts listed in this catalog are lead free and RoHS compliant.

NOTICE

Laird products or subcomponents are not specifically designed or tested by Laird for use in any medical application, medical device manufacturing, or any similar procedure or process requiring approval, testing, or certification and drug administration or other similar Governmental entity. Applications with unusual environmental medical, life-support or life-sustaining equipment are specifically not recommended without additional

Nomenclature Explanation

PART NUMBERING SYSTEM

| HZ PRODUCT SERIES CODE | 0402 EIA SIZE CODE | A RATED CURRENT CODE | 601 IMPEDANCE (Z) OR INDUCTANCE (L) | R PACKING CODE | -10 ADDITIONAL DESCRIPTION |
|---|--------------------------|----------------------------|---|-----------------------------------|----------------------------------|
| HI = High Current Chip Beads ($\geq 3,000$ mA) | 0402 2545 | A < 100 mA | First two numbers are Significant Digits | B: | -10 = |
| | 0504 2722 | B = 200 mA | The last number indicates how many zeros are added to the significant digits. | Bulk Standard Thru-Hole Packaging | Lead Free Standard Catalog Part |
| MI = Mid Current Chip Beads ($\geq 1,000$ mA to <3,000 mA) | 0603 3032 | C = 300 mA | | R: | -11 to -99 = |
| | 0805 3312 | D = 400 mA | Impedance Examples: | Tape&Reel Standard SMT Package | Non-Standard or Custom Part |
| | 0806 3322 | E = 500 mA | 100 = 10 OHMS | | -1□ = Tolerance Code |
| LI = Low Current Chip Beads (<1,000 mA, <400 Ω Z) | 1008 3421 | F = 600 mA | 101 = 100 OHMS | | |
| | 1206 3822 | G = 700 mA | 102 = 1,000 OHMS | | |
| HZ = High Impedance Chip Beads (<1,000 mA, >400 Ω Z) | 1210 4440 | H = 800 mA | 202 = 2,000 OHMS | | |
| | 1211 4545 | I = 900 mA | 060 = 6 OHMS | | |
| HF = High Frequency Chip Beads | 1616 4732 | J = 1,000 mA | | | |
| | 1612 5022 | K = 1,500 mA | Examples: (For IC Series) | | |
| LF = Low Frequency Chip Beads | 1806 5441 | L = 2,000 mA | 470 = 47 nH | | |
| | 1812 6032 | M = 2,500 mA | 471 = 470 nH | | |
| HR = High Bias Retention Chip Beads (>3,000 mA) | 1922 | N = 3,000 mA | 472 = 4,700 nH | | |
| | 2021 | O = 3,500 mA | 473 = 47,000 nH | | |
| CC = CAN-Bus Common Mode Chokes | 2220 | P = 4,000 mA | Examples: (For CCI series) | | |
| | 2520 | Q = 4,500 mA | 0N3 = 0.3 nH | | |
| CM = Common Mode Chokes | | R = 5,000 mA | 1N2 = 1.2 nH | | |
| | | S = 5,500 mA | 12N = 12 nH | | |
| CMX = Wire-Wound Power Common Mode Chokes | | T = 6,000 mA | R12 = 120 nH | | |
| | | U = 7,000 mA | R22 = 220 nH | | |
| CF = Small Size (0805, 0504) Monolithic Common Mode Chokes | | V = 8,000 mA | Examples: (For CPI series) | | |
| | | W = 9,000 mA | R47 = 0.47 uH | | |
| DA = Multilines Array Chip Arrays | | X = 10,000 mA | 1R0 = 1.0 uH | | |
| | | Y = 15,000 mA | 4R7 = 4.7 uH | | |
| IC = Ferrite Chip Inductors | | Z $\geq 20,000$ mA | Examples: (For CMX series) | | |
| | | | 680 = 68 uH | | |
| CCI = Ceramic Chip Inductors | | | 181 = 180 uH | | |
| CPI = Multilayer Power Chip Inductors | | | 132 = 1300 uH | | |

PART NUMBERING SYSTEM

| 29 | F | 0818 | -1 | S | R | -10 |
|--|--|--|-------------------------------|------------------------------------|--|---|
| MATERIAL TYPE | PRODUCT TYPE CODE | PART SIZE CODE | MINOR DIMENSION CODE | BOARD MOUNTING STYLE | PACKAGING CODE | ADDITIONAL DESCRIPTION |
| 28 & 29 = Broad Band Material 35 = Low Freq. Material | C = Choke L = Axial Leaded Bead F = Assembled Part | Unique Part Identifier or Significant Dimension | Height or Length Variation | S = Surface Mount T = Thru-Hole | O = Bulk Standard R = Tape & Reel Standard SMT Package | -10 = Lead Free Standard Catalog Part -11 to -99 = Non Standard or Custom Part |

TEST CONDITIONS

Operation temperature: -40°C ~ +125°C (If no parts are specifically defined)

Visit www.lairdtech.com for additional and the most up-to-date information and for other board level part families not included in this catalog. All data charts are available by contacting your local Laird office.

A revolutionary new SPICE model for EMI ferrite chip beads is now available from Laird. This new design aid includes the de-rating effects of DC bias currents providing much greater accuracy for better designs the first time. This chip bead SPICE model is available by contacting your local Laird office.

Note: Most current ratings (I MAX) are based upon a 40°C temperature rise during continuous operation. Parts have no polarity.



FEATURES



- Up to 10 Amps (I MAX) continuous operating capability
- Monolithic construction with small footprint and high reliability
- Excellent retention under bias
- Economical
- Broad range of sizes (from EIA 0201 up to 3312)
- For power line, low frequency and high frequency signal lines

PART NUMBERING SYSTEM

| HZ | 0402 | A | 601 | R | -10 |
|---------------------|---------------|--------------------|----------------------|--------------|------------------------|
| Product Series Code | EIA Size Code | Rated Current Code | Impedance Value Code | Packing Code | Additional Description |

FOR SIGNAL LINE

| EIA Pkg. Size | Metric Pkg. Size | Part Number | Typical Impedance (Ω) | | | | Typical Peak Impedance (Ω) | Peak Impedance Frequency (MHz) | DCR MAX (Ω) | RATED I MAX (continuous) mA |
|---------------|------------------|----------------|--------------------------------|-------------|-------------|-----------|-------------------------------------|--------------------------------|----------------------|-----------------------------|
| | | | Z 25 MHz | Z @ 100 MHz | Z @ 500 MHz | Z @ 1 GHz | | | | |
| 0402 | 1005 | LI0402E190R-10 | 6 | 19 | 43 | 56 | 59 | 1,519 | 0.10 | 500 |
| 0402 | 1005 | LI0402C220R-10 | 9 | 22 | 30 | 31 | 31 | 830 | 0.20 | 300 |
| 0402 | 1005 | LI0402E300R-10 | 9 | 30 | 50 | 57 | 58 | 1,195 | 0.30 | 500 |
| 0402 | 1005 | LI0402C470R-10 | 15 | 47 | 76 | 90 | 92 | 1,402 | 0.15 | 300 |
| 0402 | 1005 | LI0402E600R-10 | 29 | 60 | 90 | 57 | 97 | 801 | 0.30 | 500 |
| 0402 | 1005 | LI0402B800R-10 | 32 | 80 | 220 | 224 | 243 | 769 | 0.80 | 200 |
| 0402 | 1005 | LI0402E800R-10 | 34 | 80 | 126 | 132 | 132 | 867 | 0.17 | 500 |
| 0402 | 1005 | LI0402D121R-10 | 40 | 120 | 205 | 195 | 213 | 682 | 0.40 | 400 |
| 0402 | 1005 | LI0402C221R-10 | 72 | 220 | 443 | 243 | 453 | 440 | 0.35 | 300 |
| 0402 | 1005 | LI0402B301R-10 | 96 | 300 | 454 | 351 | 549 | 374 | 0.80 | 200 |
| 0402 | 1005 | HZ0402A601R-10 | 182 | 600 | 600 | 300 | 965 | 241 | 1.00 | 100 |
| 0402 | 1005 | HZ0402B102R-10 | 225 | 1,000 | 489 | 222 | 1,116 | 182 | 1.00 | 200 |
| 0402 | 1005 | HZ0402A152R-10 | 400 | 1,500 | 441 | 200 | 1,500 | 143 | 2.00 | 50 |
| 0402 | 1005 | HZ0402A182R-10 | 251 | 1,800 | 520 | 265 | 2,702 | 143 | 1.40 | 100 |
| 0603 | 1608 | LI0603E470R-10 | 17 | 47 | 83 | 91 | 91 | 1,000 | 0.10 | 500 |
| 0603 | 1608 | LI0603G800R-10 | 32 | 80 | 100 | 91 | 100 | 500 | 0.20 | 700 |
| 0603 | 1608 | LI0603G121R-10 | 52 | 120 | 156 | 113 | 177 | 389 | 0.20 | 700 |
| 0603 | 1608 | LI0603E151R-10 | 61 | 150 | 197 | 131 | 209 | 331 | 0.25 | 500 |
| 0603 | 1608 | LI0603B201R-10 | 70 | 200 | 340 | 210 | 362 | 420 | 0.40 | 200 |
| 0603 | 1608 | LI0603G221R-10 | 98 | 220 | 279 | 168 | 283 | 251 | 0.30 | 700 |
| 0603 | 1608 | LI0603D301R-10 | 144 | 300 | 286 | 165 | 389 | 261 | 0.35 | 400 |
| 0603 | 1608 | HZ0603B471R-10 | 94 | 470 | 560 | 253 | 1,060 | 240 | 0.85 | 200 |
| 0603 | 1608 | HZ0603C601R-10 | 232 | 600 | 360 | 171 | 775 | 168 | 0.45 | 300 |
| 0603 | 1608 | HZ0603C651R-10 | 296 | 650 | 954 | 652 | 960 | 400 | 0.60 | 300 |
| 0603 | 1608 | HZ0603B751R-10 | 302 | 750 | 437 | 198 | 863 | 137 | 0.60 | 200 |

FOR SIGNAL LINE

| EIA PKG. SIZE | METRIC PKG. SIZE | PART NUMBER | TYPICAL IMPEDANCE (Ω) | | | | TYPICAL PEAK IMPEDANCE (Ω) | PEAK IMPEDANCE FREQUENCY (MHz) | DCR MAX (Ω) | RATED I MAX (CONTINUOUS) mA |
|---------------|------------------|----------------|-----------------------|-------------|-------------|-----------|----------------------------|--------------------------------|-------------|-----------------------------|
| | | | Z @ 25 MHz | Z @ 100 MHz | Z @ 500 MHz | Z @ 1 GHz | | | | |
| 0603 | 1608 | HZ0603A102R-10 | 288 | 1,000 | 1975 | 1,450 | 2,000 | 480 | 1.00 | 100 |
| 0603 | 1608 | HZ0603B102R-10 | 453 | 1,000 | 380 | 200 | 1,000 | 100 | 0.60 | 200 |
| 0603 | 1608 | HZ0603D102R-10 | 453 | 1,000 | 380 | 193 | 970 | 140 | 0.35 | 400 |
| 0603 | 1608 | HZ0603B112R-10 | 515 | 1,100 | 1,300 | 850 | 1,539 | 288 | 0.80 | 200 |
| 0603 | 1608 | HZ0603A152R-10 | 552 | 1,500 | 1,062 | 503 | 2,306 | 190 | 0.90 | 100 |
| 0603 | 1608 | HZ0603C152R-10 | 319 | 1,500 | 462 | 190 | 1,493 | 135 | 0.60 | 300 |
| 0603 | 1608 | HZ0603A182R-10 | 610 | 1,800 | 1,070 | 500 | 2,420 | 180 | 1.50 | 50 |
| 0603 | 1608 | HZ0603A222R-10 | 195 | 2,200 | 375 | 175 | 3,051 | 122 | 1.50 | 100 |
| 0603 | 1608 | HZ0603A252R-10 | 791 | 2,500 | 1,014 | 501 | 3,065 | 149 | 1.50 | 50 |
| 0805 | 2012 | LI0805G201R-10 | 100 | 200 | 221 | 128 | 272 | 250 | 0.30 | 700 |
| 0805 | 2012 | LI0805G301R-10 | 124 | 300 | 248 | 146 | 350 | 205 | 0.20 | 700 |
| 0805 | 2012 | HZ0805G471R-10 | 221 | 470 | 286 | 150 | 572 | 149 | 0.20 | 700 |
| 0805 | 2012 | HZ0805E601R-10 | 277 | 600 | 304 | 151 | 696 | 155 | 0.30 | 500 |
| 0805 | 2012 | HZ0805D102R-10 | 280 | 1,000 | 328 | 168 | 1,268 | 113 | 0.30 | 400 |
| 0805 | 2012 | MI0805J102R-10 | 195 | 1,000 | 226 | 108 | 1,112 | 120 | 0.15 | 1,000 |
| 0805 | 2012 | HZ0805D152R-10 | 289 | 1,500 | 333 | 166 | 1,525 | 110 | 0.40 | 400 |
| 0805 | 2012 | HZ0805C202R-10 | 350 | 2,000 | 300 | 150 | 2,000 | 100 | 0.50 | 300 |
| 0805 | 2012 | HZ0805B222R-10 | 648 | 2,200 | 419 | 213 | 2,200 | 100 | 0.80 | 200 |
| 0805 | 2012 | HZ0805B252R-10 | 400 | 2,500 | 400 | 180 | 2,900 | 90 | 0.75 | 200 |
| 0805 | 2012 | HZ0805B272R-10 | 400 | 2,700 | 400 | 150 | 2,900 | 88 | 0.80 | 200 |
| 1206 | 3216 | HZ1206E601R-10 | 296 | 600 | 202 | 103 | 674 | 75 | 0.30 | 500 |
| 1206 | 3216 | HZ1206C202R-10 | 1,673 | 915 | 180 | 100 | 2,505 | 41 | 0.50 | 300 |
| 1206 | 3216 | HZ1206E152R-10 | 823 | 950 | 188 | 57 | 1,564 | 57 | 0.30 | 500 |
| 1206 | 3216 | HZ1206D102R-10 | 201 | 1,250 | 250 | 100 | 1,000 | 100 | 0.40 | 400 |

