

# Chip Beads

Fair-Rite offers a broad selection of chip beads used to suppress EMI in a wide variety of devices such as computers, cellular phones, digital communication equipment, televisions, pagers, and VCRs.

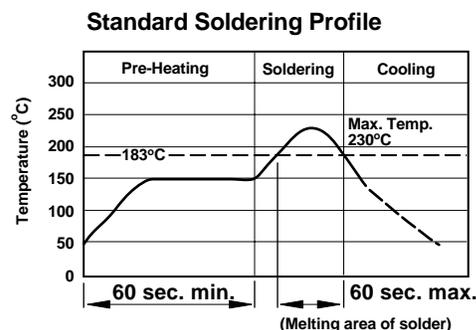
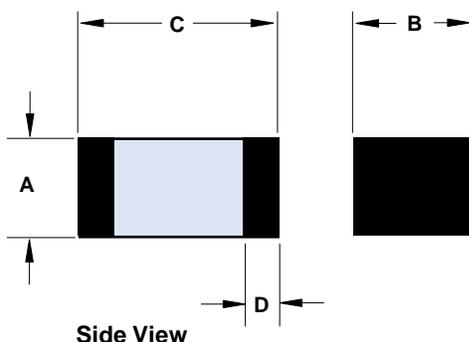
Low current, medium current, and high current chip beads are available. Fair-Rite's chip beads are controlled 100% for impedance and DCR. They are suitable for both wave and reflow solder processes.

Standard and high signal speed parts are available. Standard speed signal chip beads are designed for general noise suppression over a wide frequency range. The high speed signal chip beads offer low impedance at frequencies below 50 MHz and then the impedance increases rapidly to its peak at >100 MHz.

- The 0603 and 0805 beads are supplied 4000 pieces per 7" reel or 10000 pieces per 13" reel. The 1206 beads are supplied 3000 pieces per 7" reel or 10000 pieces per 13" reel. The 1806 beads are supplied 2000 pieces per 7" reel or 10000 pieces per 13" reel. The 1812 beads are supplied 1000 pieces per 7" reel or 5000 pieces per 13" reel.
- The tape width for the 0603, 0805, and 1206 beads is **8mm** with a component pitch of **4mm**. The tape width for the 1806 and 1812 beads is **12mm** with a component pitch of **8mm**.
- The contacts are tin/lead plated. Standard reflow soldering profile is shown below.
- Recommended storage and operating temperature is  $-55^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$ .
- For impedance vs. frequency curves and DC bias curves for these parts, please see Figures 1-61.
- For any chip bead requirement not listed, please contact our customer service group for availability and pricing.
- The Chip Bead Kit (part number 0199000018) is available for prototype evaluation. See page 92.

## Part Number System: Example 2512063017Y1

25	1206	301	7	Y	1
<b>Chip Bead Code</b>	<b>Package Size Code</b>	<b>Impedance Code</b>	<b>Packaging Code</b> 6= Bulk Packed 7= Taped and Reeled 7" Reel 8= Taped and Reeled 13" Reel	<b>Material Code</b> Y = Standard Signal Speed Z= High Signal Speed	<b>Current Code</b> 0 < 1.0A 1 $\geq$ 1.0A < 2.0A 3 $\geq$ 3.0A < 4.0A 6 $\geq$ 6.0A < 7.0A



# Chip Beads

## Low Current Chip Beads (<1 Amp)

Dimensions (Bold numbers are in millimeters, light numbers are in inches.)

Pkg. Size	Dimensions				Wt(g)	Signal Speed	Part Number	Z( $\Omega$ ) $\pm$ 25% @ 100 MHz	Max. DCR ohm	Max. Current mA	Z, R <sub>s</sub> , X <sub>L</sub> vs. Frequency Curve	DC Bias Curve
	A	B	C	D								
<b>0603</b>	<b>0.8<math>\pm</math>0.3</b> .031	<b>0.8<math>\pm</math>0.3</b> .031	<b>1.6<math>\pm</math>0.15</b> .063	<b>0.4<math>\pm</math>0.2</b> .016	<b>0.006</b>	Standard	<b>2506033007Y0</b>	30	0.1	200	Figure 1A	Figure 1B
							<b>2506036007Y0</b>	60	0.2	200	Figure 2A	Figure 2B
							<b>2506038007Y0</b>	80	0.2	150	Figure 3A	Figure 3B
							<b>2506039007Y0</b>	90	0.2	150	Figure 4A	Figure 4B
							<b>2506031017Y0</b>	100	0.2	150	Figure 5A	Figure 5B
							<b>2506031217Y0</b>	120	0.2	150	Figure 6A	Figure 6B
							<b>2506031517Y0</b>	150	0.3	150	Figure 7A	Figure 7B
							<b>2506033017Y0</b>	300	0.6	100	Figure 8A	Figure 8B
							<b>2506036017Y0</b>	600	0.8	100	Figure 9A	Figure 9B
						<b>2506031027Y0</b>	1000	1	100	Figure 10A	Figure 10B	
						High	<b>2506036007Z0</b>	60	0.5	200	Figure 11A	Figure 11B
							<b>2506031217Z0</b>	120	0.5	150	Figure 12A	Figure 12B
							<b>2506033017Z0</b>	300	0.85	100	Figure 13A	Figure 13B
<b>0805</b>	<b>0.9<math>\pm</math>0.2</b> .035	<b>1.25<math>\pm</math>0.2</b> .049	<b>2.0<math>\pm</math>0.2</b> .079	<b>0.45<math>\pm</math>0.35</b> .018	<b>0.01</b>	Standard	<b>2508051107Y0</b>	11	0.1	300	Figure 14A	Figure 14B
							<b>2508053007Y0</b>	30	0.2	300	Figure 15A	Figure 15B
							<b>2508055007Y0</b>	50	0.2	300	Figure 16A	Figure 16B
							<b>2508056007Y0</b>	60	0.2	300	Figure 17A	Figure 17B
							<b>2508059007Y0</b>	90	0.3	300	Figure 18A	Figure 18B
							<b>2508051017Y0</b>	100	0.3	300	Figure 19A	Figure 19B
							<b>2508051217Y0</b>	120	0.3	300	Figure 20A	Figure 20B
							<b>2508051817Y0</b>	180	0.3	300	Figure 21A	Figure 21B
							<b>2508053017Y0</b>	300	0.4	300	Figure 22A	Figure 22B
							<b>2508056017Y0</b>	600	0.6	200	Figure 23A	Figure 23B
							<b>2508051027Y0</b>	1000	0.8	100	Figure 24A	Figure 24B
						<b>2508051527Y0</b>	1500	1	100	Figure 25A	Figure 25B	
						High	<b>2508056007Z0</b>	60	0.3	300	Figure 26A	Figure 26B
							<b>2508051217Z0</b>	120	0.3	300	Figure 27A	Figure 27B
<b>2508053017Z0</b>	300	0.55	100	Figure 28A	Figure 28B							
<b>1206</b>	<b>1.1<math>\pm</math>0.2</b> .043	<b>1.6<math>\pm</math>0.2</b> .063	<b>3.2<math>\pm</math>0.2</b> .126	<b>0.55<math>\pm</math>0.45</b> .022	<b>0.03</b>	Standard	<b>2512063007Y0</b>	30	0.1	500	Figure 29A	Figure 29B
							<b>2512065007Y0</b>	50	0.2	400	Figure 30A	Figure 30B
							<b>2512066007Y0</b>	60	0.2	400	Figure 31A	Figure 31B
							<b>2512067007Y0</b>	70	0.2	400	Figure 32A	Figure 32B
							<b>2512068007Y0</b>	80	0.2	400	Figure 33A	Figure 33B
							<b>2512069007Y0</b>	90	0.2	300	Figure 34A	Figure 34B
							<b>2512061017Y0</b>	100	0.2	300	Figure 35A	Figure 35B
							<b>2512061217Y0</b>	120	0.2	300	Figure 36A	Figure 36B
							<b>2512063017Y0</b>	300	0.3	200	Figure 37A	Figure 37B
							<b>2512066017Y0</b>	600	0.6	200	Figure 38A	Figure 38B
							<b>2512061027Y0</b>	1000	0.8	100	Figure 39A	Figure 39B
							<b>2512061527Y0</b>	1500@50 MHz	1	100	Figure 40A	Figure 40B
<b>1806</b>	<b>1.6<math>\pm</math>0.2</b> .063	<b>1.6<math>\pm</math>0.2</b> .063	<b>4.5<math>\pm</math>0.2</b> .177	<b>0.55<math>\pm</math>0.45</b> .022	<b>0.06</b>	Standard	<b>2518066007Y0</b>	60	0.2	500	Figure 41A	Figure 41B
							<b>2518067007Y0</b>	70	0.2	500	Figure 42A	Figure 42B
							<b>2518068007Y0</b>	80	0.2	500	Figure 43A	Figure 43B
							<b>2518061017Y0</b>	100	0.3	400	Figure 44A	Figure 44B
							<b>2518061517Y0</b>	150	0.3	400	Figure 45A	Figure 45B
							<b>2518063017Y0</b>	300	0.3	400	Figure 46A	Figure 46B

\* Bold part numbers designate preferred parts.

# Chip Beads

## Medium Current Chip Beads (1-3 Amp)

Dimensions (Bold numbers are in millimeters, light numbers are in inches.)

Pkg. Size	Dimensions				Wt(g)	Signal Speed	Part Number*	Z( $\Omega$ ) $\pm$ 25% @ 100 MHz	Max. DCR ohm	Max. Current mA	Z, R <sub>s</sub> , X <sub>L</sub> vs. Frequency Curve	DC Bias Curve
	A	B	C	D								
<b>0603</b>	<b>0.8<math>\pm</math>0.3</b> .031	<b>0.8<math>\pm</math>0.3</b> .031	<b>1.6<math>\pm</math>0.15</b> .063	<b>0.4<math>\pm</math>0.2</b> .016	<b>0.006</b>	Standard	<b>2506033007Y1</b>	30	0.1	1000	Figure 47A	Figure 47B
<b>0805</b>	<b>0.9<math>\pm</math>0.2</b> .035	<b>1.25<math>\pm</math>0.2</b> .049	<b>2.0<math>\pm</math>0.2</b> .079	<b>0.55<math>\pm</math>0.45</b> .022	<b>0.01</b>	Standard	<b>2508053007Y3</b>	30	0.04	3000	Figure 48A	Figure 48B
<b>1206</b>	<b>1.1<math>\pm</math>0.2</b> .043	<b>1.6<math>\pm</math>0.2</b> .063	<b>3.2<math>\pm</math>0.2</b> .126	<b>0.55<math>\pm</math>0.45</b> .022	<b>0.03</b>	Standard	<b>2512061907Y1</b>	19	0.04	1500	Figure 49A	Figure 49B
							<b>2512063007Y3</b>	30	0.04	3000	Figure 50A	Figure 50B
							<b>2512065007Y3</b>	50	0.05	3000	Figure 51A	Figure 51B
							<b>2512067007Y3</b>	70	0.05	3000	Figure 52A	Figure 52B
<b>1806</b>	<b>1.6<math>\pm</math>0.2</b> .063	<b>1.6<math>\pm</math>0.2</b> .063	<b>4.5<math>\pm</math>0.2</b> .177	<b>0.55<math>\pm</math>0.45</b> .022	<b>0.06</b>	Standard	<b>2518066007Y3</b>	60	0.04	3000	Figure 54A	Figure 54B
							<b>2518068007Y1</b>	80	0.1	1500	Figure 55A	Figure 55B
<b>1812</b>	<b>1.6<math>\pm</math>0.2</b> .063	<b>3.2<math>\pm</math>0.2</b> .126	<b>4.5<math>\pm</math>0.2</b> .177	<b>0.55<math>\pm</math>0.45</b> .022	<b>0.09</b>	Standard	<b>2518127007Y3</b>	70	0.04	3000	Figure 56A	Figure 56B
							<b>2518121217Y3</b>	120	0.04	3000	Figure 57A	Figure 57B

## High Current Chip Beads (>3 Amp)

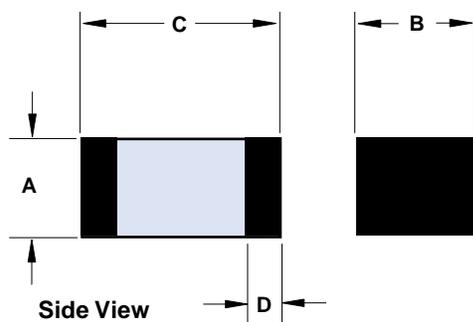
Dimensions (Bold numbers are in millimeters, light numbers are in inches.)

Pkg. Size	Dimensions				Wt(g)	Signal Speed	Part Number*	Z( $\Omega$ ) $\pm$ 25% @ 100 MHz	Max. DCR ohm	Max. Current mA	Z, R <sub>s</sub> , X <sub>L</sub> vs. Frequency Curve	DC Bias Curve
	A	B	C	D								
<b>1206</b>	<b>1.1<math>\pm</math>0.2</b> .043	<b>1.6<math>\pm</math>0.2</b> .063	<b>3.2<math>\pm</math>0.2</b> .126	<b>0.6<math>\pm</math>0.2</b> .024	<b>0.03</b>	Standard	<b>2512065007Y6</b>	50	0.02	6000	Figure 58A	Figure 58B
<b>1806</b>	<b>1.6<math>\pm</math>0.2</b> .063	<b>1.6<math>\pm</math>0.2</b> .063	<b>4.5<math>\pm</math>0.2</b> .177	<b>0.6<math>\pm</math>0.2</b> .024	<b>0.06</b>	Standard	<b>2518065007Y6</b>	50	0.01	6000	Figure 59A	Figure 59B
							<b>2518068007Y6</b>	80	0.02	6000	Figure 60A	Figure 60B
<b>1812</b>	<b>1.6<math>\pm</math>0.2</b> .063	<b>3.2<math>\pm</math>0.2</b> .126	<b>4.5<math>\pm</math>0.2</b> .177	<b>0.55<math>\pm</math>0.45</b> .022	<b>0.09</b>	Standard	<b>2518121217Y6</b>	120	0.02	6000	Figure 61A	Figure 61B

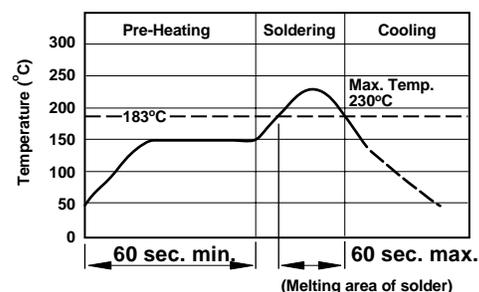
\* Bold part numbers designate preferred parts.

