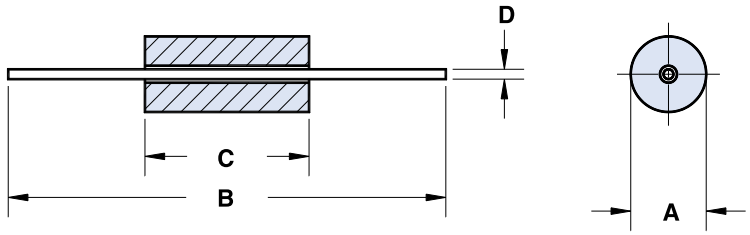
Beads on Leads

Beads are supplied assembled on tinned copper wire to aid automated circuit assembly.

- *Parts with a "2" as the last digit of the part number are supplied taped and reeled per IEC 60286-1 and EIA Standard RS-296-F. Taped and reeled parts are supplied 4500 pieces on a 14" reel. Inside tape spacing is **52.4±1.5 mm**. These parts can also be supplied not taped and reeled and are then bulk packed. The last digit of bulk packaged part number is a "1".*



- *Wires are oxygen free high conductivity copper with a tin/lead coating. The resistance of the wire is 3.5 mΩ maximum for the 22 AWG wire and 2.2 mΩ maximum for the 20 AWG wire.*
- *Beads are controlled for impedance limits only. They are tested for impedance with a single turn, using a Hewlett Packard HP 4193A Vector Impedance Meter for beads in 73 and 43 material and the HP 4191A RF Impedance Analyzer for 61 material beads.*
- *Recommended storage and operating temperature is –55°C to 125°C.*
- *For impedance vs. frequency curves and DC bias curves for these parts, see Figures 1-30.*
- *For any bead on lead requirement not listed in the catalog, please contact our customer service group for availability and pricing.*
- *The Bead on Lead EMI Suppressor Kit (part number 0199000028) is available for prototype evaluation. See page 92.*

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

Part Number*	A	B	C	D	Wt (g)	Typical Impedance(Ω) [1]				Z, R_s, X_L vs. Frequency Curve	DC Bias Curve
						10 MHz	25 MHz	100 MHz	250 MHz		
2773001112	**3.5±0.25** .138	**62.0±1.5** 2.440	**4.45±0.25** .175	**0.65** 22 AWG	.4	48	61	–	–	Figure 1A	Figure 1B
2743001112	**3.5±0.25** .138	**62.0±1.5** 2.440	**4.45±0.25** .175	**0.65** 22 AWG	.4	–	49	68	–	Figure 2A	Figure 2B
2761001112	**3.5±0.25** .138	**62.0±1.5** 2.440	**4.45±0.25** .175	**0.65** 22 AWG	.4	–	–	56	80	Figure 3A	Figure 3B
2773015112	**3.5±0.25** .138	**62.0±1.5** 2.440	**5.25±0.25** .206	**0.65** 22 AWG	.4	55	68	–	–	Figure 4A	Figure 4B
2743015112	**3.5±0.25** .138	**62.0±1.5** 2.440	**5.25±0.25** .206	**0.65** 22 AWG	.4	–	54	82	–	Figure 5A	Figure 5B
2761015112	**3.5±0.25** .138	**62.0±1.5** 2.440	**5.25±0.25** .206	**0.65** 22 AWG	.4	–	–	69	100	Figure 6A	Figure 6B
2773005112	**3.5±0.25** .138	**62.0±1.5** 2.440	**6.0±0.25** .236	**0.65** 22 AWG	.4	63	78	–	–	Figure 7A	Figure 7B
2743005112	**3.5±0.25** .138	**62.0±1.5** 2.440	**6.0±0.25** .236	**0.65** 22 AWG	.4	–	60	91	–	Figure 8A	Figure 8B
2761005112	**3.5±0.25** .138	**62.0±1.5** 2.440	**6.0±0.25** .236	**0.65** 22 AWG	.4	–	–	75	113	Figure 9A	Figure 9B
2773003112	**3.5±0.25** .138	**62.0±1.5** 2.440	**6.7±0.25** .263	**0.65** 22 AWG	.5	70	86	–	–	Figure 10A	Figure 10B

** Bold part numbers designate preferred parts.*

[1]Guaranteed Z Min is Z Typ -20%

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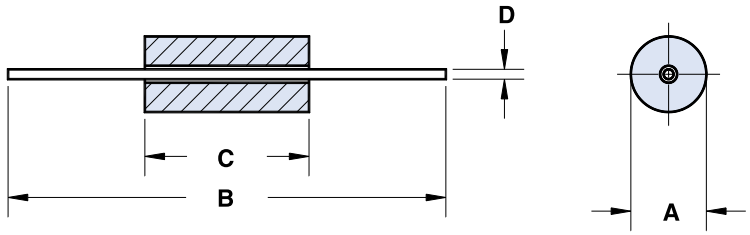
Beads on Leads