FOR POWER LINE

| EIA PKG. SIZE | METRIC PKG. SIZE | PART NUMBER | TYPICAL IMPEDANCE (Ω) | | | | TYPICAL PEAK IMPEDANCE (Ω) | PEAK IMPEDANCE FREQUENCY (MHz) | DCR MAX (Ω) | RATED I MAX (CONTINUOUS) mA |
|---------------|------------------|----------------|-----------------------|-------------|-------------|-----------|----------------------------|--------------------------------|-------------|-----------------------------|
| | | | Z @ 25 MHz | Z @ 100 MHz | Z @ 500 MHz | Z @ 1 GHz | | | | |
| 0402 | 1005 | MI0402L100R-10 | 3.6 | 10 | 14 | 13.2 | 15 | 510 | 0.10 | 2,000 |
| 0402 | 1005 | LI0402E190R-10 | 6 | 19 | 43 | 56 | 59 | 1,519 | 0.10 | 500 |
| 0402 | 1005 | LI0402C220R-10 | 9 | 22 | 30 | 31 | 31 | 830 | 0.20 | 300 |
| 0402 | 1005 | LI0402E300R-10 | 9 | 30 | 50 | 57 | 58 | 1,195 | 0.30 | 500 |
| 0402 | 1005 | LI0402C470R-10 | 15 | 47 | 76 | 90 | 92 | 1,402 | 0.15 | 300 |
| 0402 | 1005 | LI0402E600R-10 | 29 | 60 | 90 | 57 | 97 | 801 | 0.30 | 500 |
| 0402 | 1005 | LI0402E750R-10 | 30 | 75 | 92 | 92 | 93 | 710 | 0.10 | 500 |
| 0402 | 1005 | LI0402B800R-10 | 32 | 80 | 220 | 224 | 243 | 769 | 0.80 | 200 |
| 0402 | 1005 | LI0402E800R-10 | 34 | 80 | 126 | 132 | 243 | 867 | 0.17 | 500 |
| 0402 | 1005 | LI0402D121R-10 | 40 | 120 | 205 | 195 | 213 | 682 | 0.40 | 400 |
| 0402 | 1005 | MI0402K121R-10 | 52 | 120 | 160 | 132 | 160 | 500 | 0.13 | 1,500 |
| 0402 | 1005 | LI0402C221R-10 | 72 | 220 | 443 | 243 | 453 | 440 | 0.35 | 300 |
| 0402 | 1005 | LI0402B301R-10 | 96 | 300 | 454 | 351 | 549 | 374 | 0.80 | 200 |
| 0402 | 1005 | HZ0402B102R-10 | 225 | 1,000 | 489 | 222 | 1,116 | 182 | 1.00 | 200 |
| 0603 | 1608 | MI0603K300R-10 | 12 | 30 | 43 | 45 | 45 | 1,000 | 0.09 | 1,500 |
| 0603 | 1608 | HI0603N300R-10 | 13 | 30 | 44 | 48 | 54 | 1,000 | 0.04 | 3,000 |
| 0603 | 1608 | HI0603R300R-10 | 13 | 30 | 44 | 45 | 47 | 950 | 0.01 | 5,000 |
| 0603 | 1608 | HI0603N330R-10 | 13 | 33 | 44 | 54 | 54 | 1,000 | 0.025 | 3,000 |
| 0603 | 1608 | LI0603E470R-10 | 17 | 47 | 83 | 91 | 91 | 1,000 | 0.10 | 500 |
| 0603 | 1608 | MI0603J600R-10 | 25 | 60 | 91 | 92 | 95 | 700 | 0.10 | 1,000 |
| 0603 | 1608 | HI0603P600R-10 | 25 | 60 | 85 | 83 | 95 | 738 | 0.03 | 4,000 |
| 0603 | 1608 | MI0603J680R-10 | 35 | 68 | 106 | 99 | 110 | 650 | 0.10 | 1,000 |
| 0603 | 1608 | HI0603O700R-10 | 32 | 70 | 91 | 94 | 98 | 600 | 0.02 | 3,500 |
| 0603 | 1608 | LI0603G800R-10 | 32 | 80 | 100 | 91 | 100 | 500 | 0.20 | 700 |

FOR POWER LINE

| EIA PKG. SIZE | METRIC PKG. SIZE | PART NUMBER | TYPICAL IMPEDANCE (Ω) | | | | TYPICAL PEAK IMPEDANCE (Ω) | PEAK IMPEDANCE FREQUENCY (MHZ) | DCR MAX (Ω) | RATED I MAX (CONTINUOUS) MA |
|---------------------|------------------------|----------------|-----------------------|----------------|----------------|-------------|----------------------------------|--------------------------------------|----------------|-----------------------------------|
| | | | Z @ 25 MHZ | Z @ 100 MHZ | Z @ 500 MHZ | Z@ 1 GHZ | | | | |
| 0603 | 1608 | LI0603G121R-10 | 52 | 120 | 156 | 113 | 177 | 389 | 0.20 | 700 |
| 0603 | 1608 | MI0603M121R-10 | 55 | 120 | 169 | 138 | 170 | 420 | 0.05 | 2,500 |
| 0603 | 1608 | LI0603E151R-10 | 61 | 150 | 197 | 131 | 209 | 331 | 0.25 | 500 |
| 0603 | 1608 | MI0603K181R-10 | 95 | 180 | 238 | 190 | 245 | 380 | 0.09 | 1,500 |
| 0603 | 1608 | LI0603B201R-10 | 70 | 200 | 340 | 210 | 362 | 420 | 0.40 | 200 |
| 0603 | 1608 | LI0603G221R-10 | 98 | 220 | 279 | 168 | 283 | 251 | 0.30 | 700 |
| 0603 | 1608 | MI0603L221R-10 | 107 | 220 | 219 | 121 | 240 | 280 | 0.05 | 2,000 |
| 0603 | 1608 | LI0603D301R-10 | 144 | 300 | 286 | 165 | 389 | 261 | 0.35 | 400 |
| 0603 | 1608 | MI0603L301R-10 | 50 | 300 | 225 | 120 | 410 | 200 | 0.10 | 2,000 |
| 0603 | 1608 | HZ0603B471R-10 | 94 | 470 | 560 | 253 | 1,060 | 240 | 0.85 | 200 |
| 0603 | 1608 | MI0603J471R-10 | 203 | 470 | 398 | 181 | 580 | 210 | 0.20 | 1,000 |
| 0603 | 1608 | MI0603K471R-10 | 237 | 470 | 350 | 193 | 562 | 197 | 0.15 | 1,500 |
| 0603 | 1608 | HZ0603C601R-10 | 232 | 600 | 360 | 171 | 775 | 168 | 0.45 | 300 |
| 0603 | 1608 | MI0603J601R-10 | 225 | 600 | 400 | 200 | 620 | 150 | 0.20 | 1,000 |
| 0603 | 1608 | HZ0603C651R-10 | 296 | 650 | 954 | 652 | 960 | 400 | 0.60 | 300 |
| 0603 | 1608 | HZ0603B751R-10 | 302 | 750 | 437 | 198 | 863 | 137 | 0.60 | 200 |
| 0603 | 1608 | HZ0603B102R-10 | 453 | 1,000 | 380 | 200 | 1,000 | 100 | 0.60 | 200 |
| 0603 | 1608 | MI0603J102R-10 | 432 | 1,000 | 400 | 196 | 1,000 | 120 | 0.20 | 1,000 |
| 0603 | 1608 | HZ0603B112R-10 | 515 | 1,100 | 1,300 | 850 | 1,539 | 288 | 0.80 | 200 |
| 0603 | 1608 | HZ0603C152R-10 | 319 | 1,500 | 462 | 190 | 1,590 | 135 | 0.60 | 300 |
| 0805 | 2012 | MI0805K110R-10 | 5 | 11 | 18 | 19 | 20 | 1,000 | 0.06 | 1,500 |
| 0805 | 2012 | HI0805Q310R-10 | 12 | 31 | 42 | 44 | 45 | 800 | 0.025 | 4,500 |
| 0805 | 2012 | HI0805N310R-10 | 17 | 31 | 41 | 39 | 42 | 510 | 0.03 | 3,000 |
| 0805 | 2012 | HI0805P390R-10 | 17 | 39 | 59 | 65 | 65 | 1,050 | 0.008 | 4,000 |
| 0805 | 2012 | LI0805H400R-10 | 18 | 40 | 70 | 76 | 76 | 1,000 | 0.15 | 800 |
| 0805 | 2012 | MI0805K400R-10 | 19 | 40 | 60 | 63 | 69 | 903 | 0.05 | 1,500 |
| 0805 | 2012 | HI0805T500R-10 | 25 | 50 | 64 | 59 | 65 | 490 | 0.01 | 6,000 |
| 0805 | 2012 | HI0805N600R-10 | 34 | 60 | 80 | 75 | 81 | 500 | 0.04 | 3,000 |
| 0805 | 2012 | LI0805H750R-10 | 31 | 75 | 128 | 130 | 132 | 769 | 0.15 | 800 |
| 0805 | 2012 | HI0805R800R-10 | 38 | 80 | 70 | 38 | 100 | 200 | 0.01 | 5,000 |
| 0805 | 2012 | LI0805H121R-10 | 53 | 120 | 170 | 114 | 170 | 340 | 0.15 | 800 |
| 0805 | 2012 | HI0805O121R-10 | 61 | 120 | 140 | 80 | 167 | 270 | 0.02 | 3,500 |
| 0805 | 2012 | HI0805R121R-10 | 47 | 120 | 98 | 58 | 149 | 205 | 0.03 | 5,000 |
| 0805 | 2012 | HI0805P121R-10 | 45 | 120 | 102 | 64 | 125 | 240 | 0.02 | 4,000 |
| 0805 | 2012 | LI0805H151R-10 | 73 | 150 | 207 | 150 | 210 | 400 | 0.15 | 800 |
| 0805 | 2012 | LI0805G201R-10 | 100 | 200 | 221 | 128 | 272 | 250 | 0.30 | 700 |
| 0805 | 2012 | MI0805M221R-10 | 100 | 220 | 274 | 115 | 287 | 260 | 0.05 | 2,500 |
| 0805 | 2012 | HI0805N221R-10 | 81 | 220 | 113 | 115 | 283 | 220 | 0.04 | 3,000 |
| 0805 | 2012 | LI0805G301R-10 | 124 | 300 | 248 | 146 | 350 | 205 | 0.20 | 700 |
| 0805 | 2012 | MI0805L301R-10 | 135 | 300 | 271 | 147 | 350 | 200 | 0.06 | 2,000 |
| 0805 | 2012 | MI0805L331R-10 | 148 | 330 | 264 | 143 | 197 | 393 | 0.06 | 2,000 |
| 0805 | 2012 | HZ0805G471R-10 | 221 | 470 | 286 | 150 | 572 | 149 | 0.20 | 700 |
| 0805 | 2012 | HZ0805E601R-10 | 277 | 600 | 304 | 151 | 696 | 155 | 0.30 | 500 |
| 0805 | 2012 | MI0805K601R-10 | 280 | 600 | 240 | 120 | 723 | 130 | 0.10 | 1,500 |
| 0805 | 2012 | MI0805L601R-10 | 264 | 600 | 316 | 172 | 663 | 155 | 0.10 | 2,000 |
| 0805 | 2012 | HZ0805D102R-10 | 280 | 1,000 | 328 | 168 | 1,268 | 113 | 0.30 | 400 |
| 0805 | 2012 | MI0805J102R-10 | 195 | 1,000 | 226 | 108 | 1,112 | 120 | 0.15 | 1,000 |
| 0805 | 2012 | HZ0805D152R-10 | 289 | 1,500 | 333 | 166 | 1,525 | 110 | 0.40 | 400 |
| 0805 | 2012 | HZ0805C202R-10 | 350 | 2,000 | 300 | 150 | 2,000 | 100 | 0.50 | 300 |
| 1206 | 3216 | MI1206K260R-10 | 12 | 26 | 44 | 46 | 46 | 1,000 | 0.06 | 1,500 |
| 1206 | 3216 | MI1206K310R-10 | 12 | 31 | 37 | 41 | 41 | 1,000 | 0.045 | 1,500 |
| 1206 | 3216 | HI1206T500R-10 | 19 | 50 | 66 | 70 | 70 | 1,000 | 0.01 | 6,000 |
| 1206 | 3216 | HI1206N680R-10 | 29 | 68 | 93 | 102 | 102 | 1,000 | 0.012 | 3,000 |
| 1206 | 3216 | HI1206N800R-10 | 38 | 80 | 120 | 129 | 130 | 800 | 0.035 | 3,000 |
| 1206 | 3216 | MI1206K900R-10 | 44 | 90 | 142 | 150 | 154 | 867 | 0.08 | 1,500 |
| 1206 | 3216 | HI1206N101R-10 | 41 | 100 | 144 | 145 | 150 | 600 | 0.035 | 3,000 |
| 1206 | 3216 | LI1206H121R-10 | 53 | 120 | 144 | 135 | 145 | 422 | 0.15 | 800 |
| 1206 | 3216 | HI1206P121R-10 | 56 | 120 | 130 | 105 | 142 | 300 | 0.03 | 4,000 |
| 1206 | 3216 | LI1206H151R-10 | 73 | 150 | 173 | 123 | 182 | 241 | 0.15 | 800 |
| 1206 | 3216 | HI1206T161R-10 | 71 | 160 | 220 | 127 | 229 | 251 | 0.018 | 6,000 |
| 1206 | 3216 | MI1206L391R-10 | 100 | 390 | 160 | 90 | 460 | 130 | 0.05 | 2,000 |