## Part Number System: Example 2512063017Y1

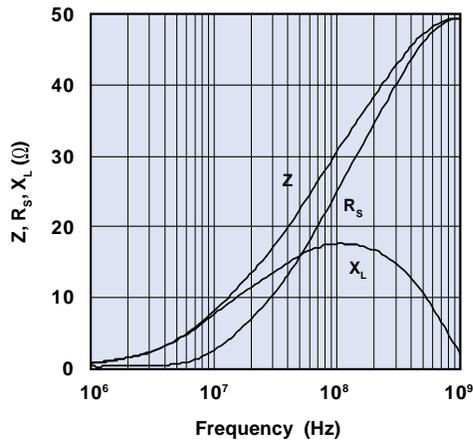
25	1206	301	7	Y	1
Chip Bead Code	Package Size Code	Impedance Code	Packaging Code	Material Code	Current Code
			6= Bulk Packed 7= Taped and Reeled 7" Reel 8= Taped and Reeled 13" Reel	Y = Standard Signal Speed Z = High Signal Speed	0 < 1.0A 1 $\geq$ 1.0A < 2.0A 3 $\geq$ 3.0A < 4.0A 6 $\geq$ 6.0A < 7.0A



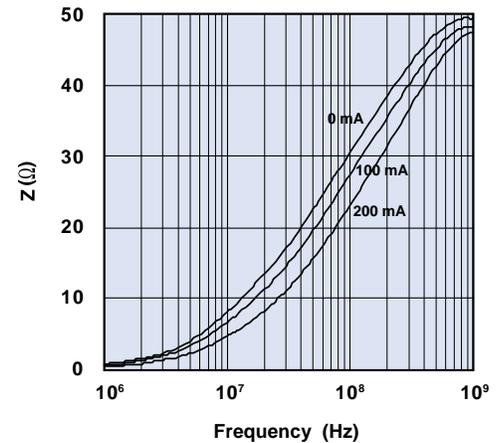
## Standard Soldering Profile



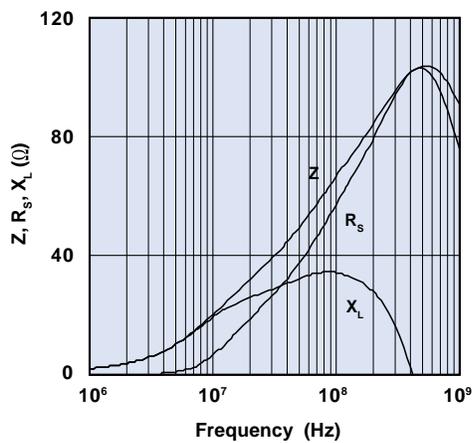
# Chip Beads



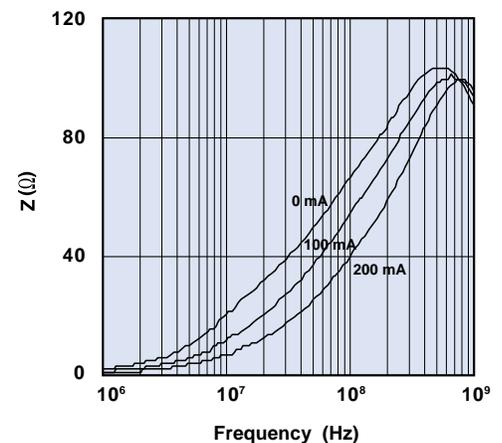
**Figure 1A** Impedance, reactance, and resistance vs. frequency for chip bead 2506033007Y0.



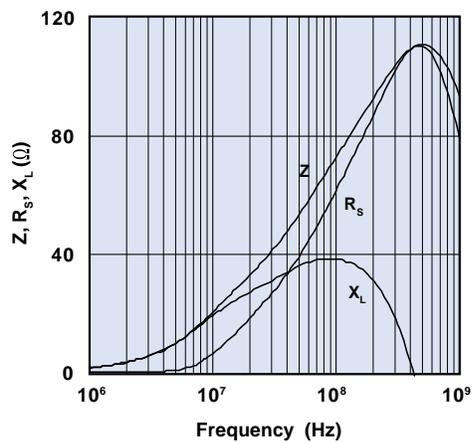
**Figure 1B** Impedance vs. frequency with dc bias as parameter for chip bead 2506033007Y0.



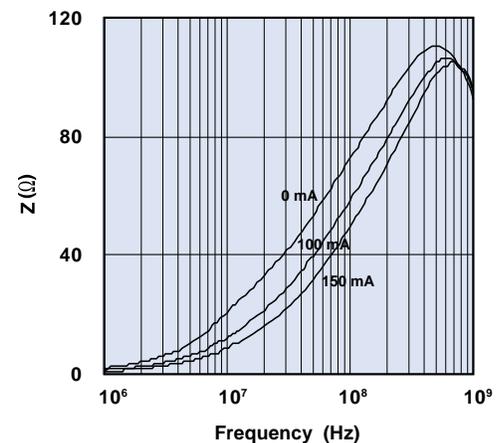
**Figure 2A** Impedance, reactance, and resistance vs. frequency for chip bead 2506036007Y0.



**Figure 2B** Impedance vs. frequency with dc bias as parameter for chip bead 2506036007Y0.

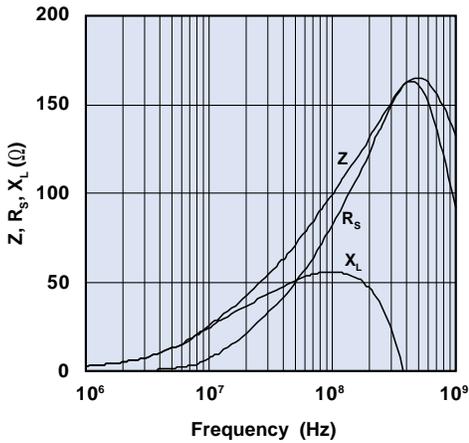


**Figure 3A** Impedance, reactance, and resistance vs. frequency for chip bead 2506038007Y0.

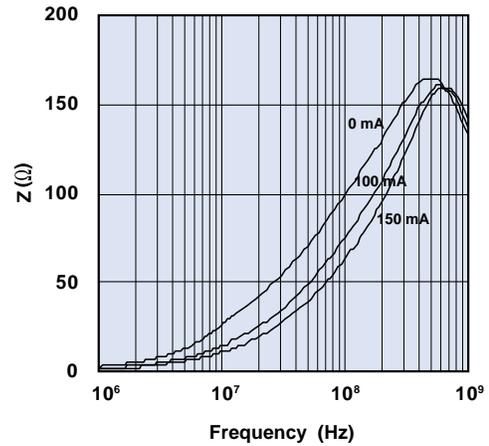


**Figure 3B** Impedance vs. frequency with dc bias as parameter for chip bead 2506038007Y0.

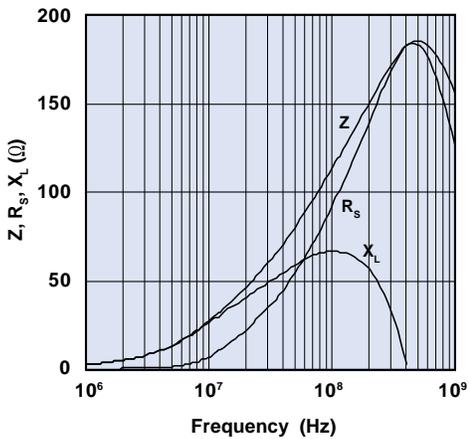
# Chip Beads



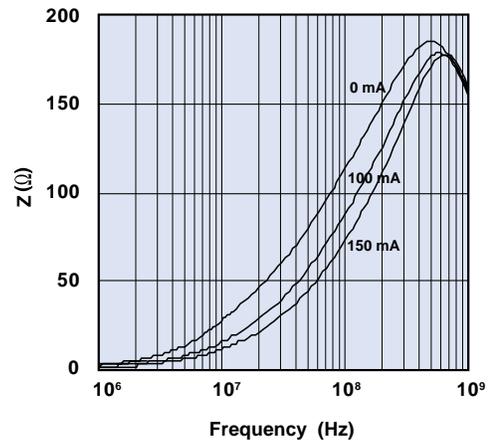
**Figure 4A** Impedance, reactance, and resistance vs. frequency for chip bead 2506039007Y0.



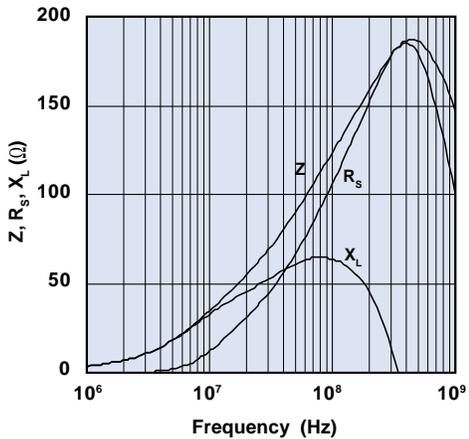
**Figure 4B** Impedance vs. frequency with dc bias as parameter for chip bead 2506039007Y0.



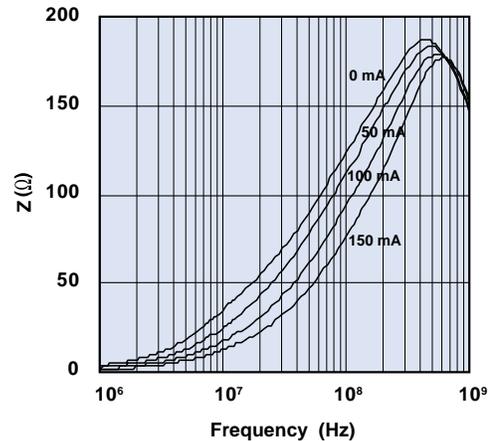
**Figure 5A** Impedance, reactance, and resistance vs. frequency for chip bead 2506031017Y0.



**Figure 5B** Impedance vs. frequency with dc bias as parameter for chip bead 2506031017Y0.

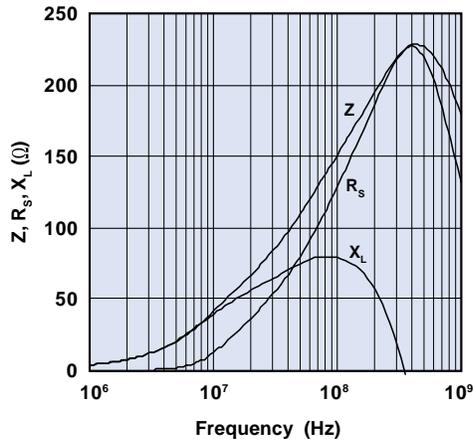


**Figure 6A** Impedance, reactance, and resistance vs. frequency for chip bead 2506031217Y0.

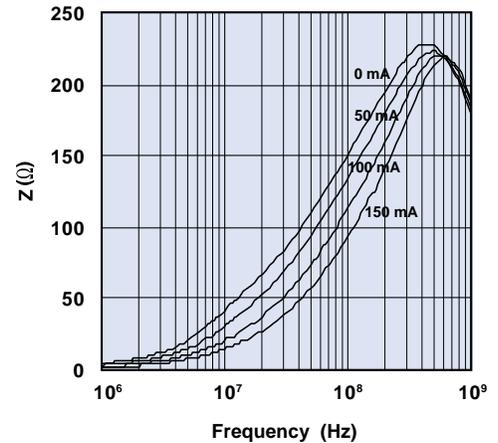


**Figure 6B** Impedance vs. frequency with dc bias as parameter for chip bead 2506031217Y0.

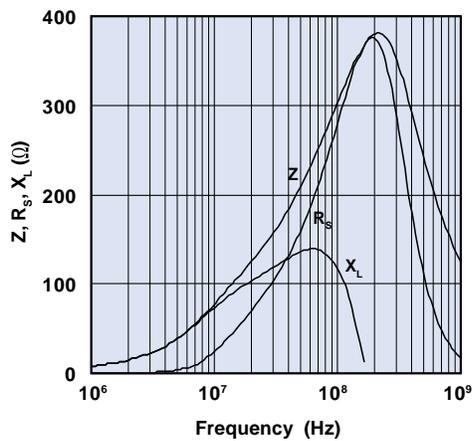
# Chip Beads



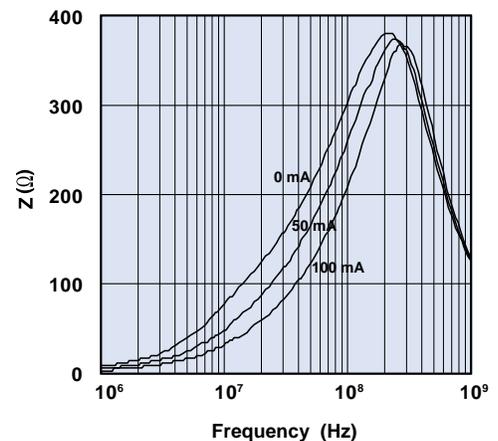
**Figure 7A** Impedance, reactance, and resistance vs. frequency for chip bead 2506031517Y0.



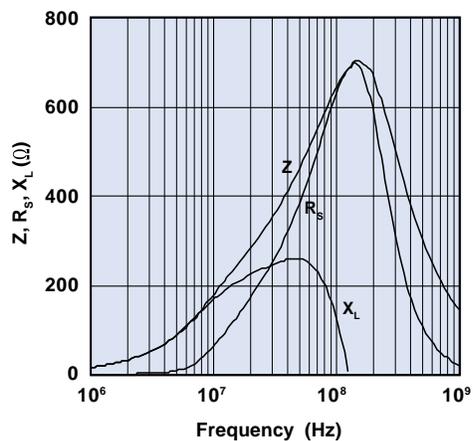
**Figure 7B** Impedance vs. frequency with dc bias as parameter for chip bead 2506031517Y0.