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

Part Number*	A	B	C	D	Wt (g)	Typical Impedance(Ω) [1]				Z, R_s, X_L vs. Frequency Curve	DC Bias Curve
						10 MHz	25 MHz	100 MHz	250 MHz		
2743003112	**3.5±0.25** .138	**62.0±1.5** 2.440	**6.7±0.25** .263	**0.65** 22 AWG	.5	–	65	100	–	Figure 11A	Figure 11B
2761003112	**3.5±0.25** .138	**62.0±1.5** 2.440	**6.7±0.25** .263	**0.65** 22 AWG	.5	–	–	88	125	Figure 12A	Figure 12B
2773004112	**3.5±0.25** .138	**62.0±1.5** 2.440	**7.6±0.3** .300	**0.65** 22 AWG	.5	80	100	–	–	Figure 13A	Figure 13B
2743004112	**3.5±0.25** .138	**62.0±1.5** 2.440	**7.6±0.3** .300	**0.65** 22 AWG	.5	–	75	110	–	Figure 14A	Figure 14B
2761004112	**3.5±0.25** .138	**62.0±1.5** 2.440	**7.6±0.3** .300	**0.65** 22 AWG	.5	–	–	94	144	Figure 15A	Figure 15B
2773002112	**3.5±0.25** .138	**62.0±1.5** 2.440	**8.9±0.3** .350	**0.65** 22 AWG	.6	94	115	–	–	Figure 16A	Figure 16B
2743002112	**3.5±0.25** .138	**62.0±1.5** 2.440	**8.9±0.3** .350	**0.65** 22 AWG	.6	–	88	133	–	Figure 17A	Figure 17B
2761002112	**3.5±0.25** .138	**62.0±1.5** 2.440	**8.9±0.3** .350	**0.65** 22 AWG	.6	–	–	113	168	Figure 18A	Figure 18B
2773007112	**3.5±0.25** .138	**62.0±1.5** 2.440	**9.5±0.3** .374	**0.65** 22 AWG	.6	110	115	–	–	Figure 19A	Figure 19B
2743007112	**3.5±0.25** .138	**62.0±1.5** 2.440	**9.5±0.3** .374	**0.65** 22 AWG	.6	–	96	150	–	Figure 20A	Figure 20B
2761007112	**3.5±0.25** .138	**62.0±1.5** 2.440	**9.5±0.3** .374	**0.65** 22 AWG	.6	–	–	125	180	Figure 21A	Figure 21B
2773008112	**3.5±0.25** .138	**62.0±1.5** 2.440	**11.4±0.4** .450	**0.65** 22 AWG	.7	125	145	–	–	Figure 22A	Figure 22B
2743008112	**3.5±0.25** .138	**62.0±1.5** 2.440	**11.4±0.4** .450	**0.65** 22 AWG	.7	–	116	180	–	Figure 23A	Figure 23B
2761008112	**3.5±0.25** .138	**62.0±1.5** 2.440	**11.4±0.4** .450	**0.65** 22 AWG	.7	–	–	144	213	Figure 24A	Figure 24B
2773009112	**3.5±0.25** .138	**62.0±1.5** 2.440	**13.8±0.5** .545	**0.65** 22 AWG	.8	151	170	–	–	Figure 25A	Figure 25B
2743009112	**3.5±0.25** .138	**62.0±1.5** 2.440	**13.8±0.5** .545	**0.65** 22 AWG	.8	–	143	220	–	Figure 26A	Figure 26B
2761009112	**3.5±0.25** .138	**62.0±1.5** 2.440	**13.8±0.5** .545	**0.65** 22 AWG	.8	–	–	175	258	Figure 27A	Figure 27B
2743012201+	**9.8±0.3** .385	**62.0±1.5** 2.440	**11.4±0.4** .449	**0.8** 20 AWG	4.5	–	193	271	–	Figure 28A	Figure 28B
2743013211+	**9.8±0.3** .385	**62.0±1.5** 2.440	**14.0±0.5** .550	**0.8** 20 AWG	5.5	–	235	331	–	Figure 29A	Figure 29B
2743014221+	**9.8±0.3** .385	**62.0±1.5** 2.440	**16.5±0.5** .650	**0.8** 20 AWG	6.5	–	280	391	–	Figure 30A	Figure 30B

** Bold part numbers designate preferred parts.*
+ Not available taped and reeled.

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Beads on Leads

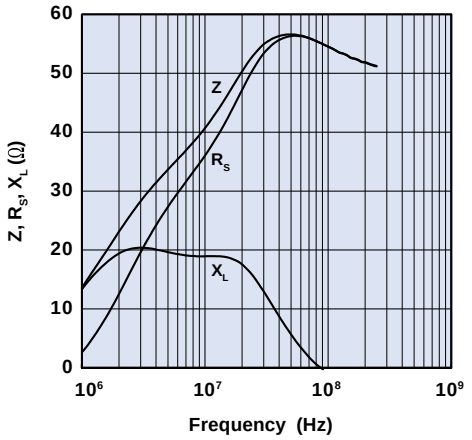

Figure 1A Impedance, reactance, and resistance vs. frequency for bead on lead 2773001112.