FOR POWER LINE

| EIA PKG. SIZE | METRIC PKG. SIZE | PART NUMBER | TYPICAL IMPEDANCE (Ω) | | | | TYPICAL PEAK IMPEDANCE (Ω) | PEAK IMPEDANCE FREQUENCY (MHZ) | DCR MAX (Ω) | RATED I MAX (CONTINUOUS) MA |
|---------------|------------------|----------------|-----------------------|-------------|-------------|-----------|----------------------------|--------------------------------|-------------|-----------------------------|
| | | | Z @ 25 MHz | Z @ 100 MHz | Z @ 500 MHz | Z @ 1 GHz | | | | |
| 1206 | 3216 | MI1206L501R-10 | 210 | 500 | 150 | 82 | 500 | 100 | 0.06 | 2,000 |
| 1206 | 3216 | HZ1206E601R-10 | 296 | 600 | 202 | 103 | 674 | 75 | 0.30 | 500 |
| 1206 | 3216 | MI1206K601R-10 | 300 | 600 | 250 | 130 | 650 | 80 | 0.08 | 1,500 |
| 1206 | 3216 | MI1206L601R-10 | 296 | 600 | 116 | 59 | 660 | 79 | 0.08 | 2,000 |
| 1206 | 3216 | HZ1206E152R-10 | 823 | 950 | 188 | 57 | 1,564 | 57 | 0.30 | 500 |
| 1206 | 3216 | HZ1206C202R-10 | 1,673 | 915 | 180 | 100 | 2,505 | 41 | 0.50 | 300 |
| 1206 | 3216 | HZ1206D102R-10 | 201 | 1,000 | 185 | 100 | 1,000 | 100 | 0.40 | 400 |
| 1210 | 3225 | MI1210K600R-10 | 30 | 60 | 90 | 95 | 105 | 900 | 0.035 | 1,500 |
| 1612 | 4131 | HI1612X560R-10 | 23 | 56 | 75 | 79 | 79 | 1,000 | 0.004 | 10,000 |
| 1806 | 4516 | HI1806T600R-10 | 28 | 60 | 87 | 92 | 92 | 1,000 | 0.01 | 6,000 |
| 1806 | 4516 | LI1806E800R-10 | 28 | 80 | 117 | 117 | 117 | 1,000 | 0.30 | 500 |
| 1806 | 4516 | MI1806J800R-10 | 34 | 78 | 114 | 118 | 119 | 903 | 0.03 | 1,000 |
| 1806 | 4516 | HI1806N910R-10 | 42 | 91 | 140 | 150 | 150 | 1,000 | 0.03 | 3,000 |
| 1806 | 4516 | LI1806E101R-10 | 45 | 100 | 157 | 164 | 166 | 966 | 0.30 | 500 |
| 1806 | 4516 | LI1806C151R-10 | 60 | 150 | 219 | 222 | 223 | 871 | 0.50 | 300 |
| 1806 | 4516 | HZ1806K102R-10 | 60 | 1,000 | 160 | 80 | 1,390 | 135 | 0.15 | 1,500 |
| 1812 | 4532 | HI1812T800R-10 | 30 | 80 | 97 | 107 | 107 | 1,000 | 0.01 | 6,000 |
| 1812 | 4532 | HI1812V101R-10 | 45 | 100 | 136 | 134 | 139 | 800 | 0.01 | 8,000 |
| 1812 | 4532 | LI1812D121R-10 | 55 | 120 | 182 | 184 | 186 | 738 | 0.40 | 400 |
| 1812 | 4532 | MI1812K121R-10 | 45 | 120 | 162 | 170 | 175 | 900 | 0.055 | 1,500 |
| 2220 | 5620 | HI2220T101R-10 | 50 | 100 | 148 | 152 | 160 | 600 | 0.006 | 6,000 |
| 2220 | 5620 | HI2220R151R-10 | 60 | 150 | 230 | 196 | 230 | 500 | 0.015 | 5,000 |
| 2220 | 5620 | HI2220P171R-10 | 78 | 170 | 256 | 237 | 256 | 500 | 0.03 | 4,000 |
| 2220 | 5620 | HI2220R181R-10 | 80 | 180 | 263 | 234 | 270 | 400 | 0.02 | 5,000 |
| 2220 | 5620 | HI2220P251R-10 | 100 | 250 | 172 | 91 | 390 | 200 | 0.015 | 4,000 |
| 2220 | 5620 | HI2220P271R-10 | 110 | 270 | 360 | 250 | 390 | 300 | 0.035 | 4,000 |
| 2220 | 5620 | HI2220R301R-10 | 100 | 300 | 190 | 100 | 380 | 200 | 0.02 | 5,000 |
| 2220 | 5620 | HI2220Q401R-10 | 100 | 400 | 159 | 99 | 450 | 150 | 0.03 | 4,500 |
| 2220 | 5620 | HI2220P551R-10 | 180 | 550 | 670 | 343 | 850 | 300 | 0.035 | 4,000 |
| 2220 | 5620 | HI2220P601R-10 | 220 | 600 | 184 | 106 | 600 | 100 | 0.025 | 4,000 |
| 2220 | 5620 | HR2220P601R-10 | 200 | 600 | 150 | 75 | 600 | 100 | 0.025 | 4,000 |
| 2220 | 5620 | HI2220P701R-10 | 200 | 700 | 140 | 90 | 700 | 100 | 0.025 | 4,000 |
| 2220 | 5620 | HR2220V701R-10 | 198 | 700 | 120 | 62 | 760 | 91 | 0.01 | 8,000 |
| 2220 | 5620 | HR2220V801R-10 | 150 | 800 | 125 | 75 | 910 | 90 | 0.01 | 8,000 |
| 3312 | 8531 | HI3312X101R-10 | 39 | 100 | 160 | 172 | 172 | 1,000 | 0.004 | 10,000 |

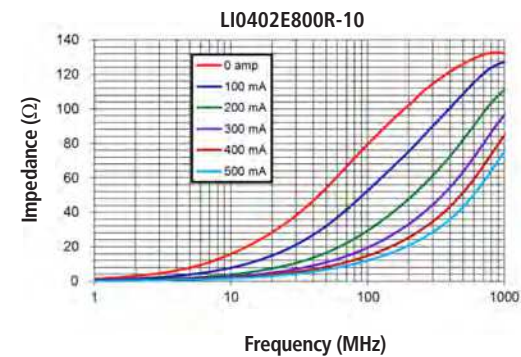
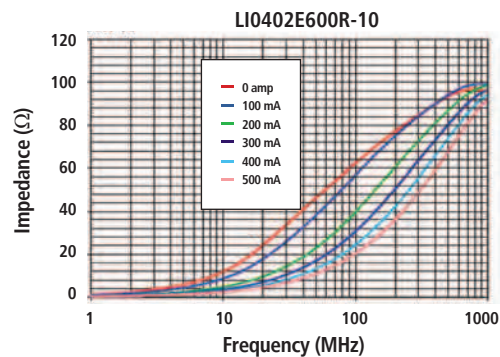
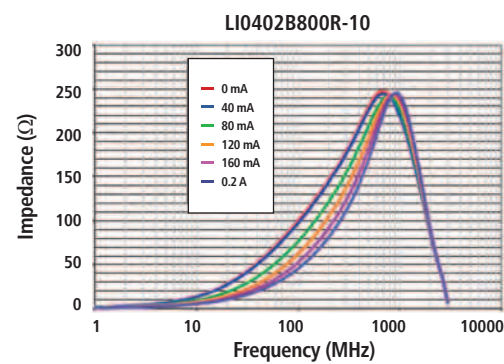
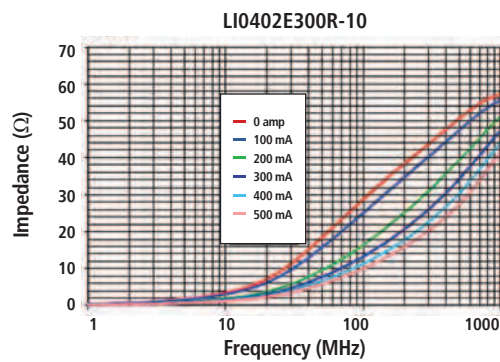
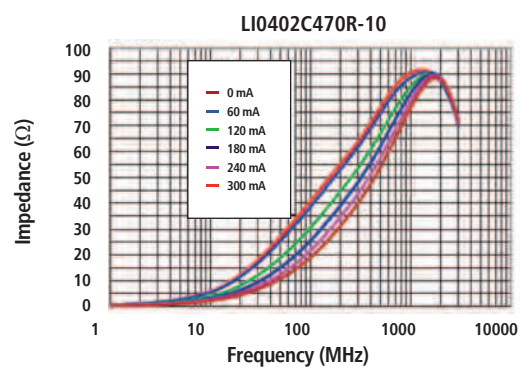
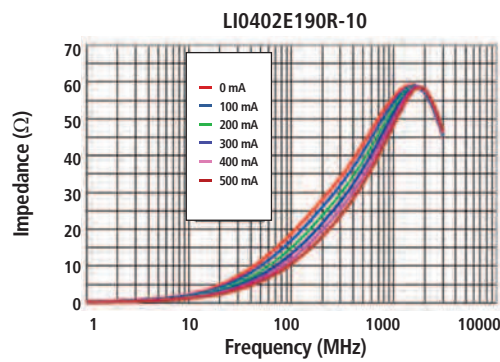
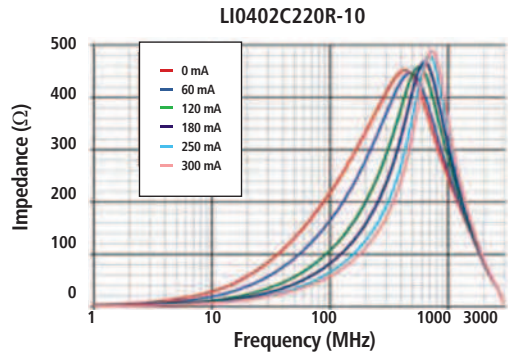
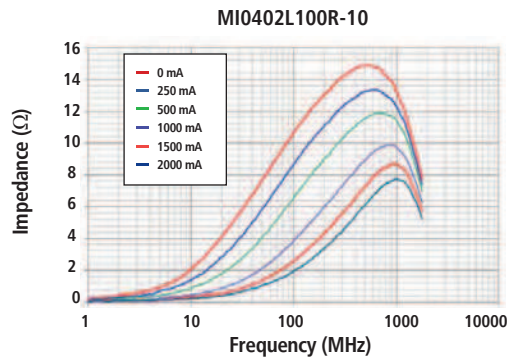
4 LINES CHIP BEAD ARRAY

| EIA PKG. SIZE | METRIC PKG. SIZE | PART NUMBER | TYPICAL IMPEDANCE (Ω) | | | | TYPICAL PEAK IMPEDANCE (Ω) | PEAK IMPEDANCE FREQUENCY (MHZ) | DCR MAX (Ω) | RATED I MAX (CONTINUOUS) MA |
|---------------|------------------|----------------|-----------------------|-------------|-------------|-----------|----------------------------|--------------------------------|-------------|-----------------------------|
| | | | Z @ 25 MHz | Z @ 100 MHz | Z @ 500 MHz | Z @ 1 GHz | | | | |
| 1206 | 3216 | DA1206E300R-10 | 10 | 30 | 55 | 56 | 56 | 1,000 | 0.30 | 500 |
| 1206 | 3216 | DA1206D600R-10 | 15 | 60 | 115 | 132 | 133 | 1,103 | 0.20 | 400 |
| 1206 | 3216 | DA1206C121R-10 | 39 | 120 | 181 | 151 | 211 | 559 | 0.20 | 300 |
| 1206 | 3216 | DA1206D301R-10 | 94 | 300 | 437 | 245 | 437 | 500 | 0.40 | 400 |
| 1206 | 3216 | DA1206B601R-10 | 180 | 600 | 475 | 230 | 761 | 214 | 0.35 | 200 |
| 1206 | 3216 | DA1206B102R-10 | 275 | 1,000 | 520 | 240 | 1,129 | 175 | 0.80 | 200 |