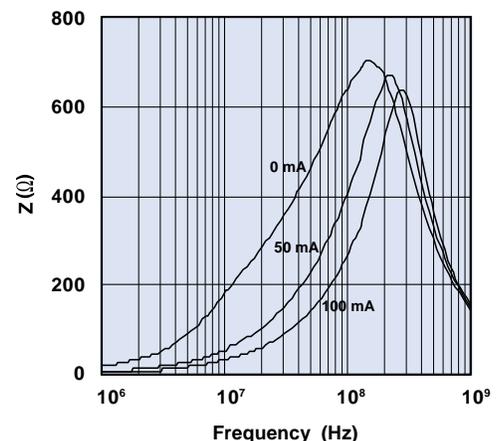
**Figure 8A** Impedance, reactance, and resistance vs. frequency for chip bead 2506033017Y0.



**Figure 8B** Impedance vs. frequency with dc bias as parameter for chip bead 2506033017Y0.

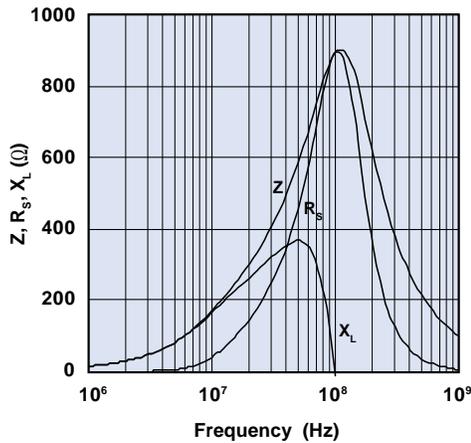


**Figure 9A** Impedance, reactance, and resistance vs. frequency for chip bead 2506036017Y0.

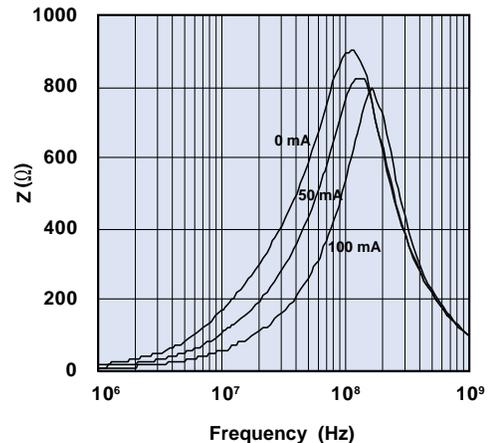


**Figure 9B** Impedance vs. frequency with dc bias as parameter for chip bead 2506036017Y0.

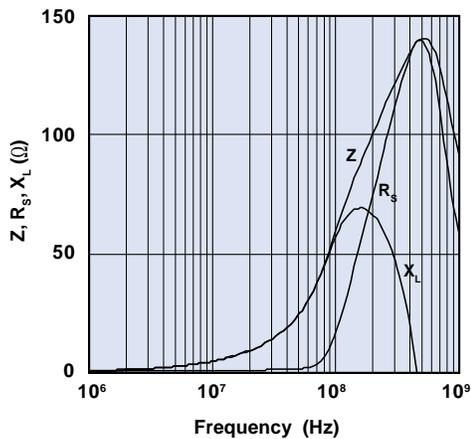
# Chip Beads



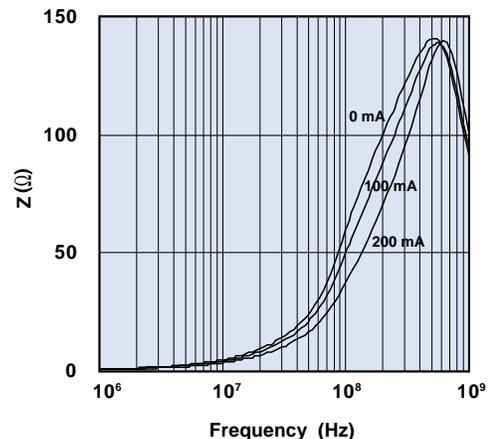
**Figure 10A** Impedance, reactance, and resistance vs. frequency for chip bead 2506031027Y0.



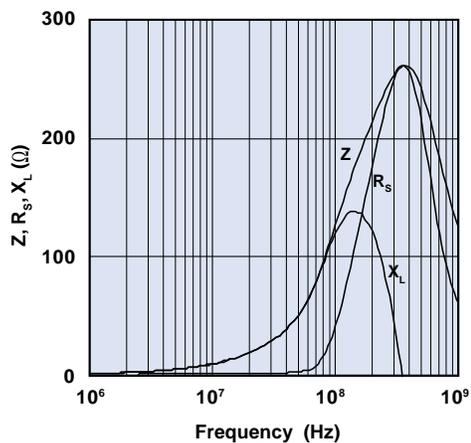
**Figure 10B** Impedance vs. frequency with dc bias as parameter for chip bead 2506031027Y0.



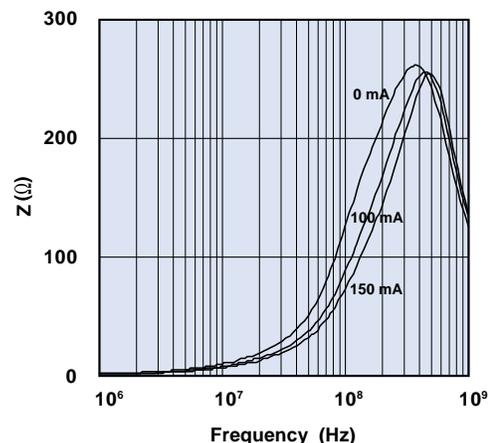
**Figure 11A** Impedance, reactance, and resistance vs. frequency for chip bead 2506036007Z0.



**Figure 11B** Impedance vs. frequency with dc bias as parameter for chip bead 2506036007Z0.



**Figure 12A** Impedance, reactance, and resistance vs. frequency for chip bead 2506031217Z0.



**Figure 12B** Impedance vs. frequency with dc bias as parameter for chip bead 2506031217Z0.

# Chip Beads

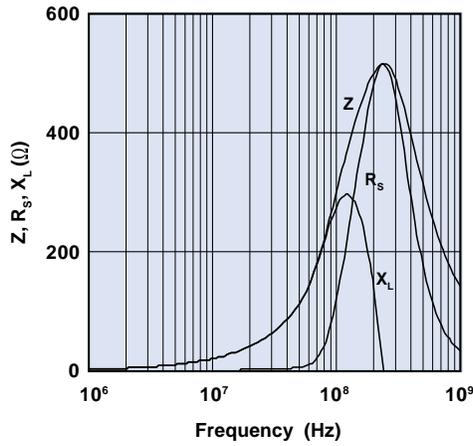


Figure 13A Impedance, reactance, and resistance vs. frequency for chip bead 2506033017Z0.

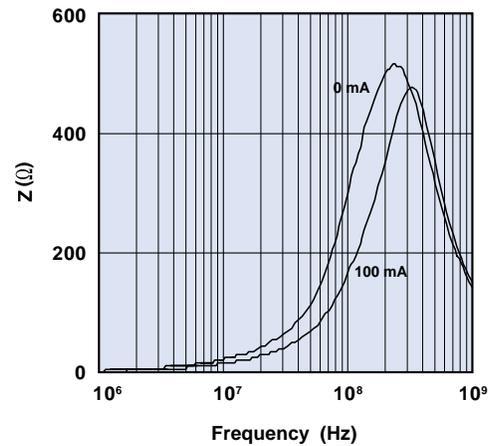


Figure 13B Impedance vs. frequency with dc bias as parameter for chip bead 2506033017Z0.

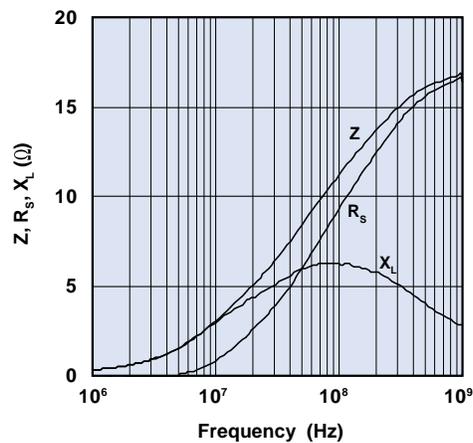


Figure 14A Impedance, reactance, and resistance vs. frequency for chip bead 2508051107Y0.

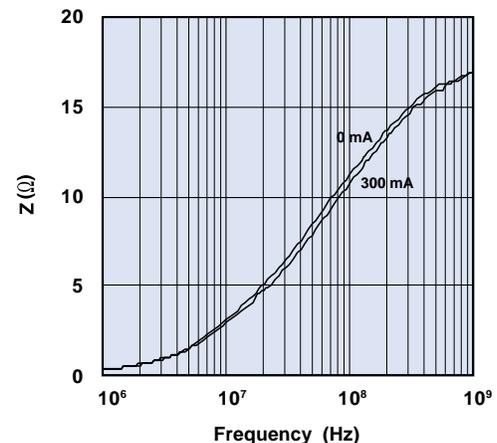


Figure 14B Impedance vs. frequency with dc bias as parameter for chip bead 2508051107Y0.

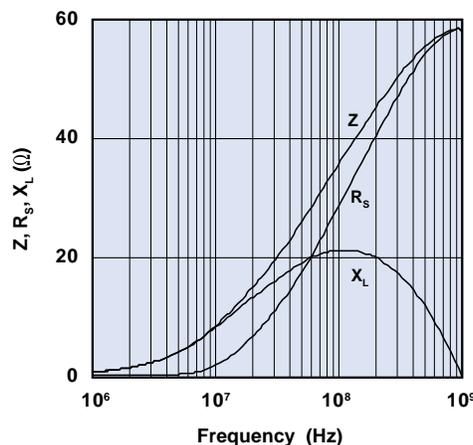


Figure 15A Impedance, reactance, and resistance vs. frequency for chip bead 2508053007Y0.

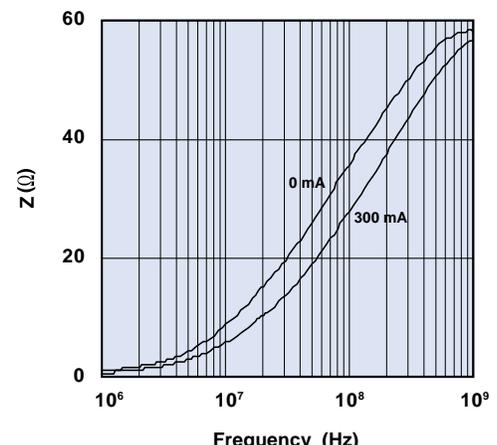
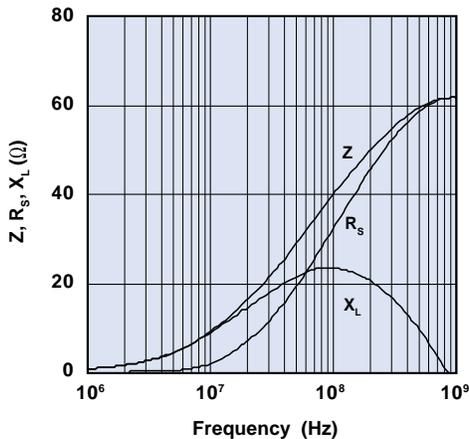
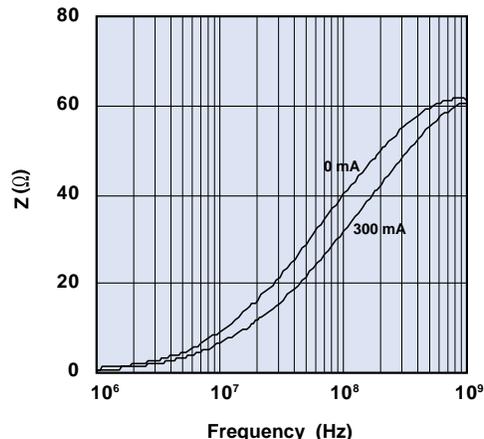


Figure 15B Impedance vs. frequency with dc bias as parameter for chip bead 2508053007Y0.

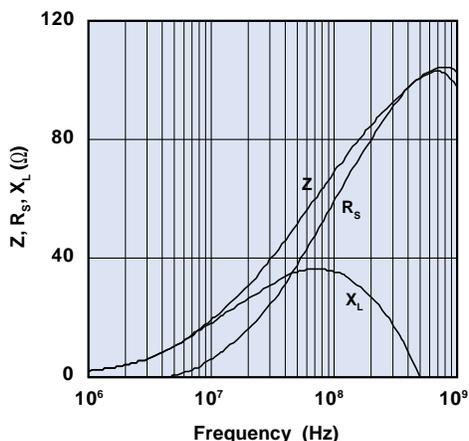
# Chip Beads



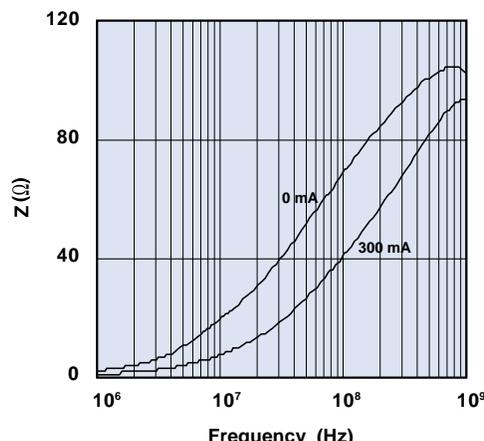
**Figure 16A** Impedance, reactance, and resistance vs. frequency for chip bead 2508055007Y0.