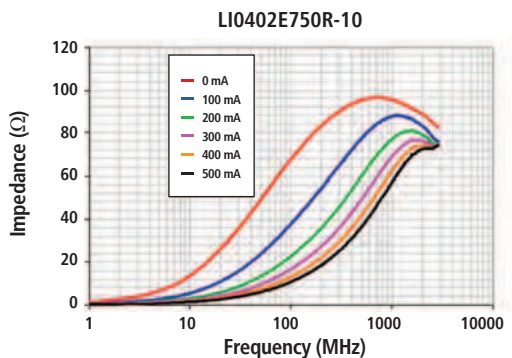
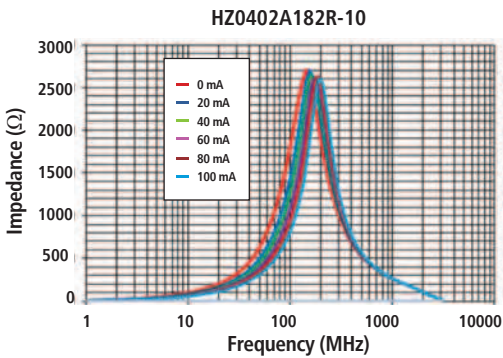
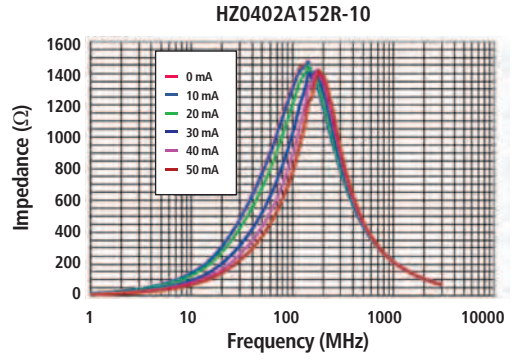
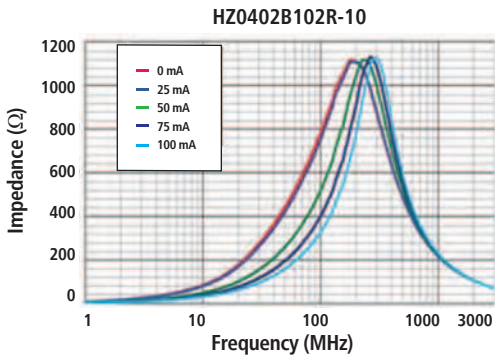
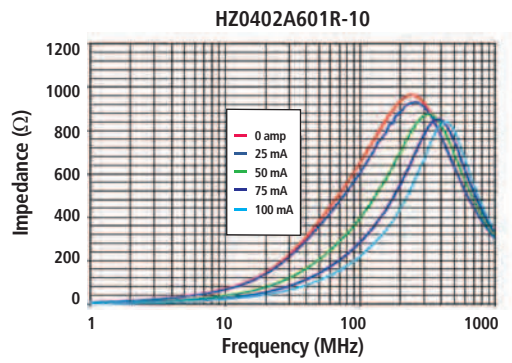
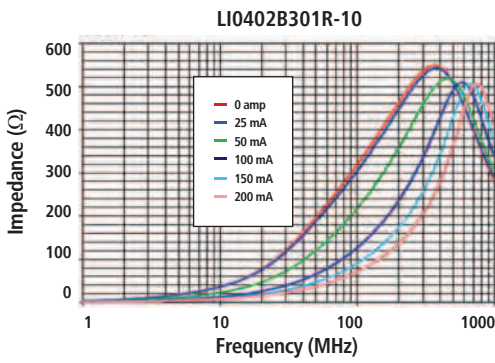
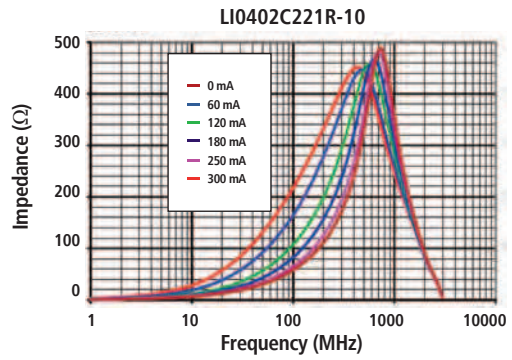
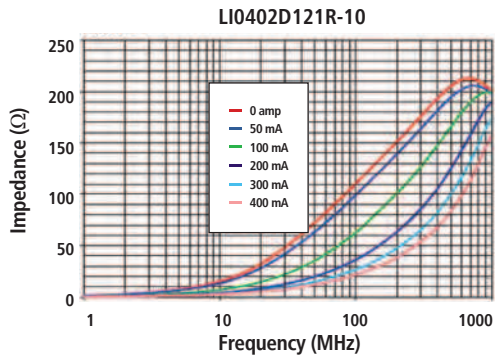
LOW FREQUENCY EMI CHIP BEADS

| EIA PKG. SIZE | METRIC PKG. SIZE | PART NUMBER | TYPICAL IMPEDANCE (Ω) | | | TYPICAL PEAK IMPEDANCE (Ω) | PEAK IMPEDANCE FREQUENCY (MHZ) | DCR MAX (Ω) | RATED I MAX (CONTINUOUS) mA |
|---------------|------------------|----------------|-----------------------|-------------|-------------|----------------------------|--------------------------------|-------------|-----------------------------|
| | | | Z | Z @ 100 MHz | Z @ 500 MHz | | | | |
| 1206 | 3216 | LF1206A302R-10 | 3,000 @ 10 MHz | 760 | 166 | 5,650 | 19 | 1.05 | 100 |
| 1206 | 3216 | LF1206C202R-10 | 2,000 @ 30 MHz | 915 | 180 | 2,505 | 41 | 0.50 | 300 |
| 1206 | 3216 | LF1206E152R-10 | 1,500 @ 50 MHz | 946 | 169 | 1,564 | 57 | 0.30 | 500 |
| 0805 | 2012 | LF0805A252R-10 | 2,500 @ 10 MHz | 1,248 | 306 | 5,138 | 25 | 1.25 | 100 |

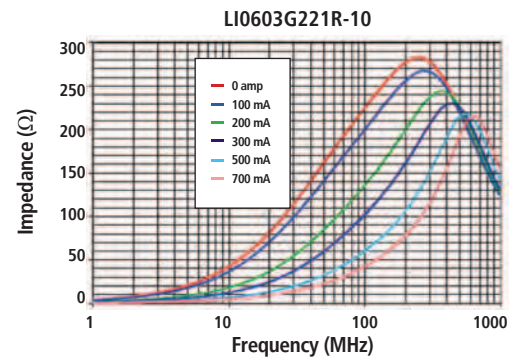
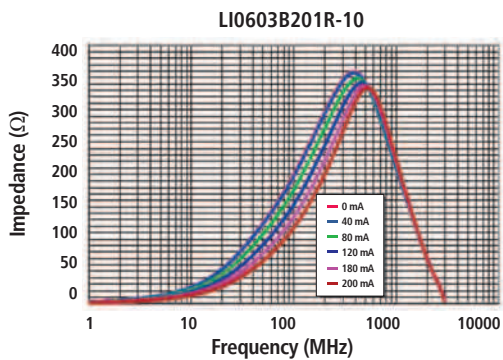
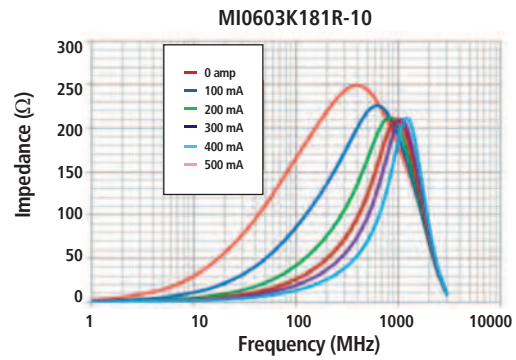
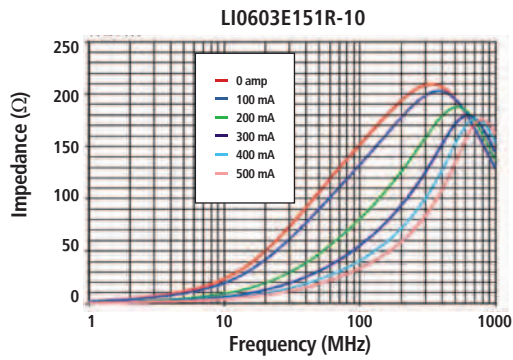
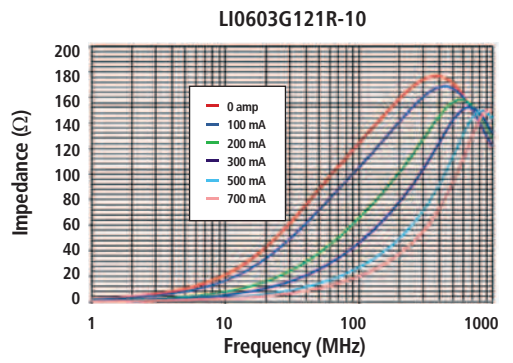
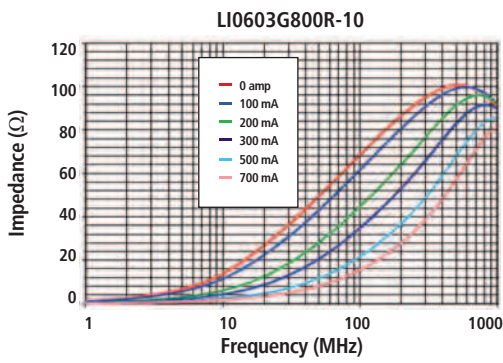
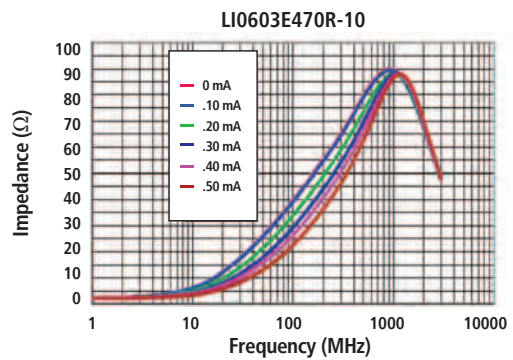
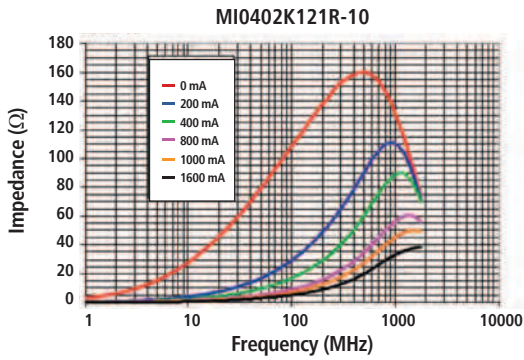
0402 Chip Bead Impedance Under DC Bias



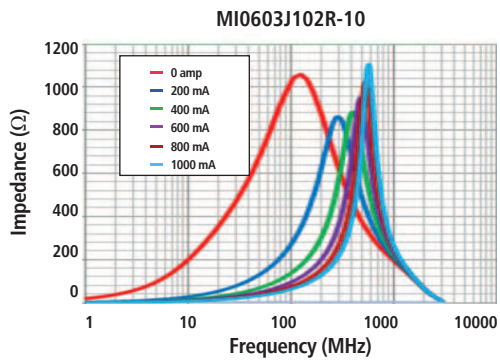
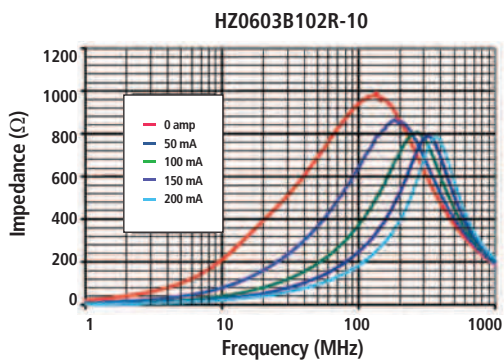
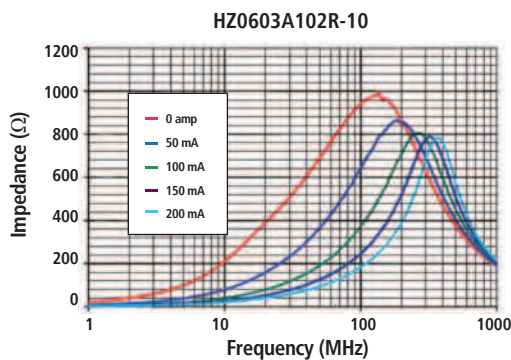
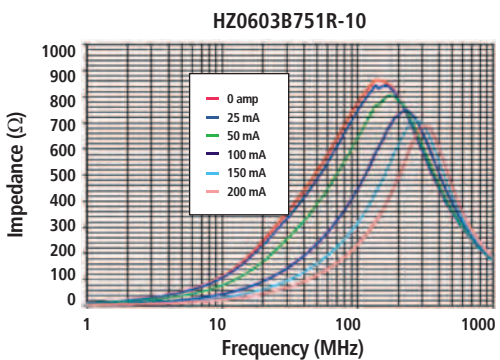
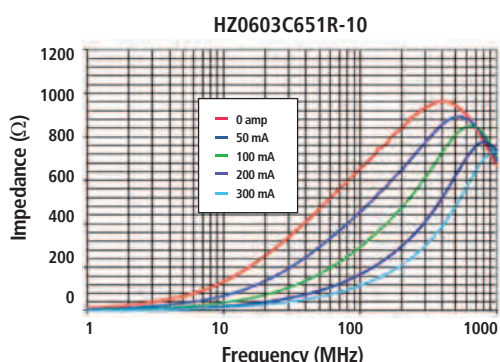
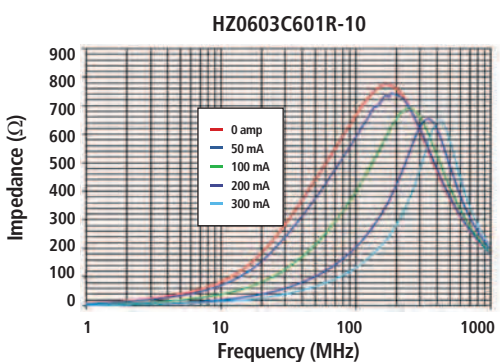
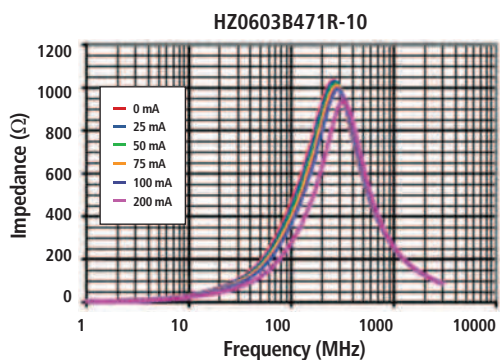
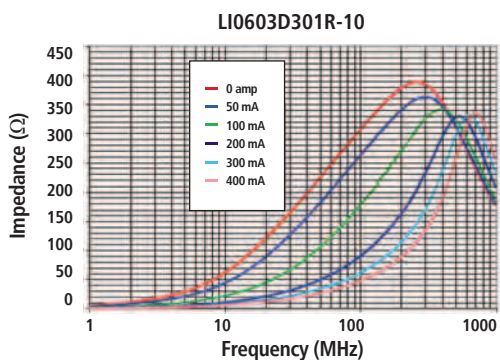
0402 Chip Bead Impedance Under DC Bias



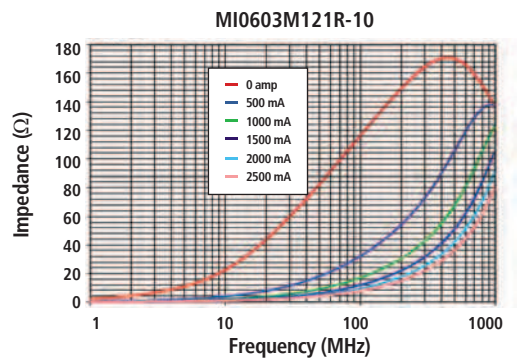
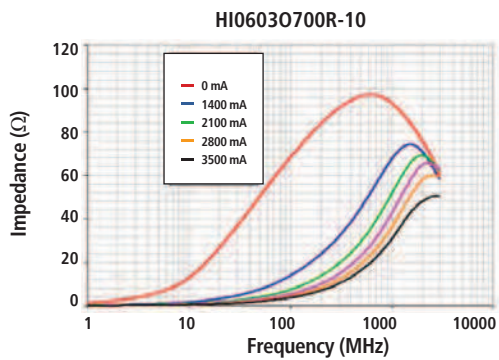
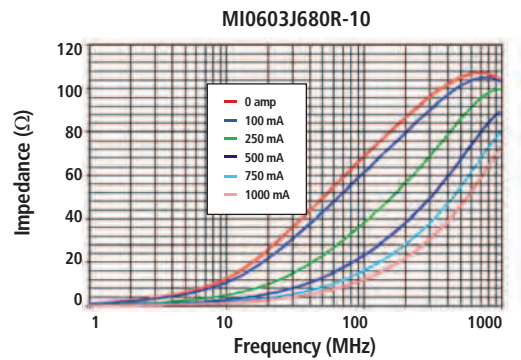
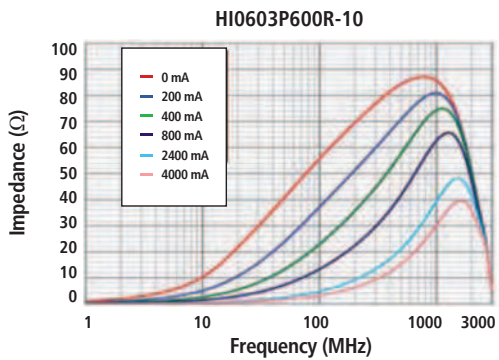
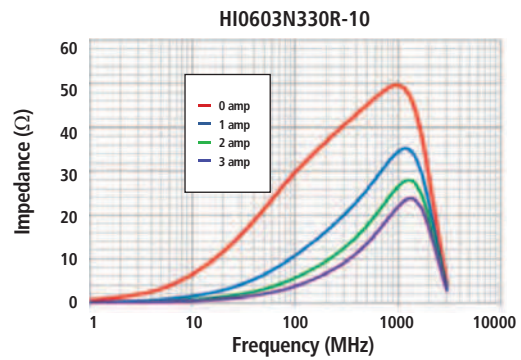
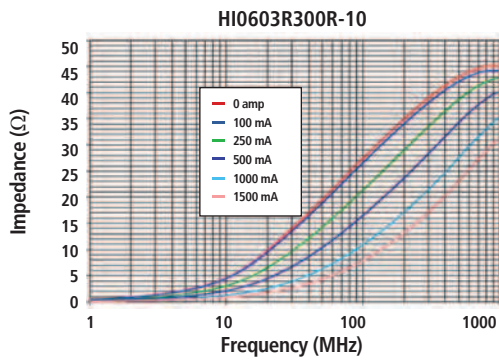
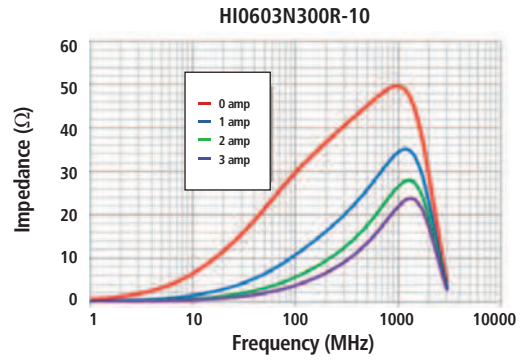
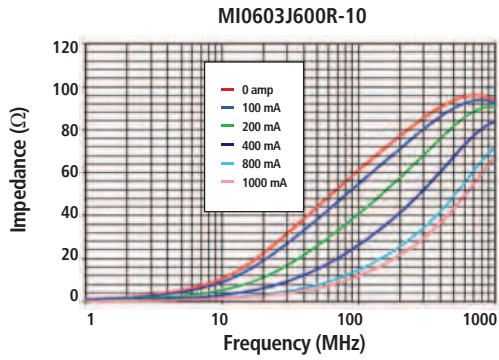
0402/0603 Chip Bead Impedance Under DC Bias



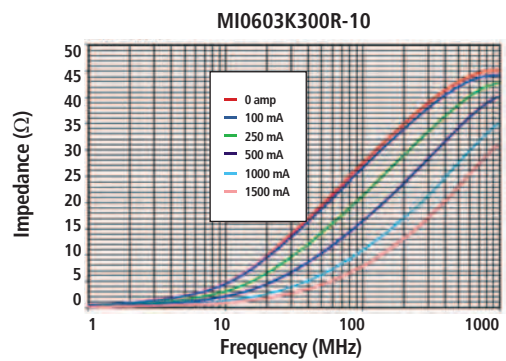
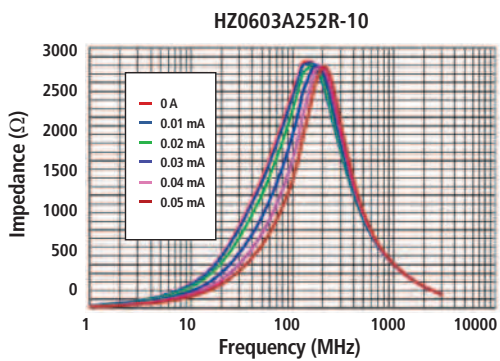
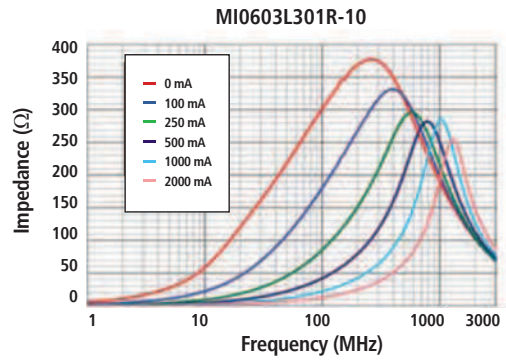
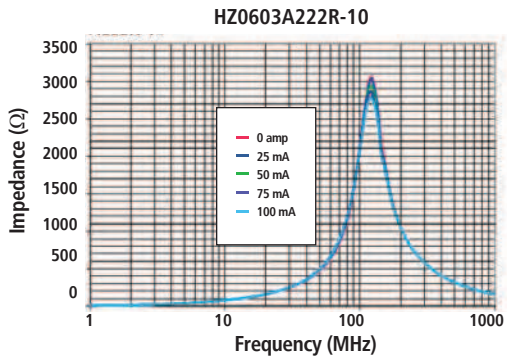
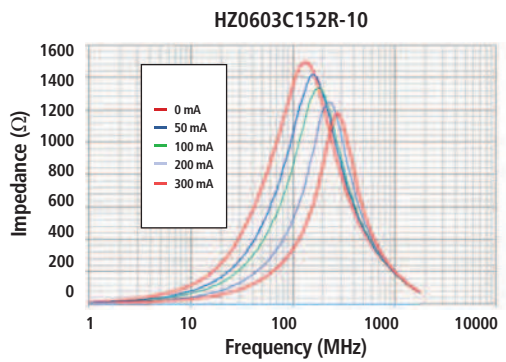
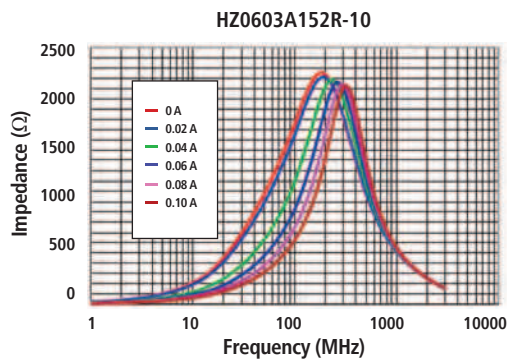
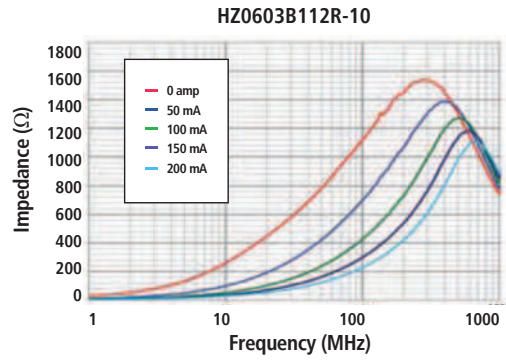
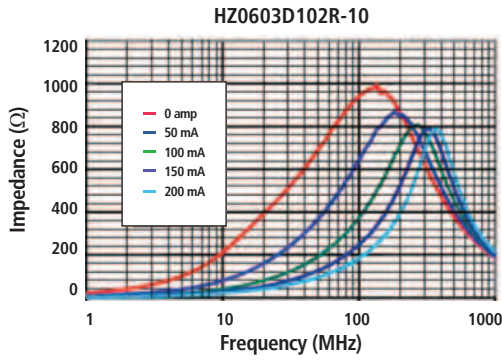
0603 Chip Bead Impedance Under DC Bias



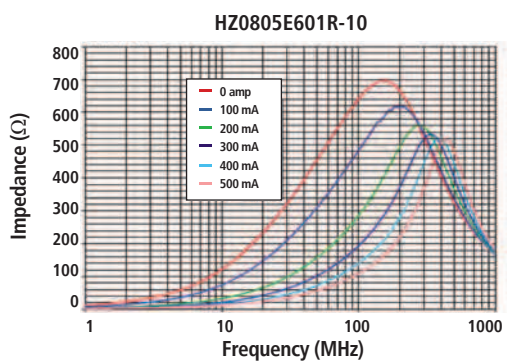
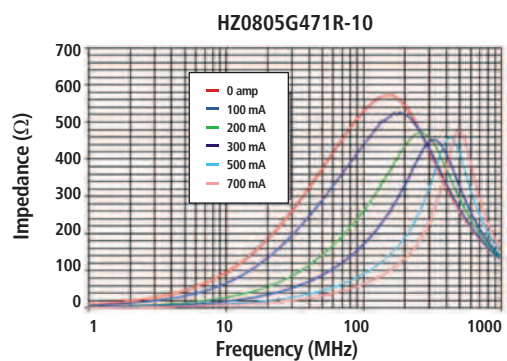
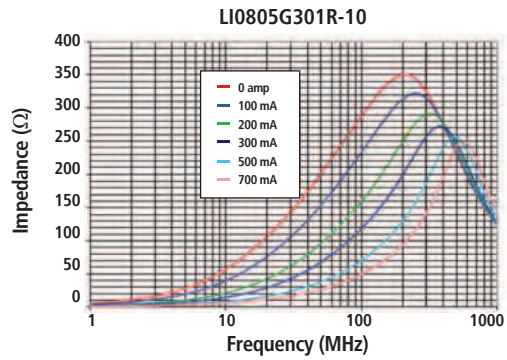
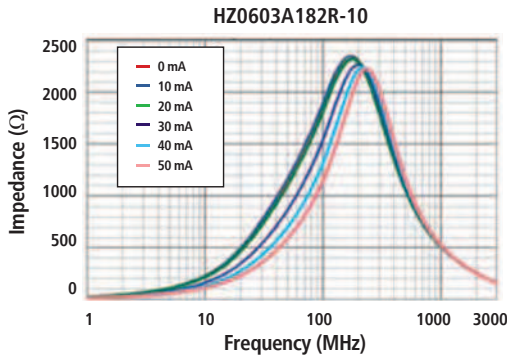
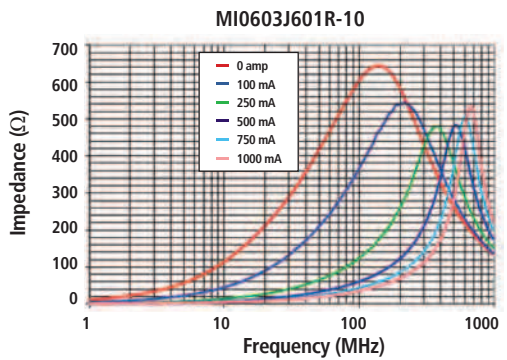
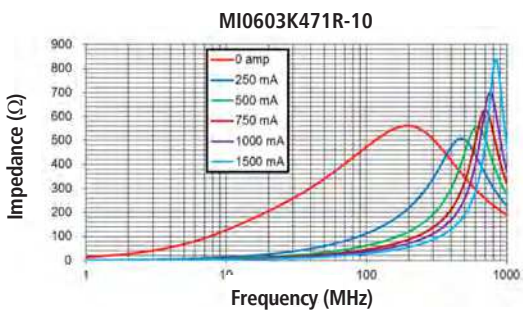
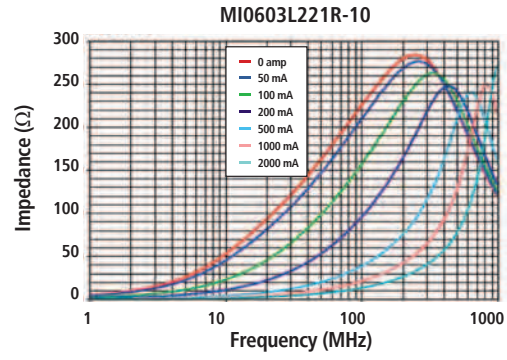
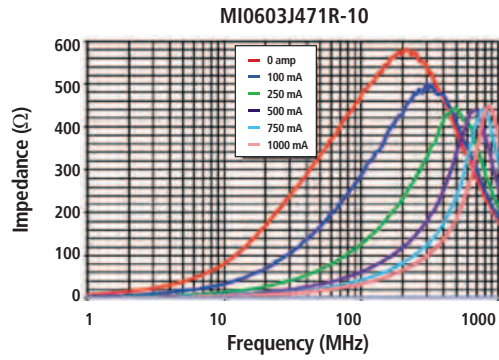
0603 Chip Bead Impedance Under DC Bias