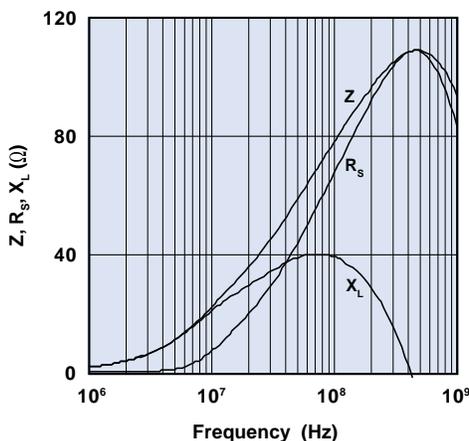
**Figure 16B** Impedance vs. frequency with dc bias as parameter for chip bead 2508055007Y0.



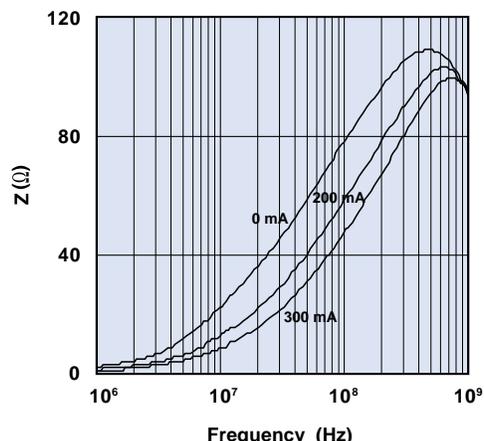
**Figure 17A** Impedance, reactance, and resistance vs. frequency for chip bead 2508056007Y0.



**Figure 17B** Impedance vs. frequency with dc bias as parameter for chip bead 2508056007Y0.

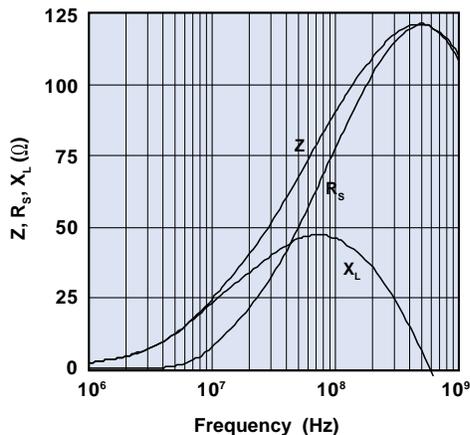


**Figure 18A** Impedance, reactance, and resistance vs. frequency for chip bead 2508059007Y0.

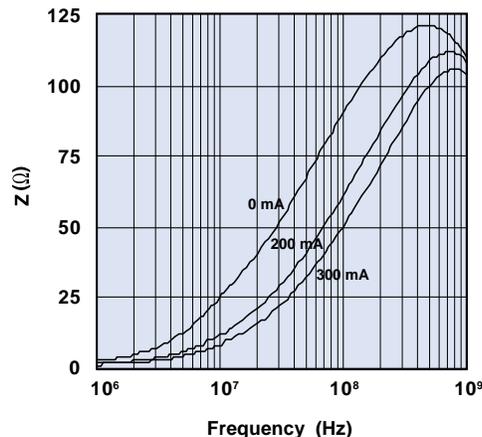


**Figure 18B** Impedance vs. frequency with dc bias as parameter for chip bead 2508059007Y0.

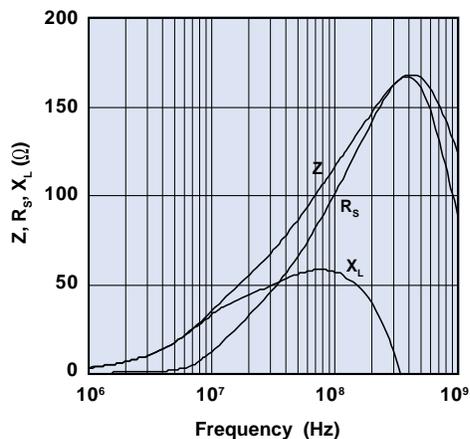
# Chip Beads



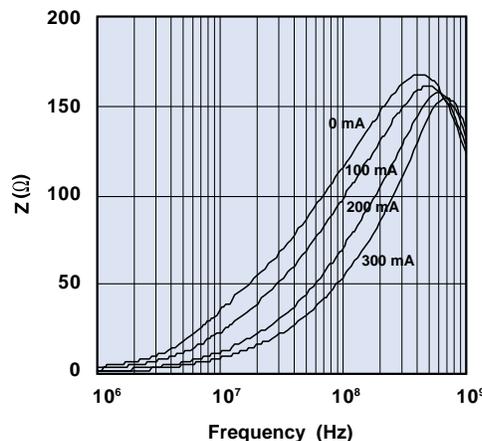
**Figure 19A** Impedance, reactance, and resistance vs. frequency for chip bead 2508051017Y0.



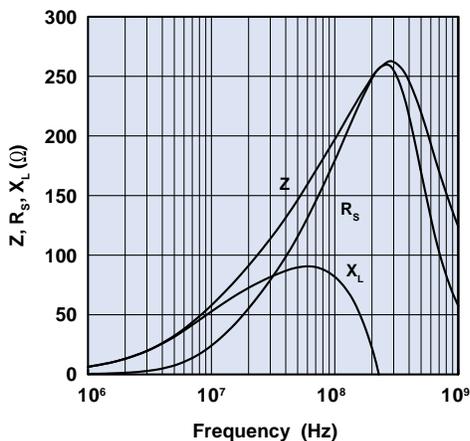
**Figure 19B** Impedance vs. frequency with dc bias as parameter for chip bead 2508051017Y0.



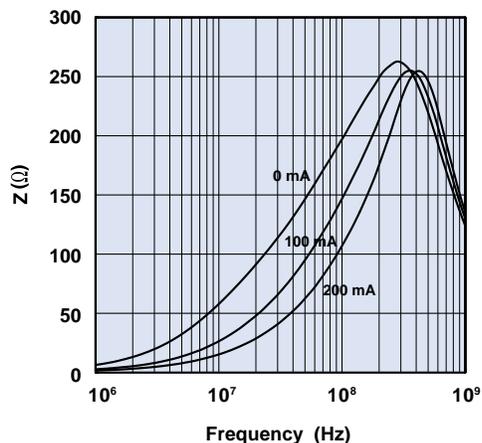
**Figure 20A** Impedance, reactance, and resistance vs. frequency for chip bead 2508051217Y0.



**Figure 20B** Impedance vs. frequency with dc bias as parameter for chip bead 2508051217Y0.

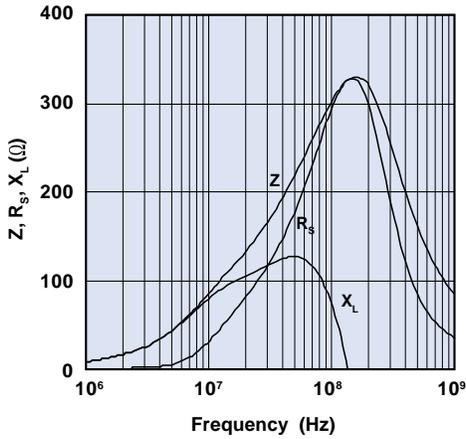


**Figure 21A** Impedance, reactance, and resistance vs. frequency for chip bead 2508051817Y0.

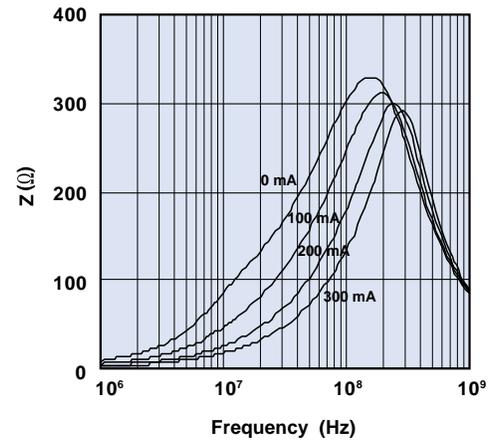


**Figure 21B** Impedance vs. frequency with dc bias as parameter for chip bead 2508051817Y0.

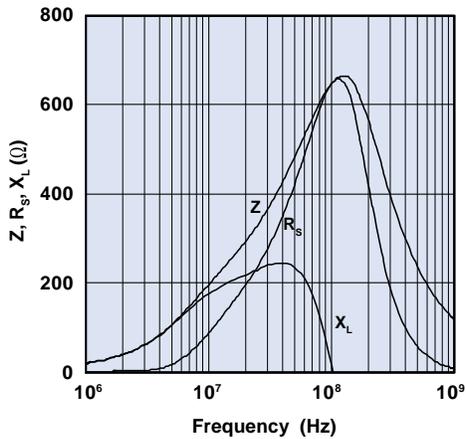
# Chip Beads



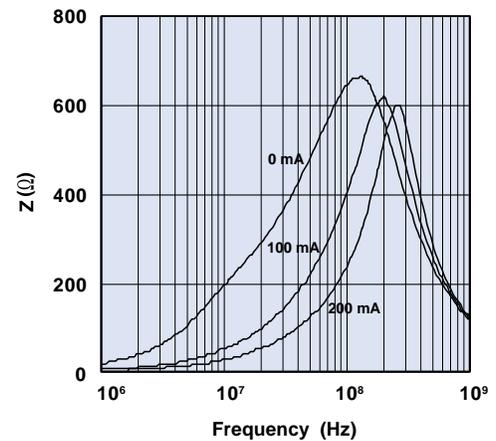
**Figure 22A** Impedance, reactance, and resistance vs. frequency for chip bead 2508053017Y0.



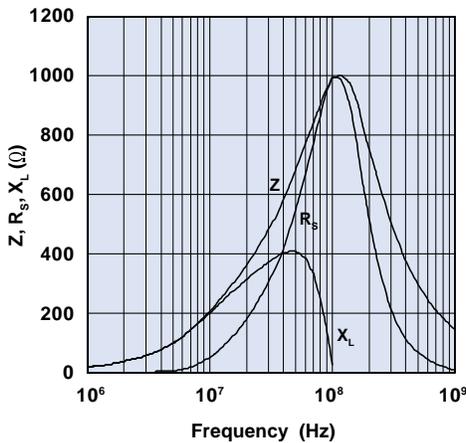
**Figure 22B** Impedance vs. frequency with dc bias as parameter for chip bead 2508053017Y0.



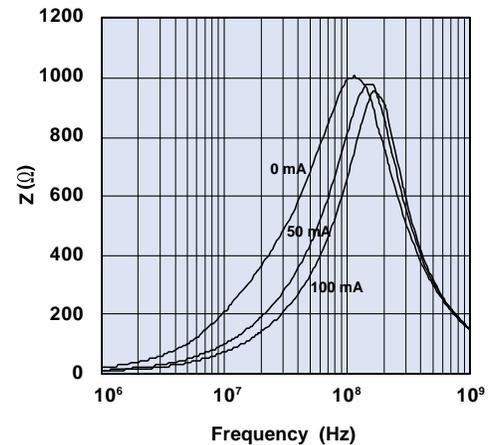
**Figure 23A** Impedance, reactance, and resistance vs. frequency for chip bead 2508056017Y0.



**Figure 23B** Impedance vs. frequency with dc bias as parameter for chip bead 2508056017Y0.

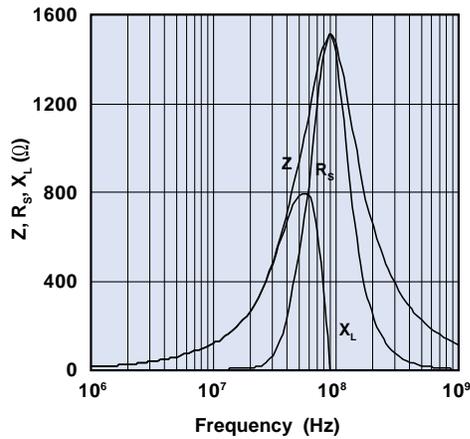


**Figure 24A** Impedance, reactance, and resistance vs. frequency for chip bead 2508051027Y0.

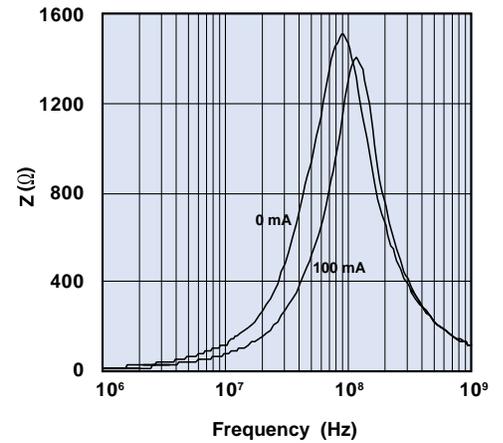


**Figure 24B** Impedance vs. frequency with dc bias as parameter for chip bead 2508051027Y0.

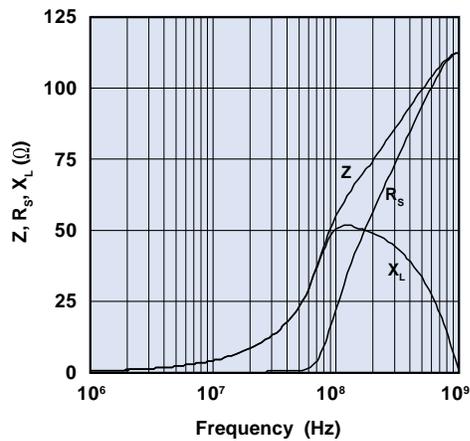
# Chip Beads



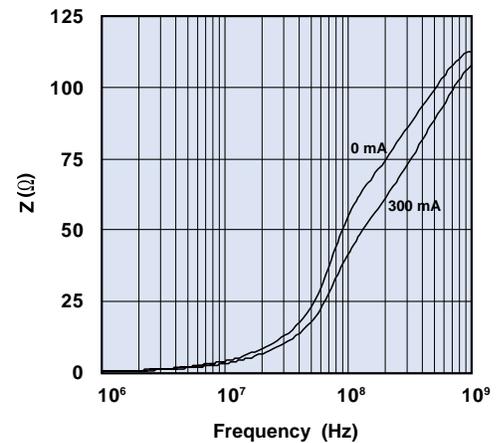
**Figure 25A** Impedance, reactance, and resistance vs. frequency for chip bead 2508051527Y0.