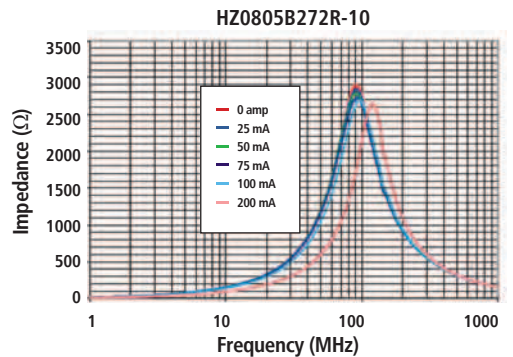
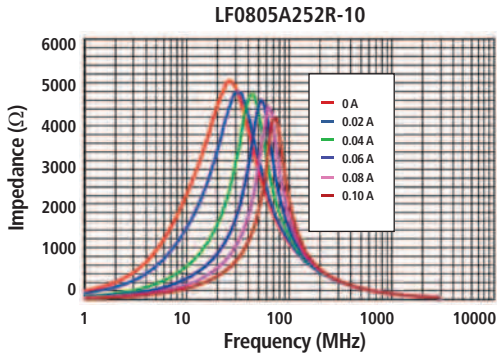
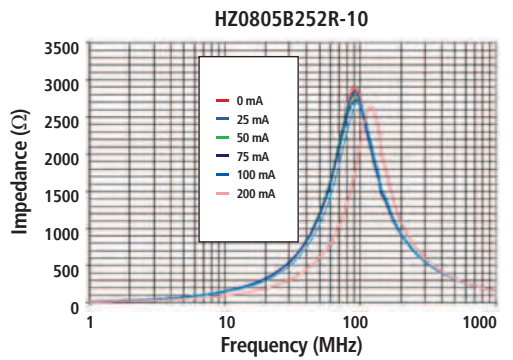
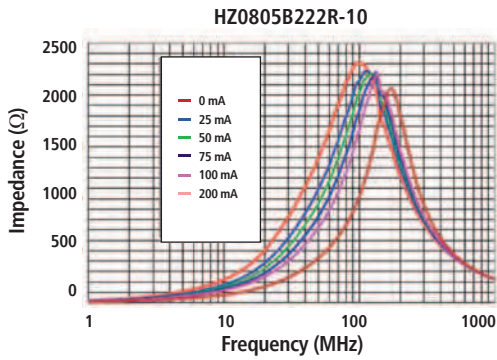
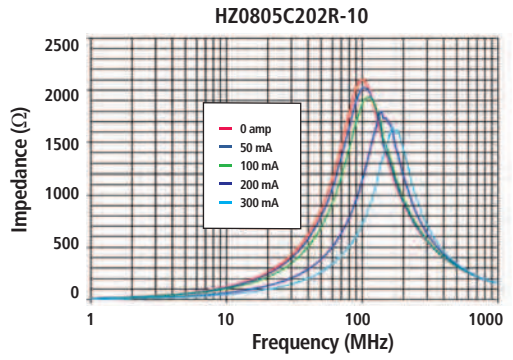
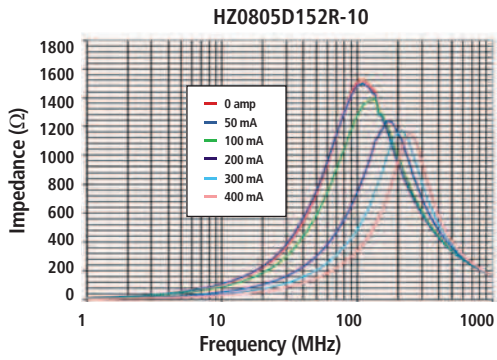
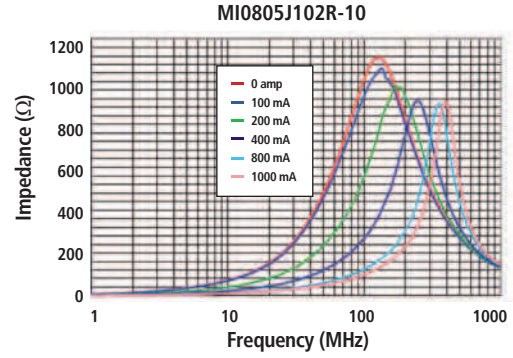
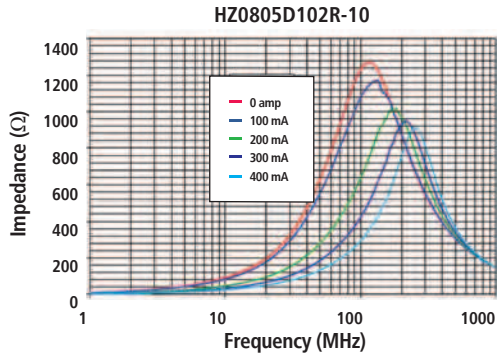
0603 Chip Bead Impedance Under DC Bias



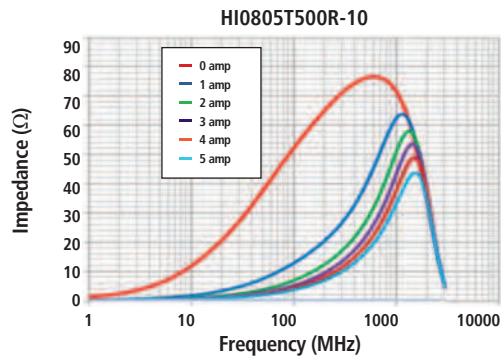
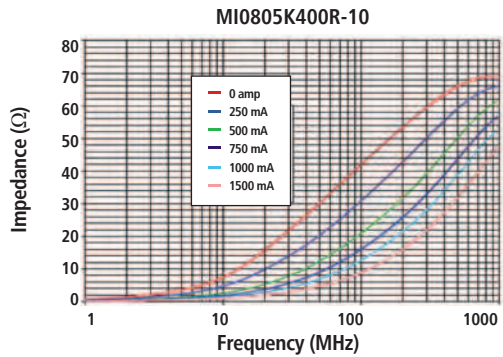
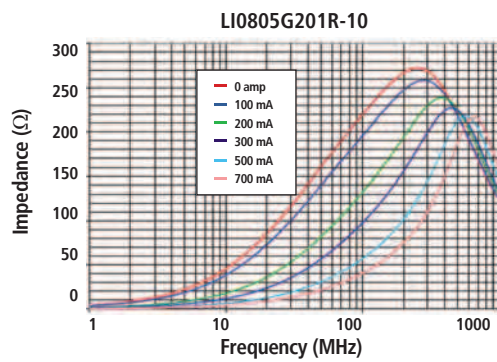
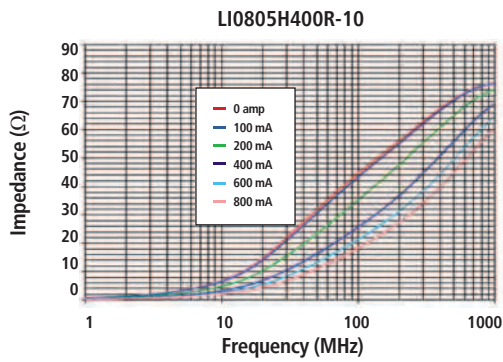
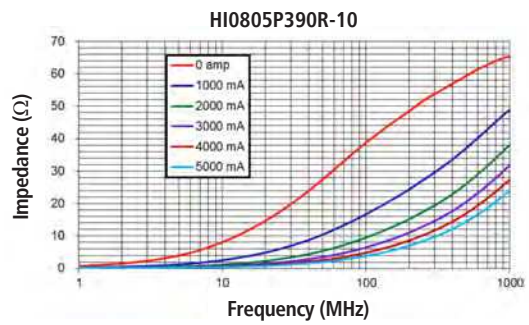
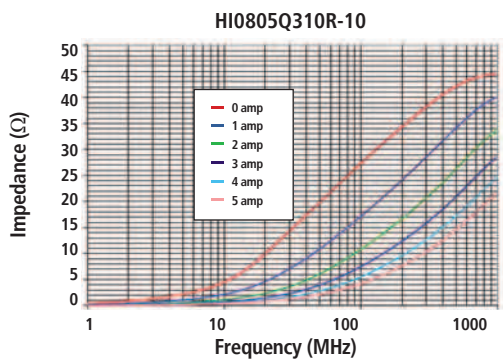
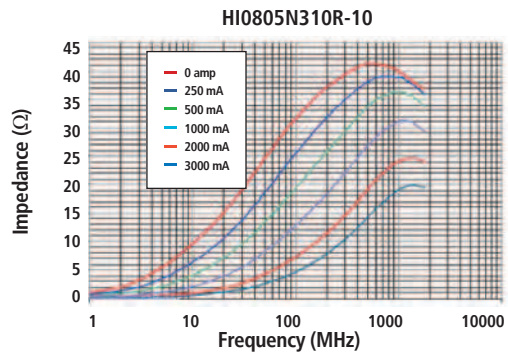
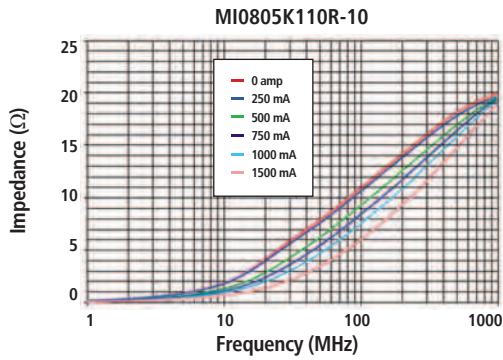
0603/0805 Chip Bead Impedance Under DC Bias



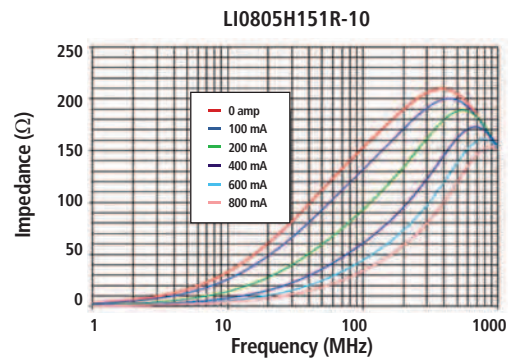
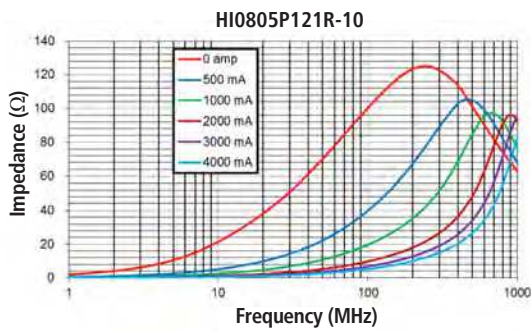
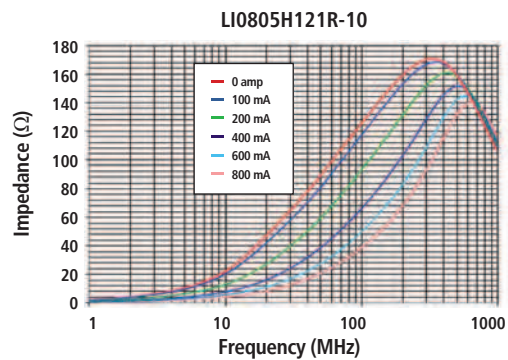
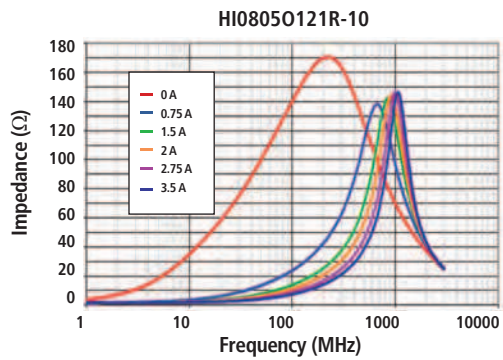
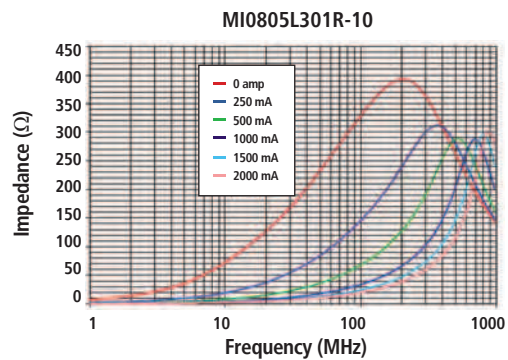
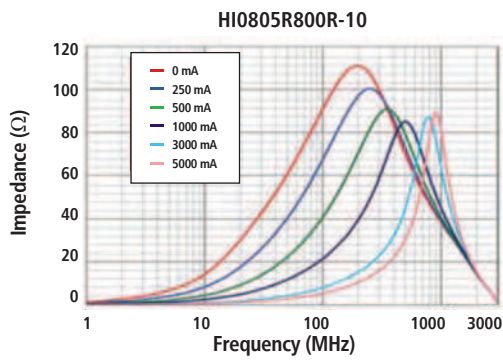
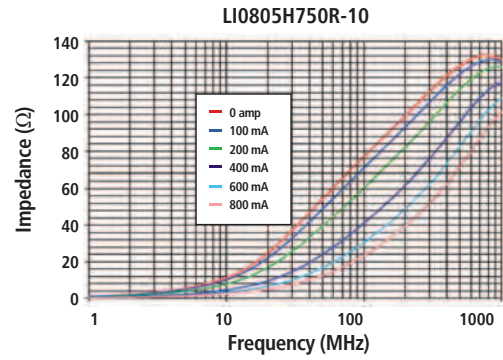
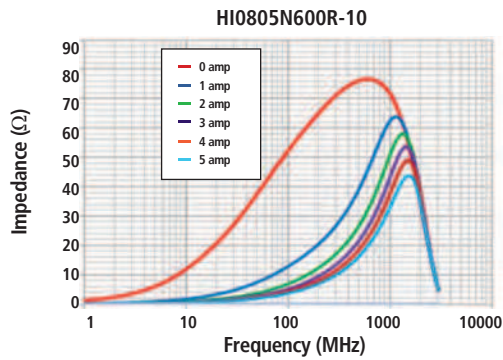
0805 Chip Bead Impedance Under DC Bias