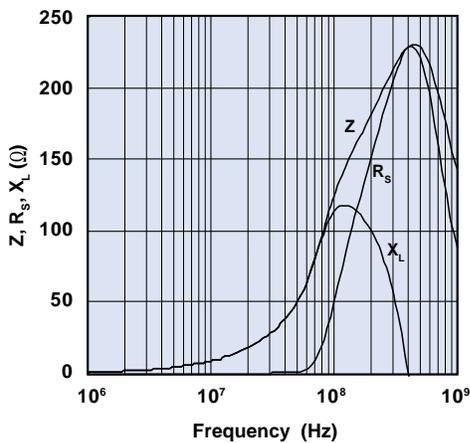
**Figure 25B** Impedance vs. frequency with dc bias as parameter for chip bead 2508051527Y0.



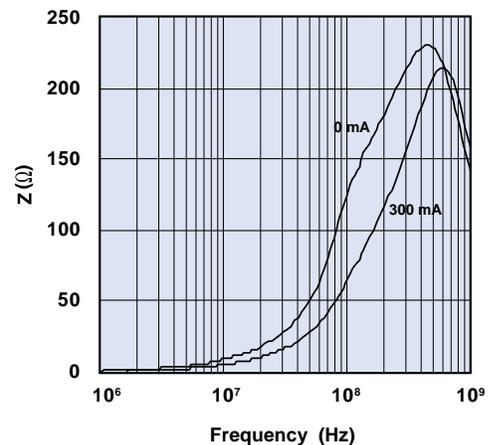
**Figure 26A** Impedance, reactance, and resistance vs. frequency for chip bead 2508056007Z0.



**Figure 26B** Impedance vs. frequency with dc bias as parameter for chip bead 2508056007Z0.

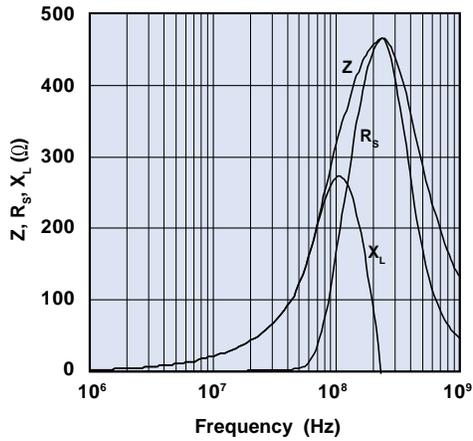


**Figure 27A** Impedance, reactance, and resistance vs. frequency for chip bead 2508051217Z0.

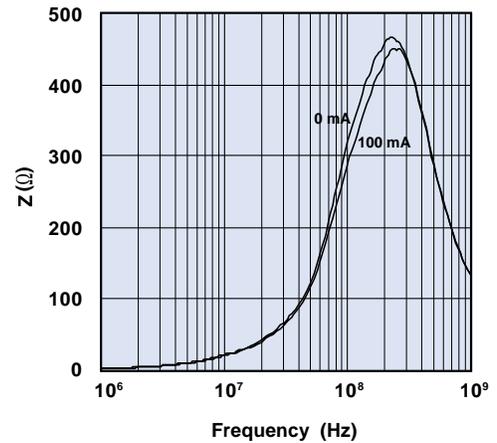


**Figure 27B** Impedance vs. frequency with dc bias as parameter for chip bead 2508051217Z0.

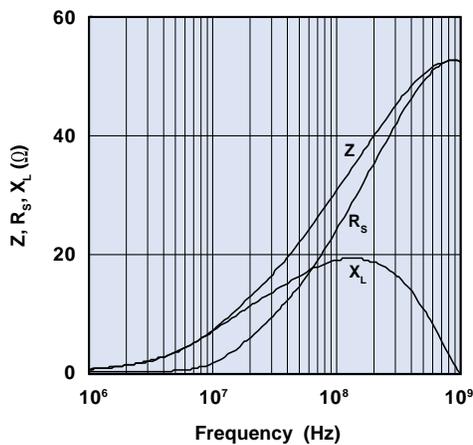
# Chip Beads



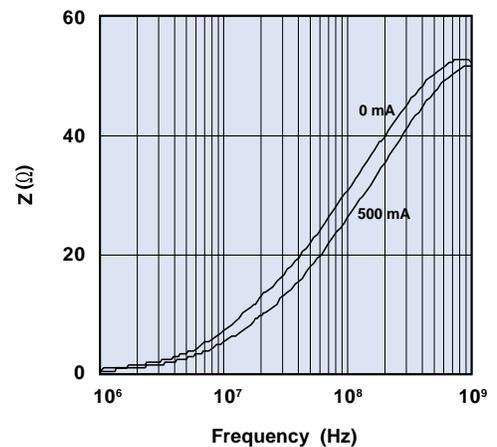
**Figure 28A** Impedance, reactance, and resistance vs. frequency for chip bead 2508053017Z0.



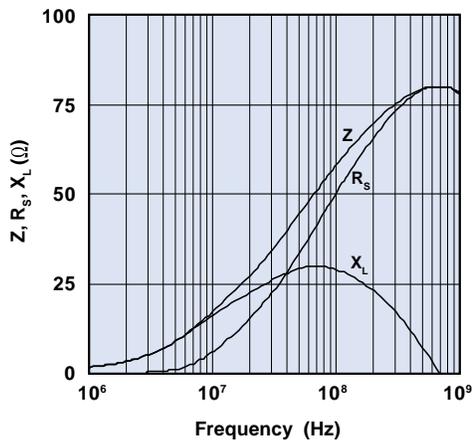
**Figure 28B** Impedance vs. frequency with dc bias as parameter for chip bead 2508053017Z0.



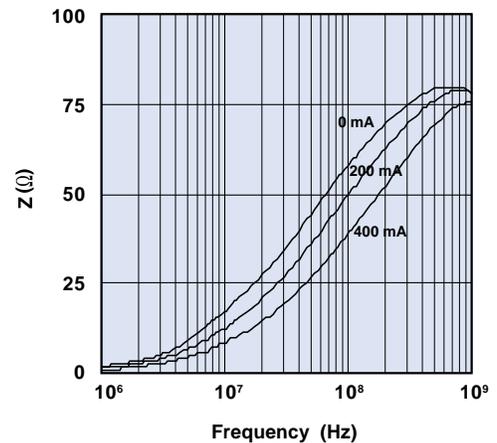
**Figure 29A** Impedance, reactance, and resistance vs. frequency for chip bead 2512063007Y0.



**Figure 29B** Impedance vs. frequency with dc bias as parameter for chip bead 2512063007Y0.

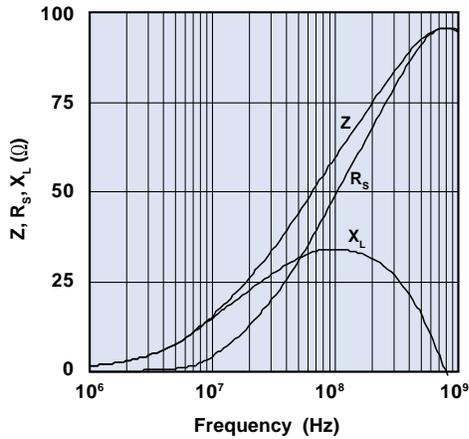


**Figure 30A** Impedance, reactance, and resistance vs. frequency for chip bead 2512065007Y0.

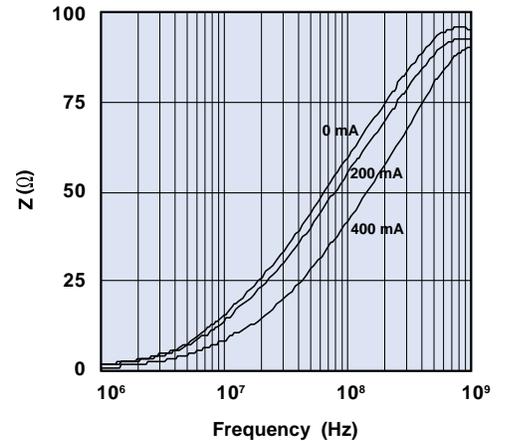


**Figure 30B** Impedance vs. frequency with dc bias as parameter for chip bead 2512065007Y0.

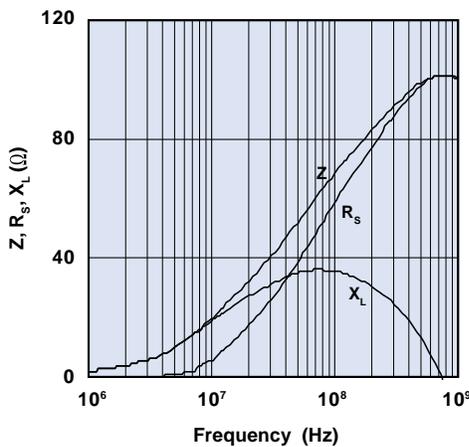
# Chip Beads



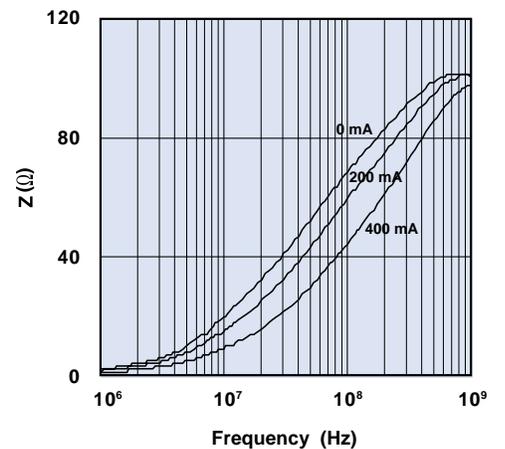
**Figure 31A** Impedance, reactance, and resistance vs. frequency for chip bead 2512066007Y0.



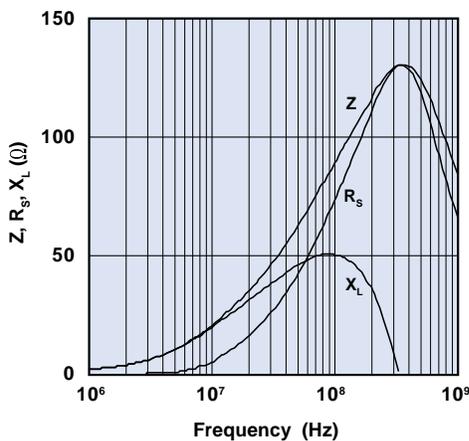
**Figure 31B** Impedance vs. frequency with dc bias as parameter for chip bead 2512066007Y0.



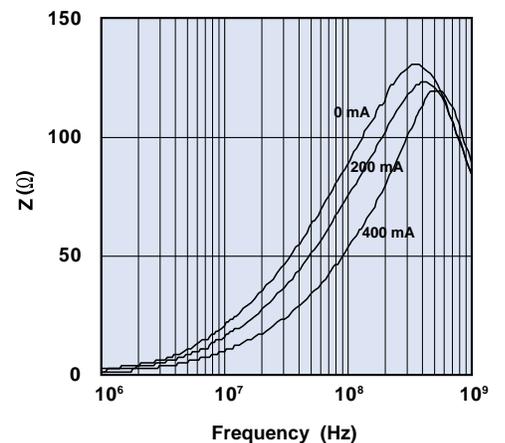
**Figure 32A** Impedance, reactance, and resistance vs. frequency for chip bead 2512067007Y0.



**Figure 32B** Impedance vs. frequency with dc bias as parameter for chip bead 2512067007Y0.

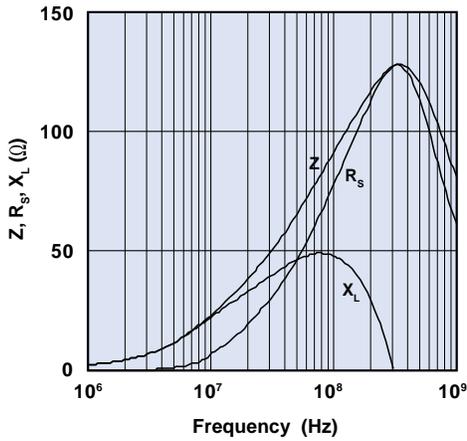


**Figure 33A** Impedance, reactance, and resistance vs. frequency for chip bead 2512068007Y0.

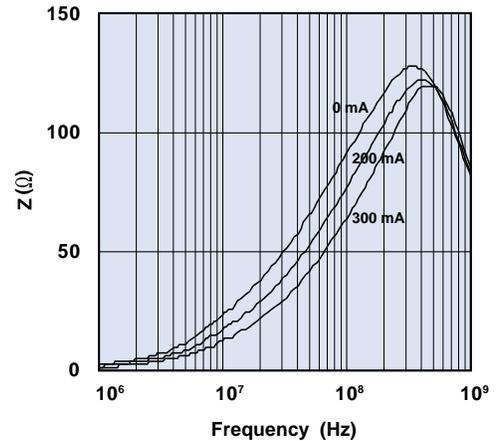


**Figure 33B** Impedance vs. frequency with dc bias as parameter for chip bead 2512068007Y0.

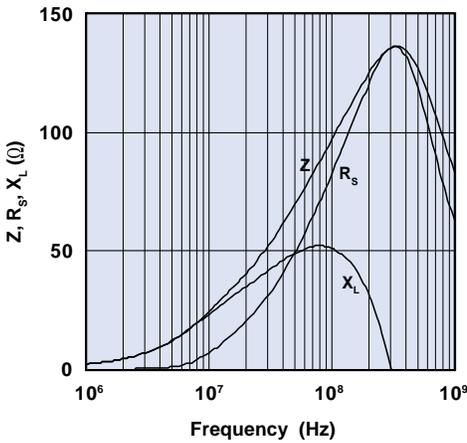
# Chip Beads



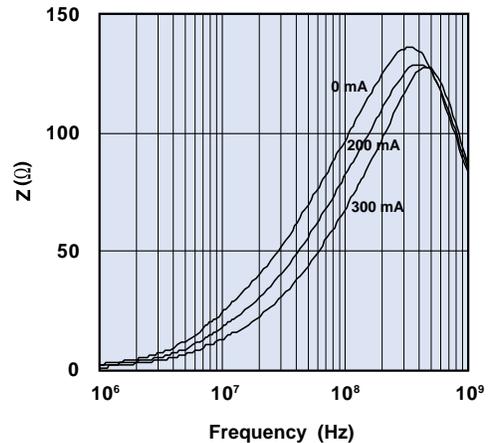
**Figure 34A** Impedance, reactance, and resistance vs. frequency for chip bead 2512069007Y0.