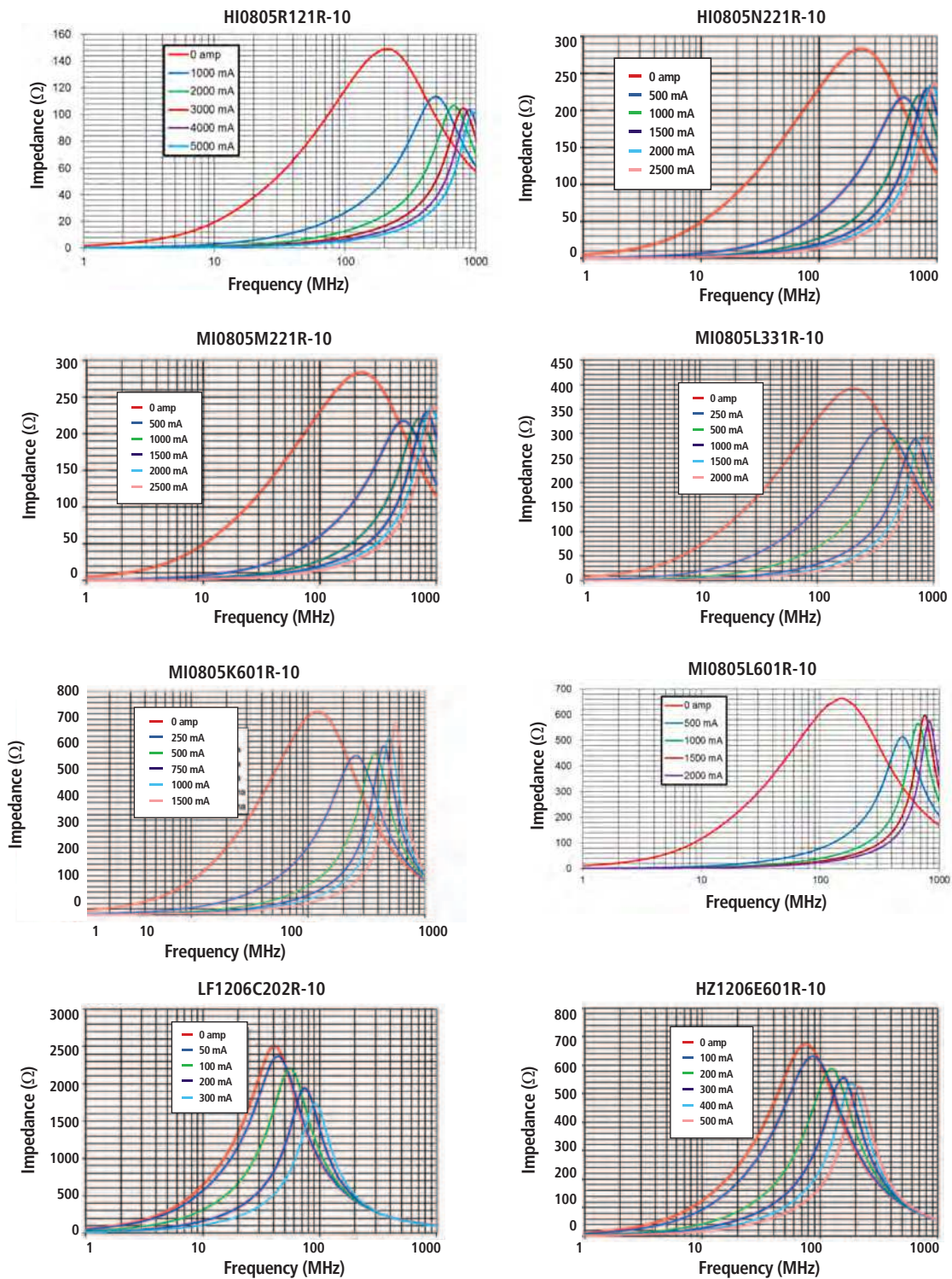
0805 Chip Bead Impedance Under DC Bias



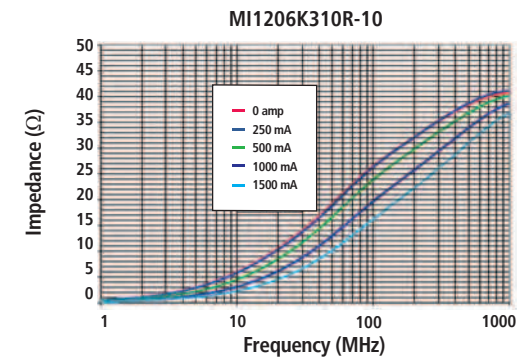
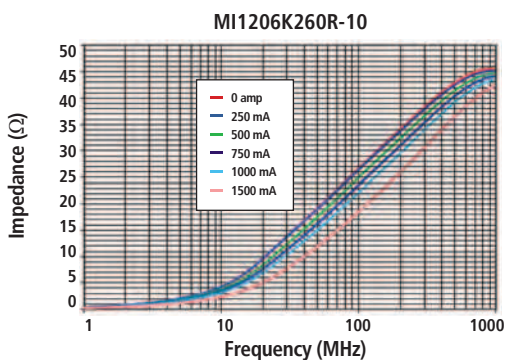
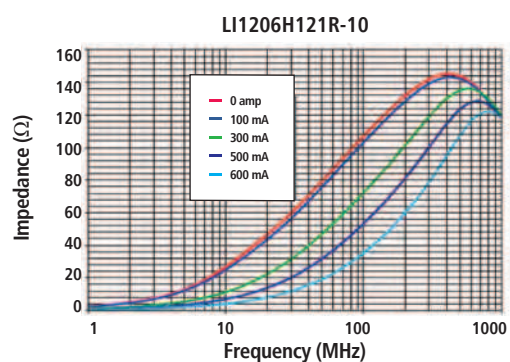
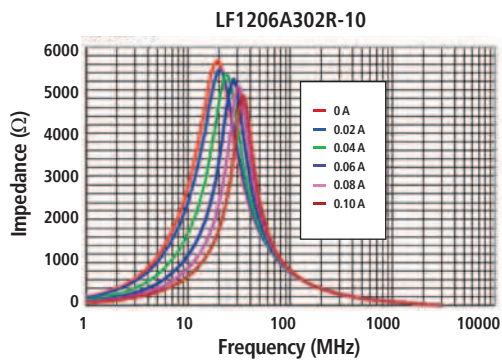
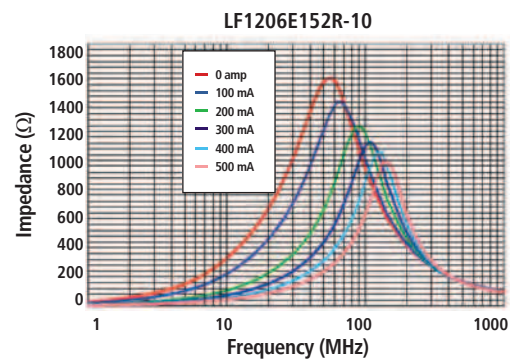
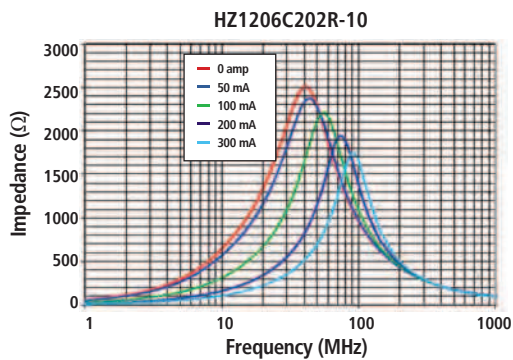
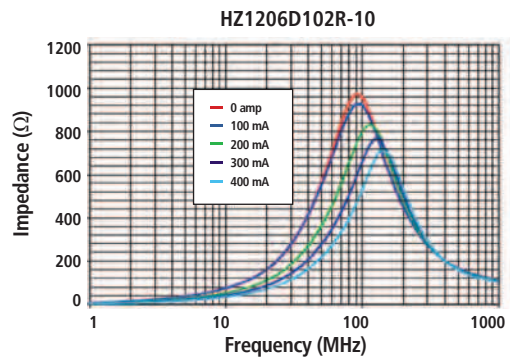
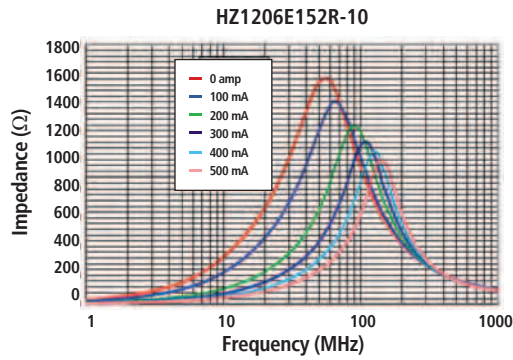
0805 Chip Bead Impedance Under DC Bias



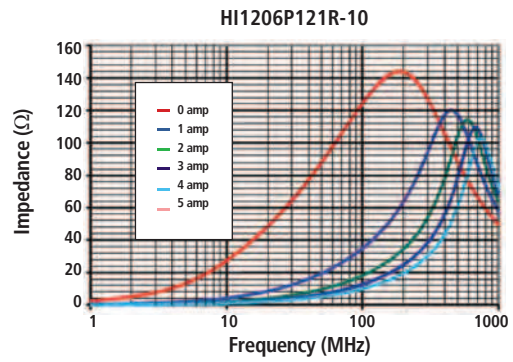
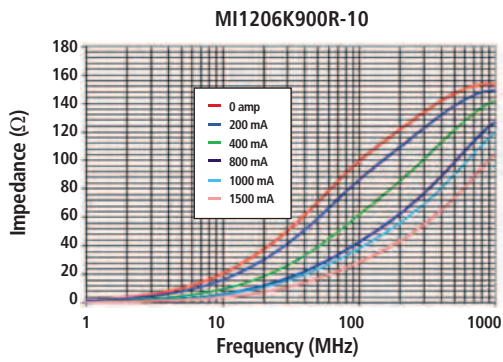
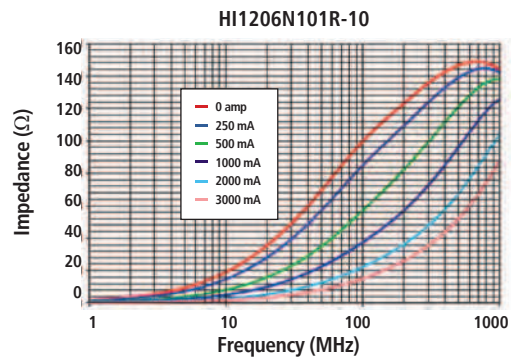
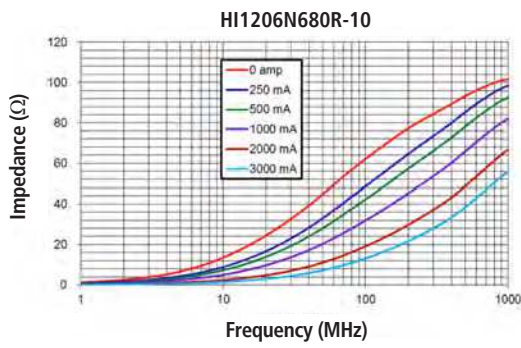
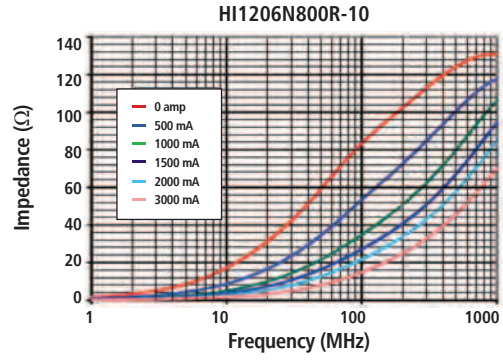
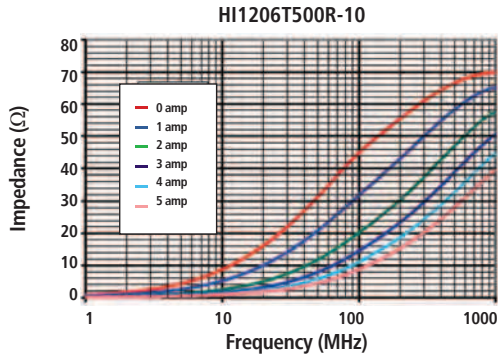
0805/1206 Chip Bead Impedance Under DC Bias