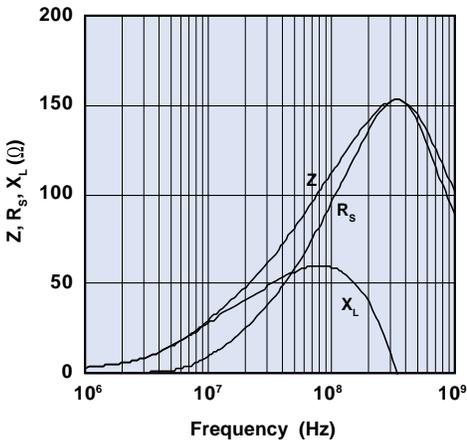
**Figure 34B** Impedance vs. frequency with dc bias as parameter for chip bead 2512069007Y0.



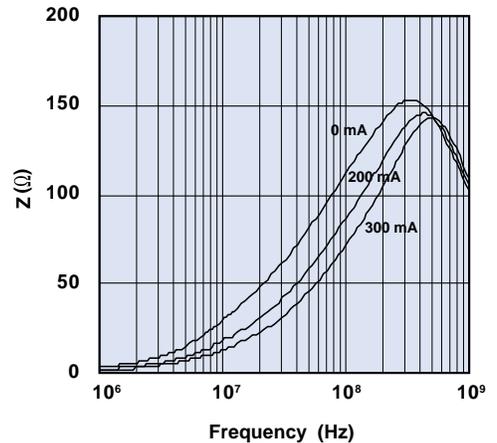
**Figure 35A** Impedance, reactance, and resistance vs. frequency for chip bead 2512061017Y0.



**Figure 35B** Impedance vs. frequency with dc bias as parameter for chip bead 2512061017Y0.

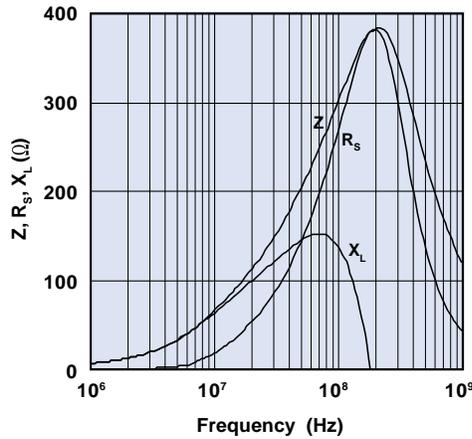


**Figure 36A** Impedance, reactance, and resistance vs. frequency for chip bead 2512061217Y0.

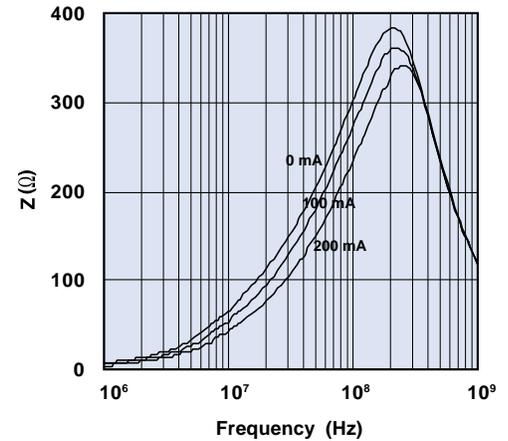


**Figure 36B** Impedance vs. frequency with dc bias as parameter for chip bead 2512061217Y0.

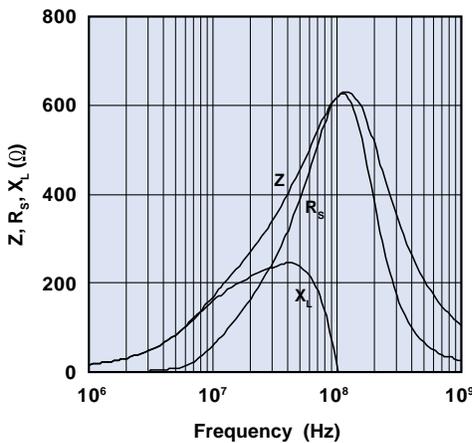
# Chip Beads



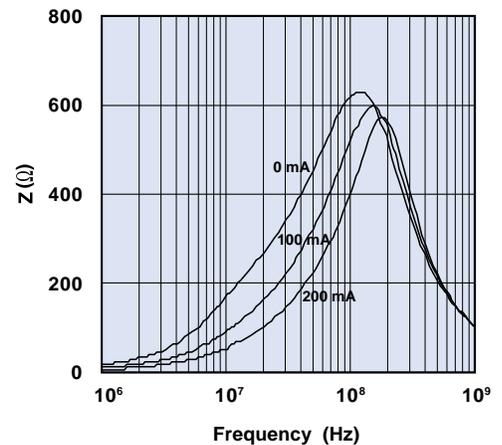
**Figure 37A** Impedance, reactance, and resistance vs. frequency for chip bead 2512063017Y0.



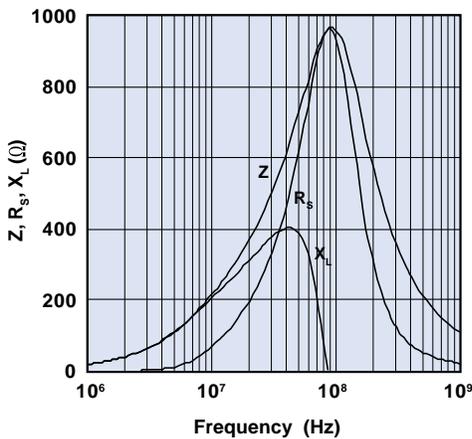
**Figure 37B** Impedance vs. frequency with dc bias as parameter for chip bead 2512063017Y0.



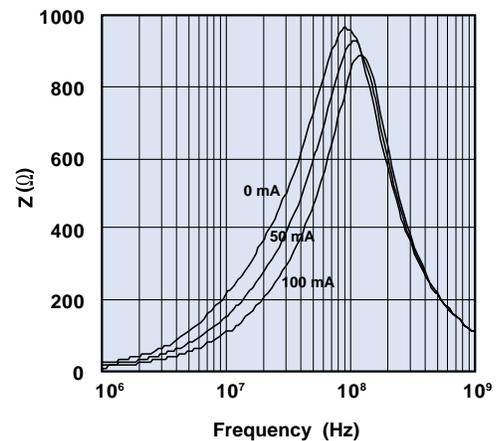
**Figure 38A** Impedance, reactance, and resistance vs. frequency for chip bead 2512066017Y0.



**Figure 38B** Impedance vs. frequency with dc bias as parameter for chip bead 2512066017Y0.

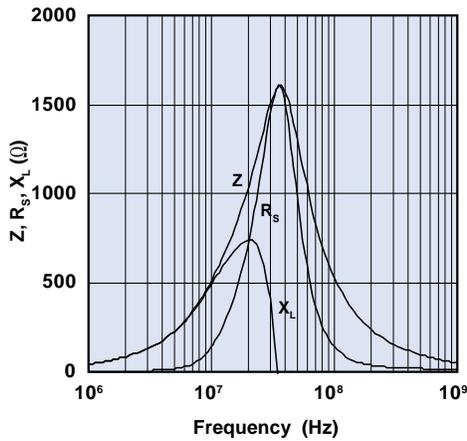


**Figure 39A** Impedance, reactance, and resistance vs. frequency for chip bead 2512061027Y0.

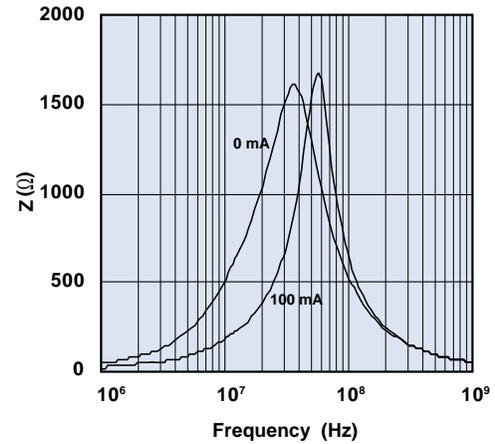


**Figure 39B** Impedance vs. frequency with dc bias as parameter for chip bead 2512061027Y0.

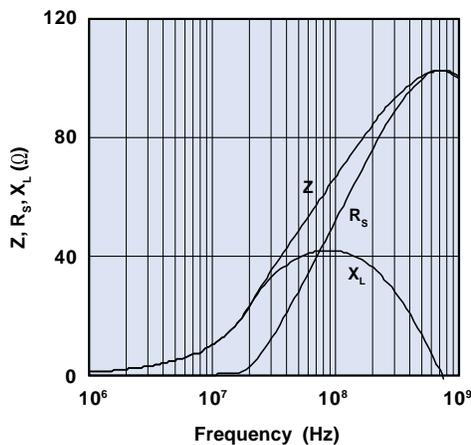
# Chip Beads



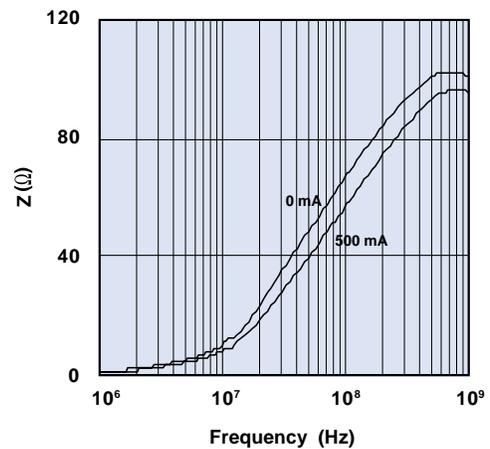
**Figure 40A** Impedance, reactance, and resistance vs. frequency for chip bead 2512061527Y0.



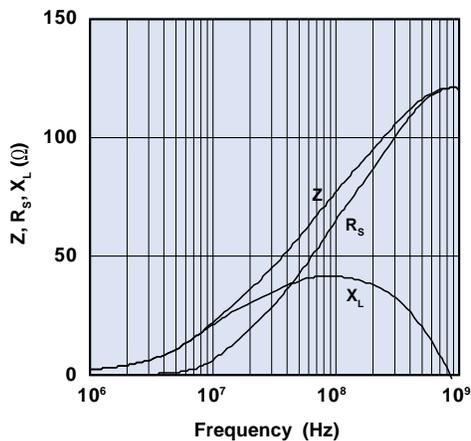
**Figure 40B** Impedance vs. frequency with dc bias as parameter for chip bead 2512061527Y0.



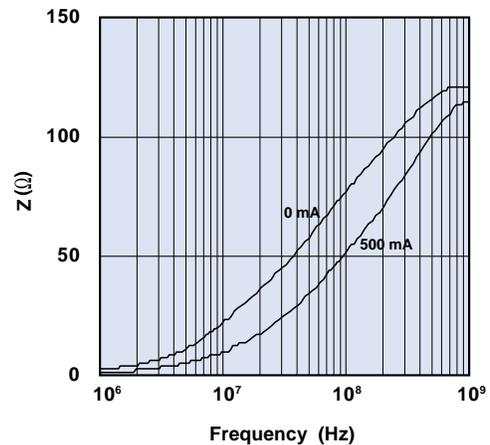
**Figure 41A** Impedance, reactance, and resistance vs. frequency for chip bead 2518066007Y0.



**Figure 41B** Impedance vs. frequency with dc bias as parameter for chip bead 2518066007Y0.



**Figure 42A** Impedance, reactance, and resistance vs. frequency for chip bead 2518067007Y0.



**Figure 42B** Impedance vs. frequency with dc bias as parameter for chip bead 2518067007Y0.

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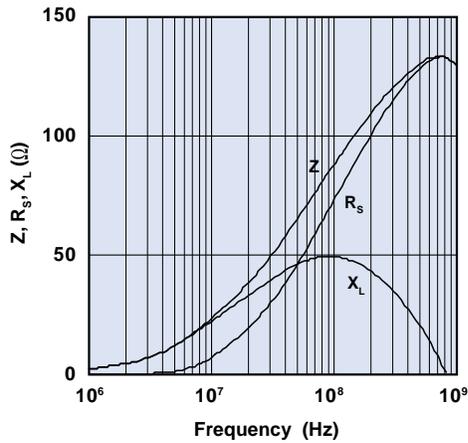


Figure 43A Impedance, reactance, and resistance vs. frequency for chip bead 2518068007Y0.

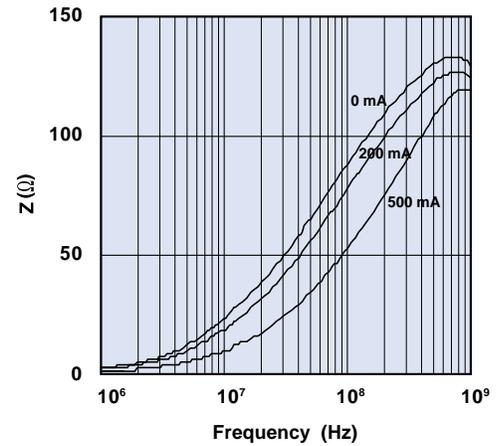


Figure 43B Impedance vs. frequency with dc bias as parameter for chip bead 2518068007Y0.

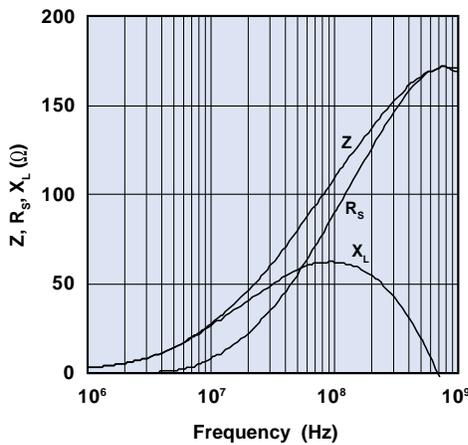


Figure 44A Impedance, reactance, and resistance vs. frequency for chip bead 2518061017Y0.