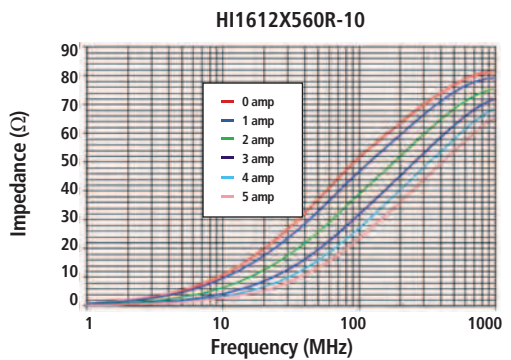
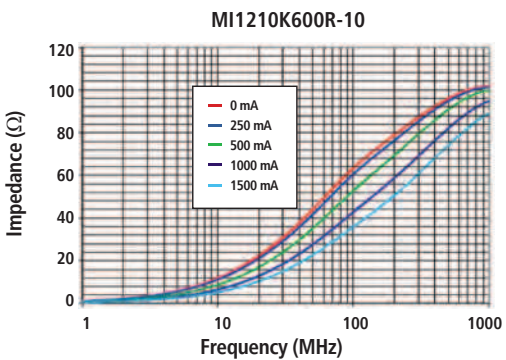
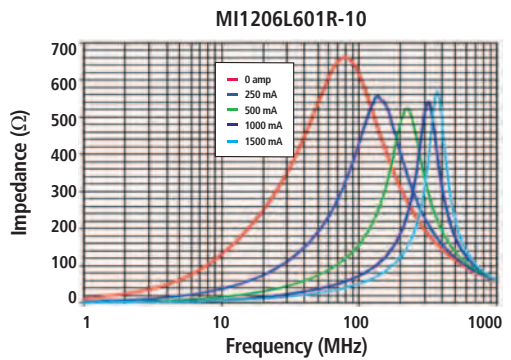
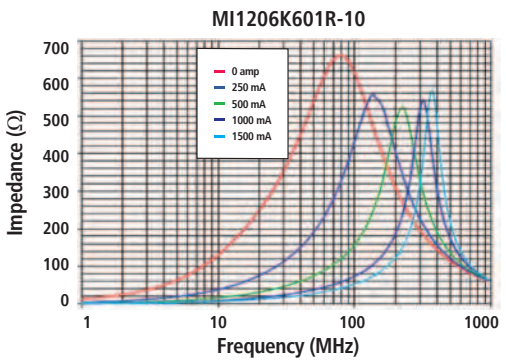
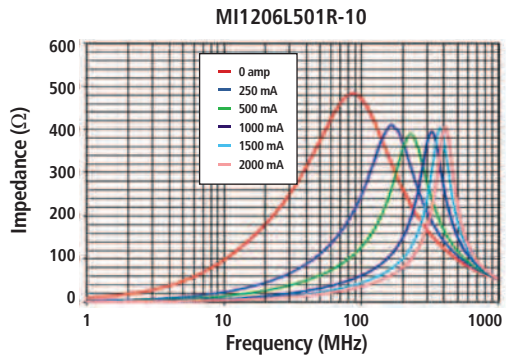
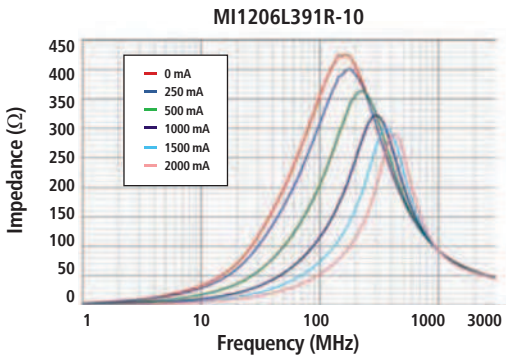
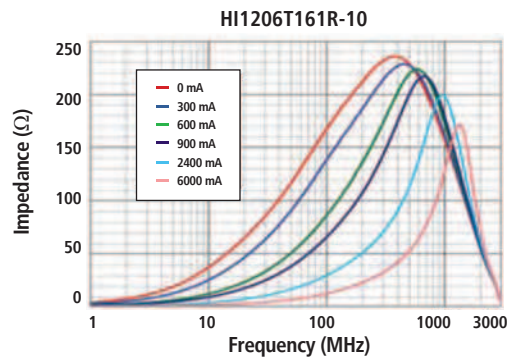
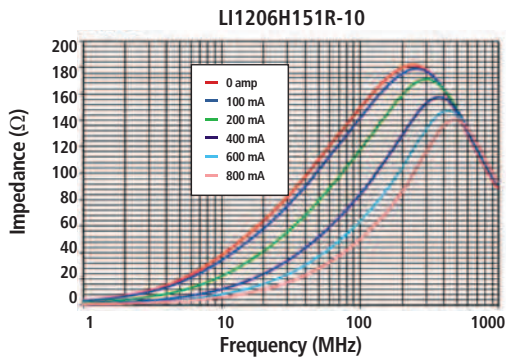
1206 Chip Bead Impedance Under DC Bias



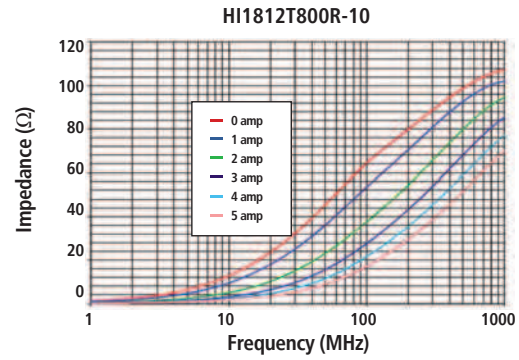
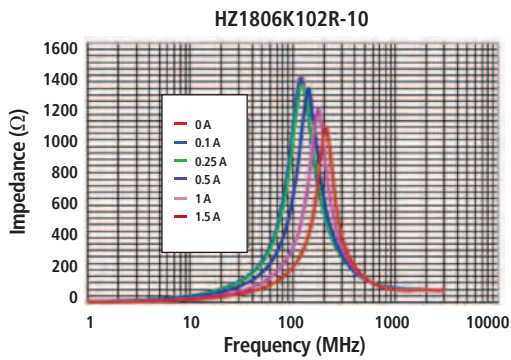
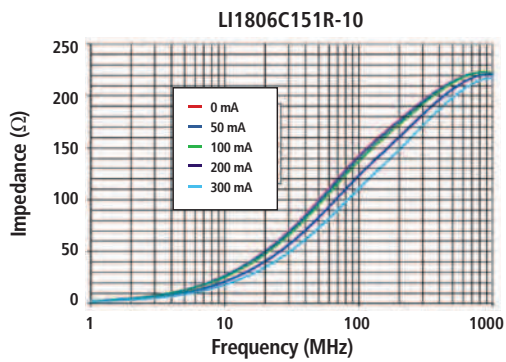
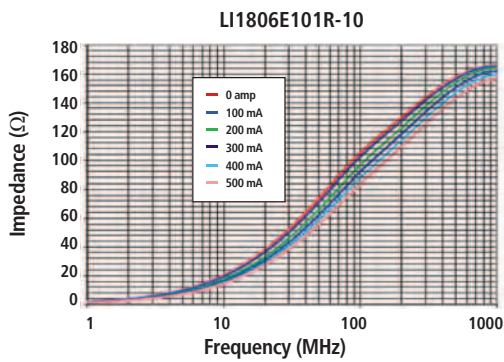
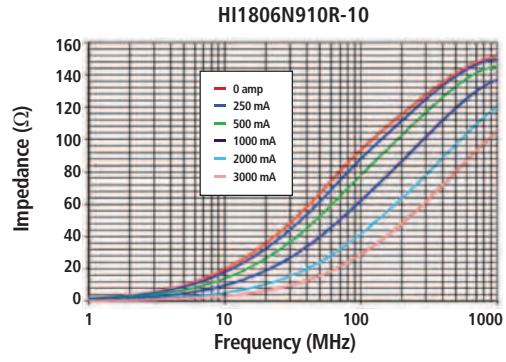
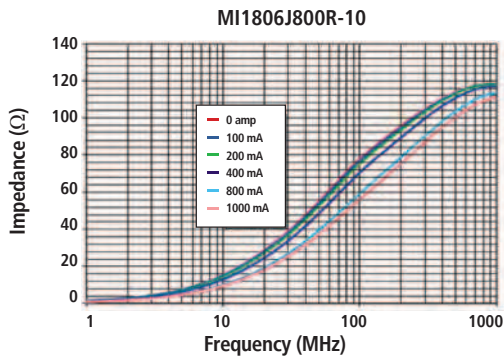
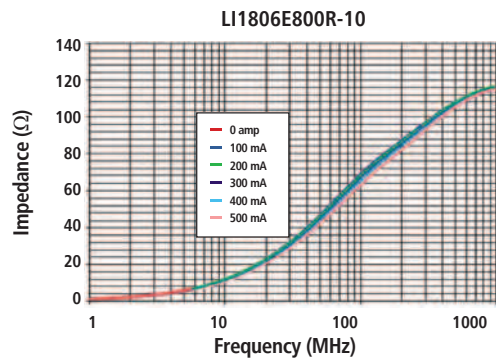
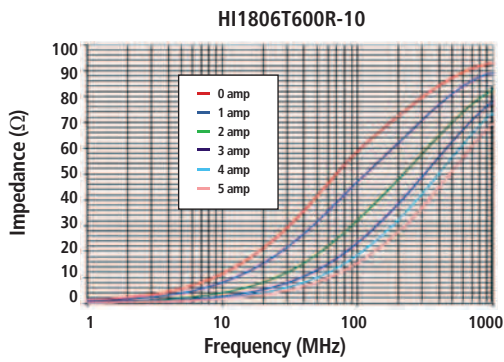
1206 Chip Bead Impedance Under DC Bias



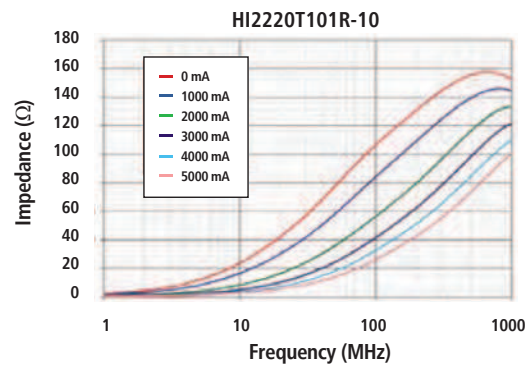
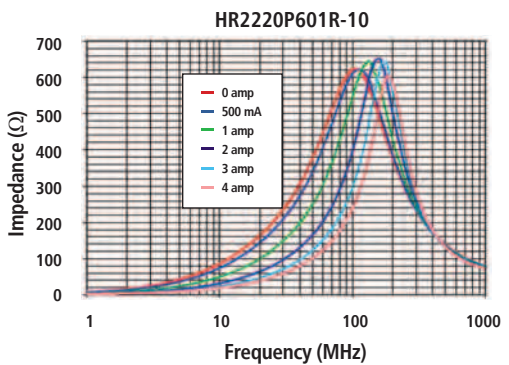
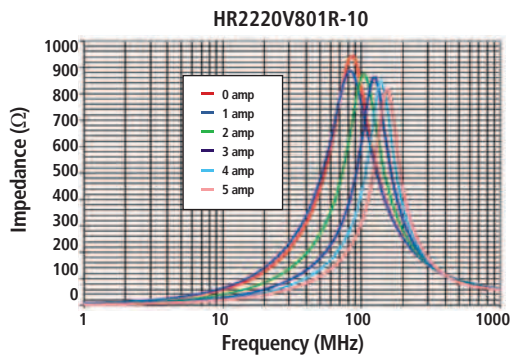
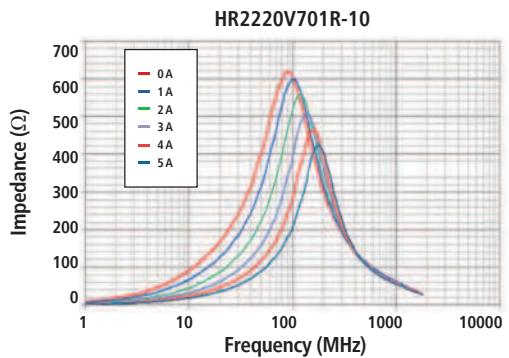
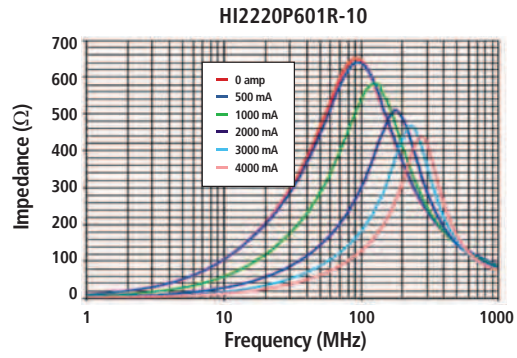
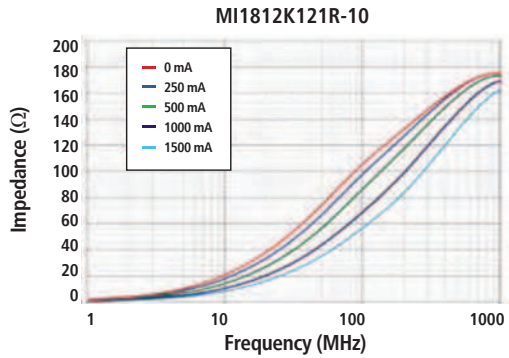
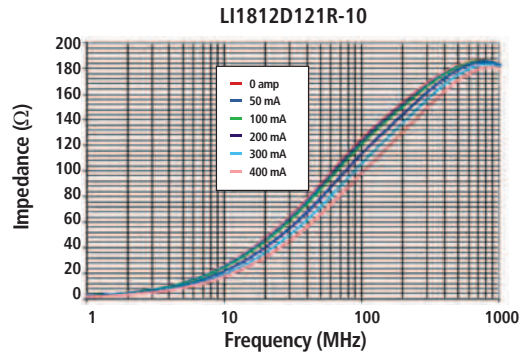
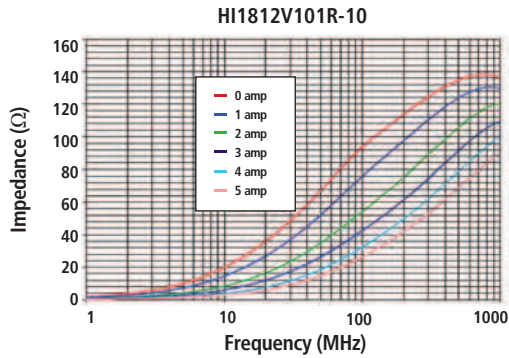
1206/1210/1612 Chip Bead Impedance Under DC Bias



1806/1812 Chip Bead Impedance Under DC Bias



1812/2220 Chip Bead Impedance Under DC Bias



2220 Chip Bead Impedance Under DC Bias