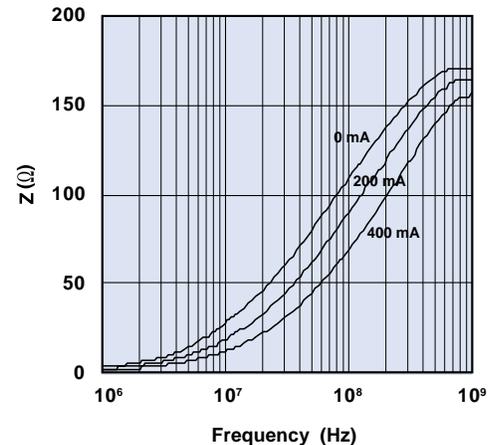


Figure 44B Impedance vs. frequency with dc bias as parameter for chip bead 2518061017Y0.

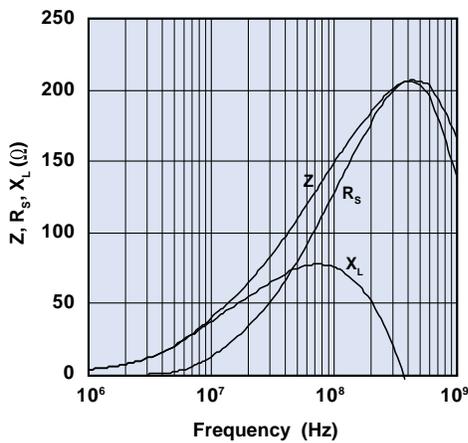


Figure 45A Impedance, reactance, and resistance vs. frequency for chip bead 2518061517Y0.

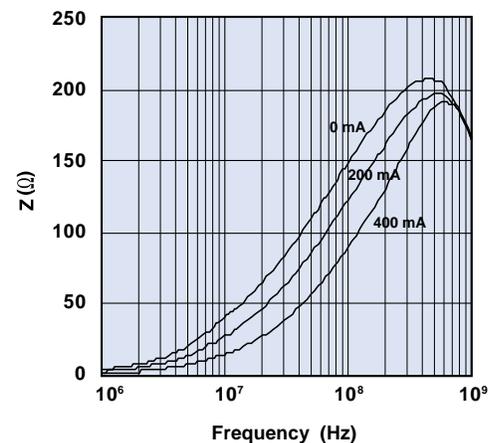


Figure 45B Impedance vs. frequency with dc bias as parameter for chip bead 2518061517Y0.

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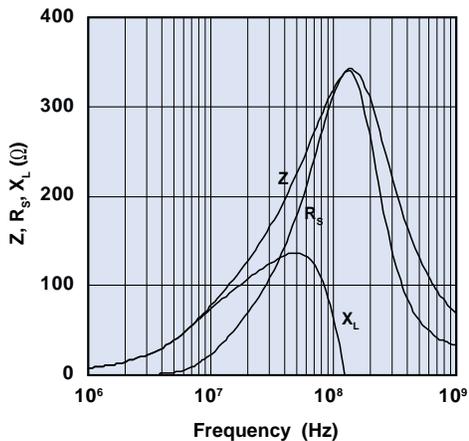


Figure 46A Impedance, reactance, and resistance vs. frequency for chip bead 2518063017Y0.

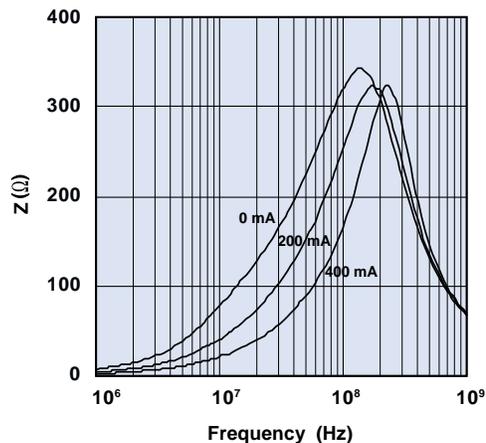


Figure 46B Impedance vs. frequency with dc bias as parameter for chip bead 2518063017Y0.

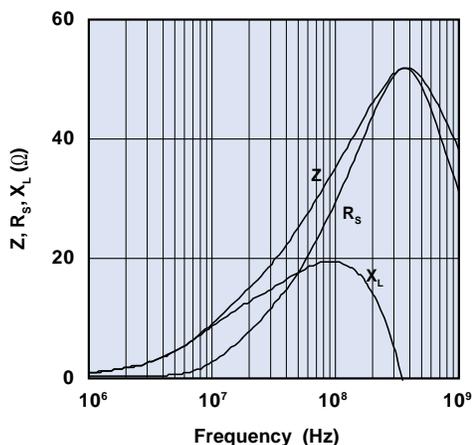


Figure 47A Impedance, reactance, and resistance vs. frequency for chip bead 2506033007Y1.

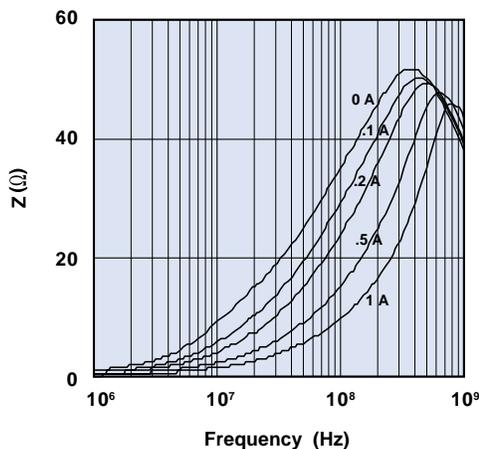


Figure 47B Impedance vs. frequency with dc bias as parameter for chip bead 2506033007Y1.

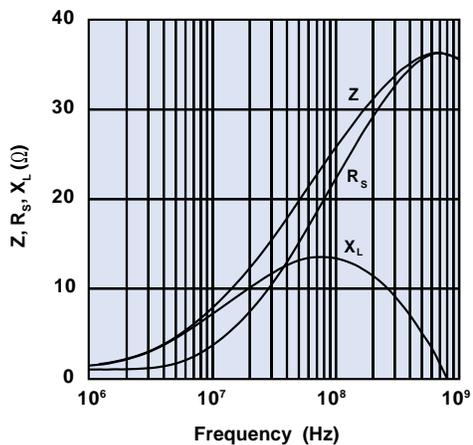


Figure 48A Impedance, reactance, and resistance vs. frequency for chip bead 2508053007Y3.

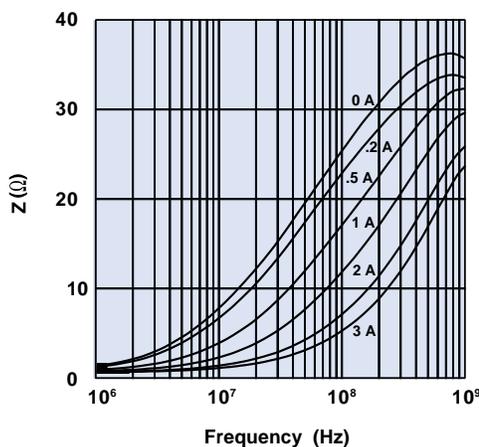
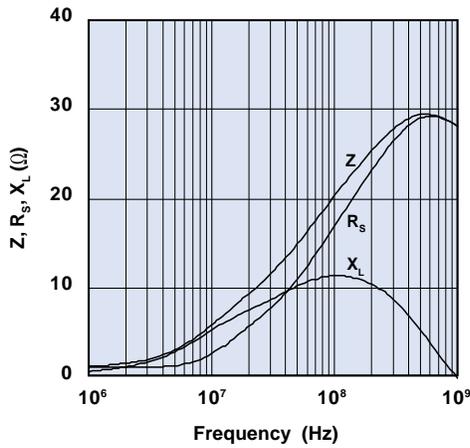
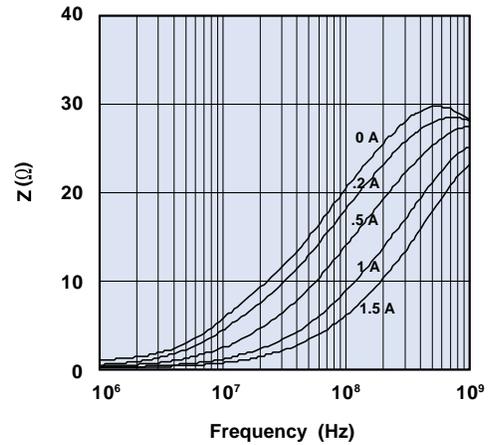


Figure 48B Impedance vs. frequency with dc bias as parameter for chip bead 2508053007Y3.

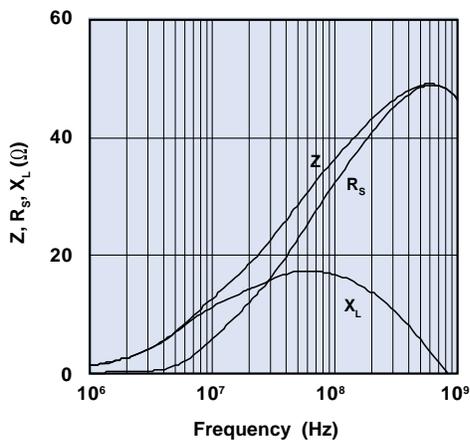
# Chip Beads



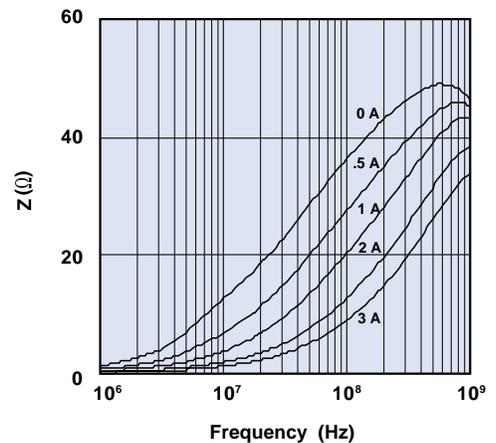
**Figure 49A** Impedance, reactance, and resistance vs. frequency for chip bead 2512061907Y1.



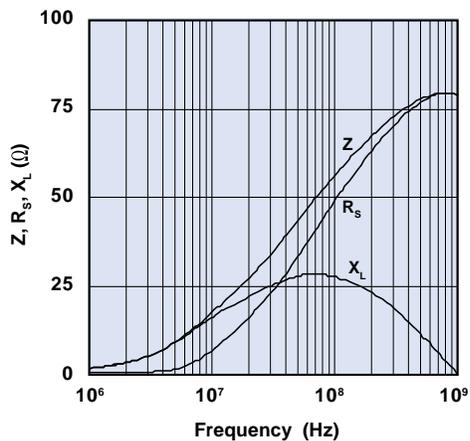
**Figure 49B** Impedance vs. frequency with dc bias as parameter for chip bead 2512061907Y1.



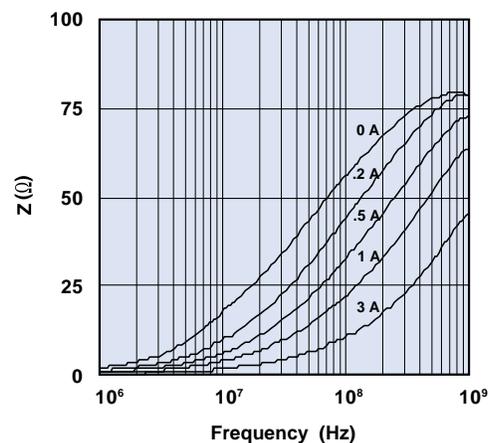
**Figure 50A** Impedance, reactance, and resistance vs. frequency for chip bead 2512063007Y3.



**Figure 50B** Impedance vs. frequency with dc bias as parameter for chip bead 2512063007Y3.

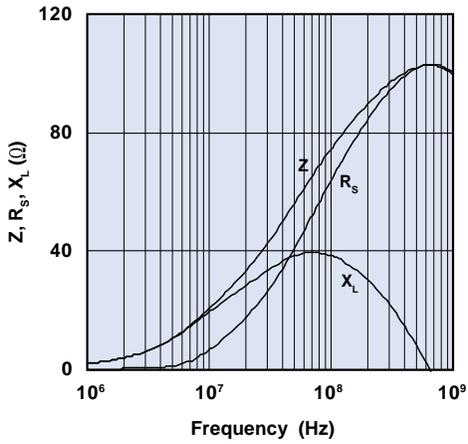


**Figure 51A** Impedance, reactance, and resistance vs. frequency for chip bead 2512065007Y3.

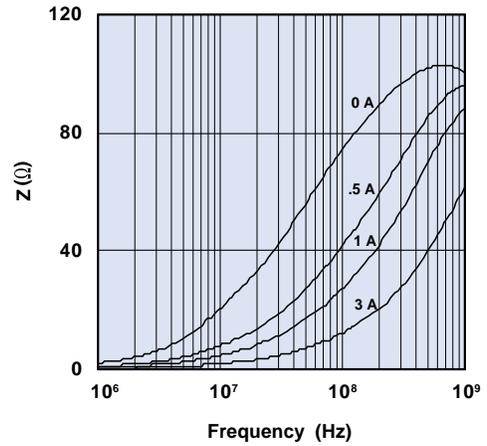


**Figure 51B** Impedance vs. frequency with dc bias as parameter for chip bead 2512065007Y3.

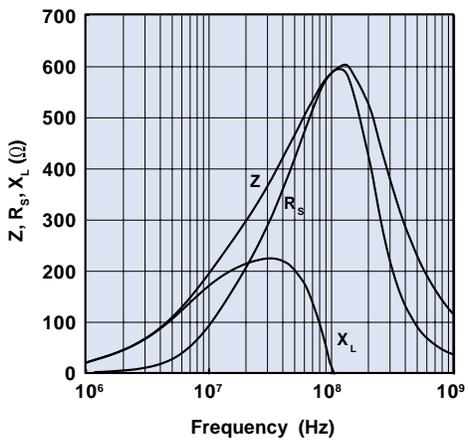
# Chip Beads



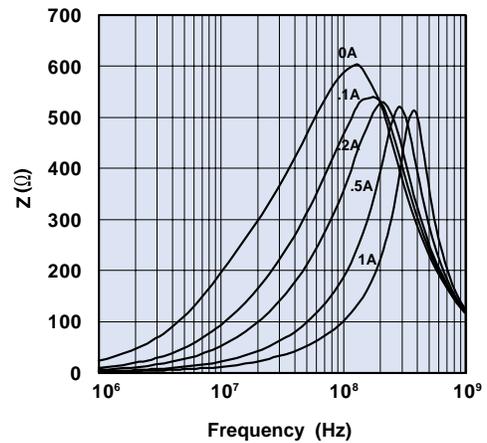
**Figure 52A** Impedance, reactance, and resistance vs. frequency for chip bead 2512067007Y3.



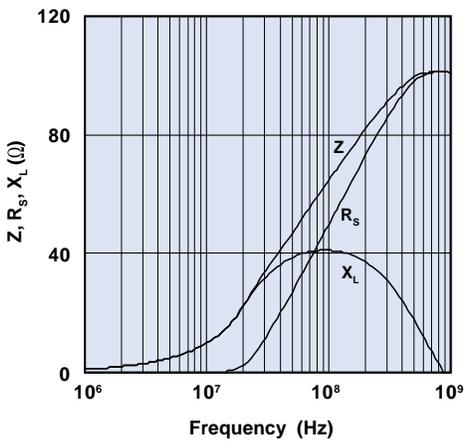
**Figure 52B** Impedance vs. frequency with dc bias as parameter for chip bead 2512067007Y3.



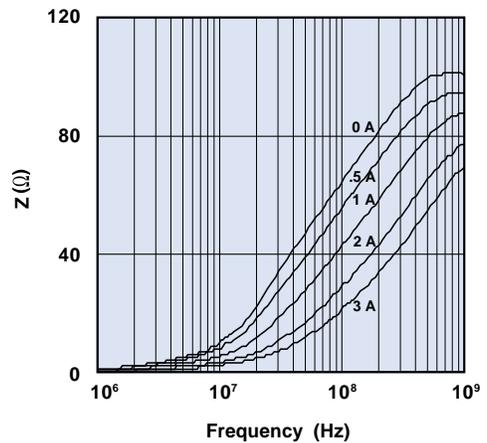
**Figure 53A** Impedance, reactance, and resistance vs. frequency for chip bead 2512066017Y1.



**Figure 53B** Impedance vs. frequency with dc bias as parameter for chip bead 2512066017Y1.

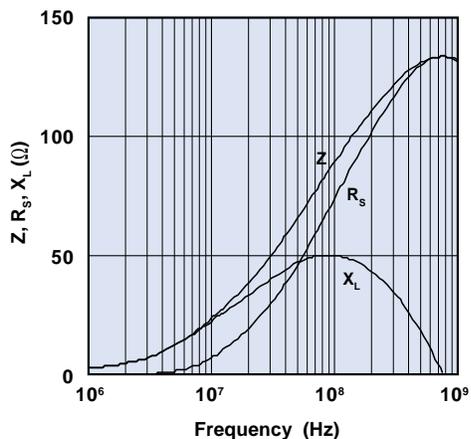


**Figure 54A** Impedance, reactance, and resistance vs. frequency for chip bead 2518066007Y3.

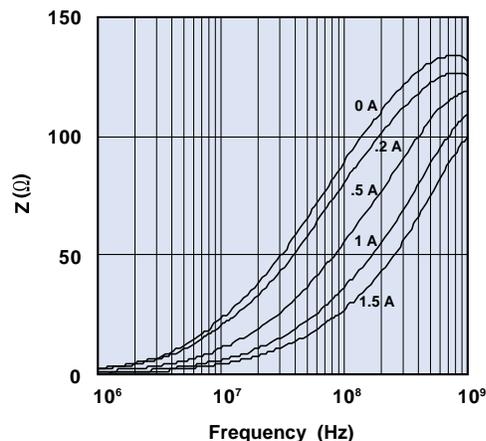


**Figure 54B** Impedance vs. frequency with dc bias as parameter for chip bead 2518066007Y3.

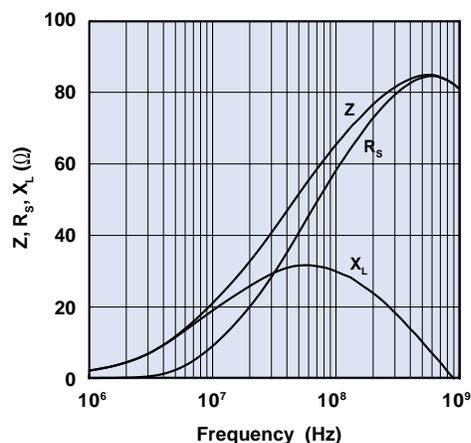
# Chip Beads



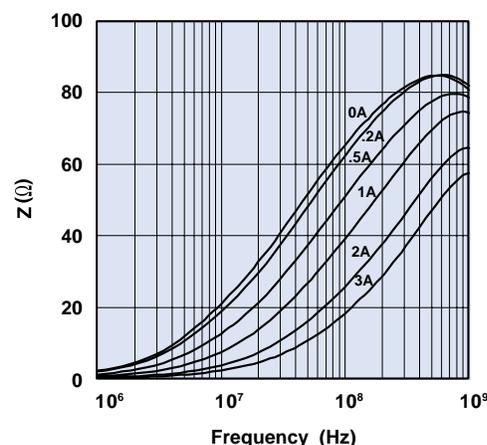
**Figure 55A** Impedance, reactance, and resistance vs. frequency for chip bead 2518068007Y1.



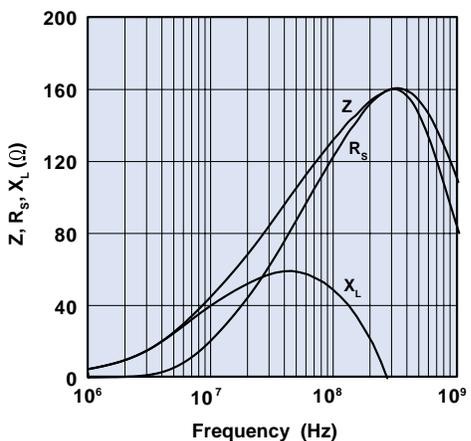
**Figure 55B** Impedance vs. frequency with dc bias as parameter for chip bead 2518068007Y1.



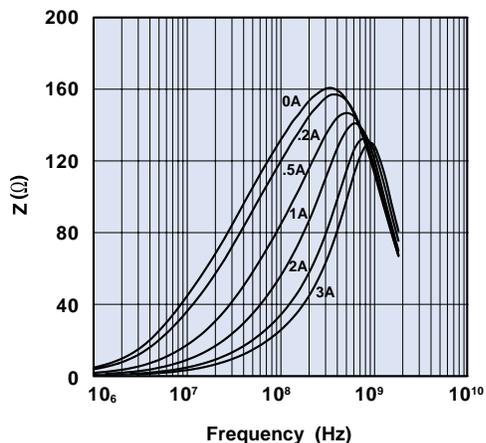
**Figure 56A** Impedance, reactance, and resistance vs. frequency for chip bead 251812007Y3.



**Figure 56B** Impedance vs. frequency with dc bias as parameter for chip bead 251812007Y3.

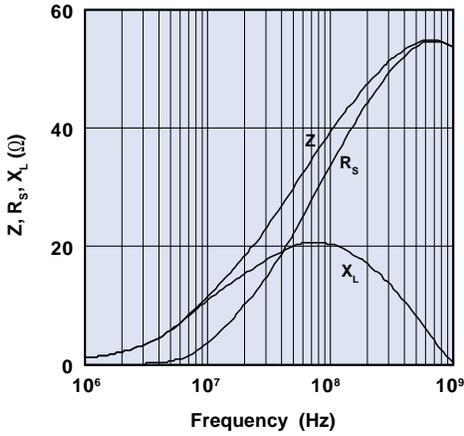


**Figure 57A** Impedance, reactance, and resistance vs. frequency for chip bead 2518121217Y3.

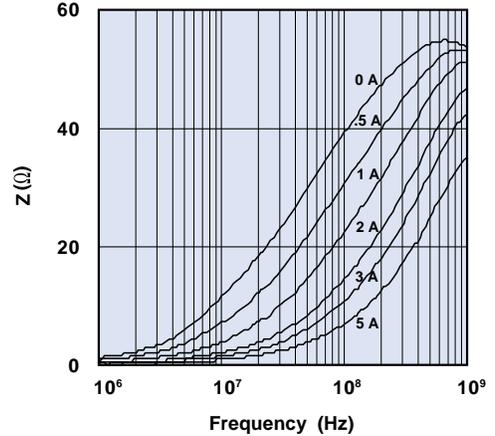


**Figure 57B** Impedance vs. frequency with dc bias as parameter for chip bead 2518121217Y3.

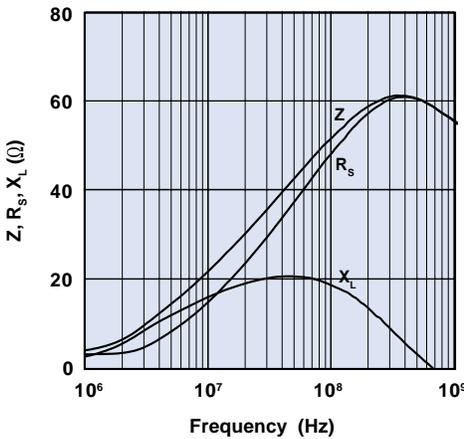
# Chip Beads



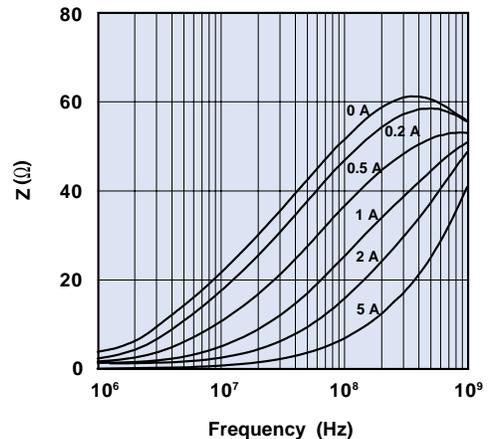
**Figure 58A** Impedance, reactance, and resistance vs. frequency for chip bead 2512065007Y6.



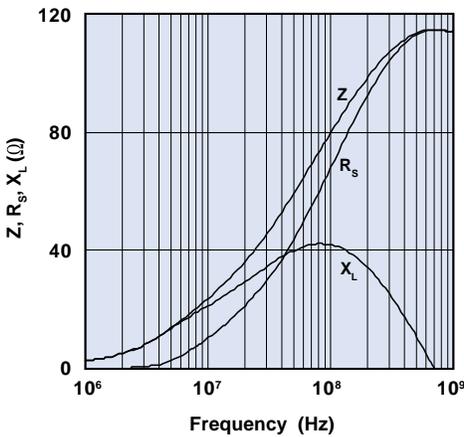
**Figure 59B** Impedance vs. frequency with dc bias as parameter for chip bead 2512065007Y6.



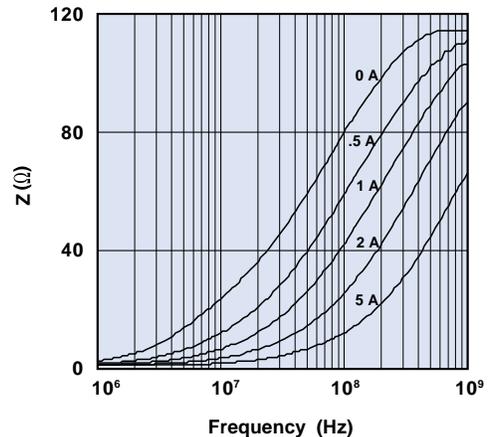
**Figure 59A** Impedance, reactance, and resistance vs. frequency for chip bead 2518065007Y6.



**Figure 59B** Impedance vs. frequency with dc bias as parameter for chip bead 2518065007Y6.

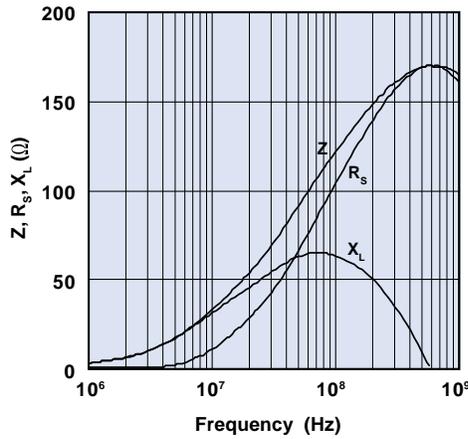


**Figure 60A** Impedance, reactance, and resistance vs. frequency for chip bead 2518068007Y6.

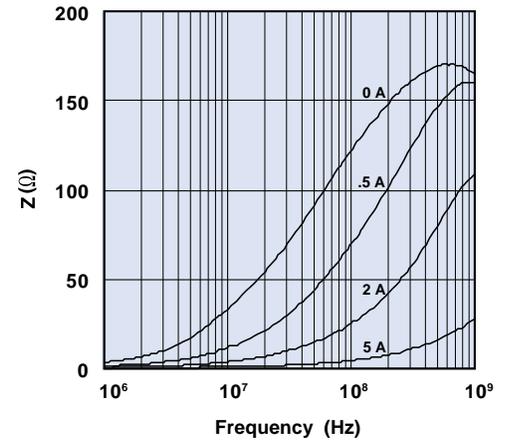


**Figure 60B** Impedance vs. frequency with dc bias as parameter for chip bead 2518068007Y6.

# Chip Beads



**Figure 61A** Impedance, reactance, and resistance vs. frequency for chip bead 2518121217Y6.



**Figure 61B** Impedance vs. frequency with dc bias as parameter for chip bead 2518121217Y6.