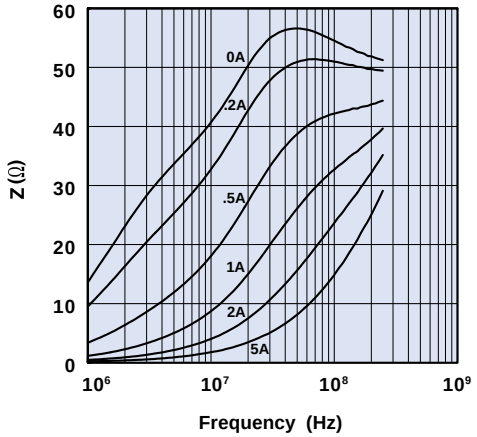

Figure 1B Impedance vs. frequency with dc bias as parameter for bead on lead 2773001112.

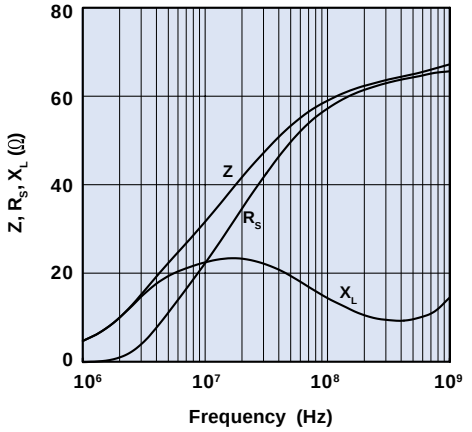

Figure 2A Impedance, reactance, and resistance vs. frequency for bead on lead 2743001112.

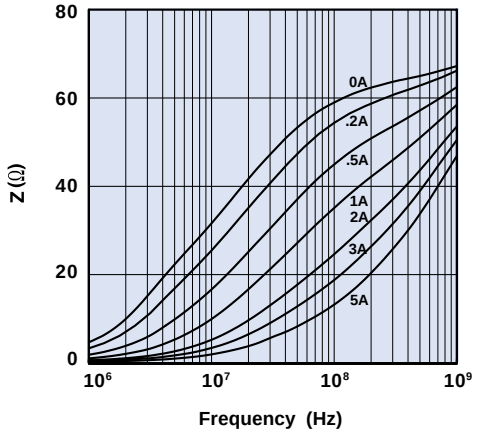

Figure 2B Impedance vs. frequency with dc bias as parameter for bead on lead 2743001112.

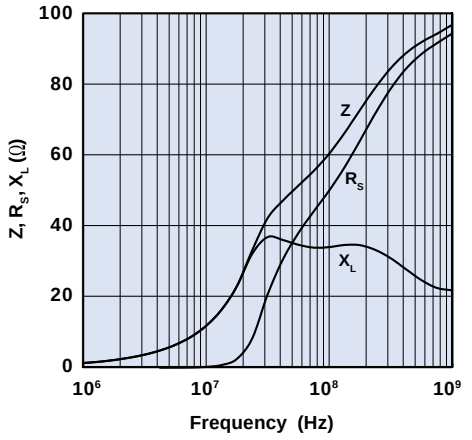

Figure 3A Impedance, reactance, and resistance vs. frequency for bead on lead 2761001112.

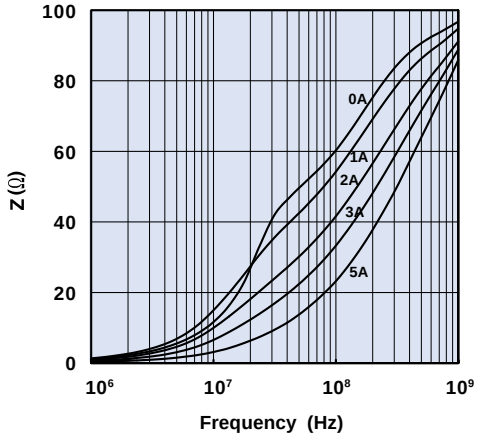

Figure 3B Impedance vs. frequency with dc bias as parameter for bead on lead 2761001112.

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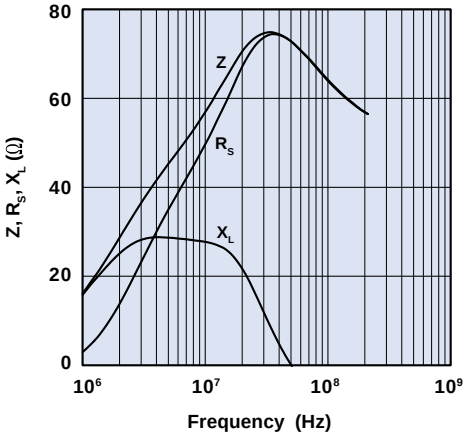

Figure 4A Impedance, reactance, and resistance vs. frequency for bead on lead 2773015112.

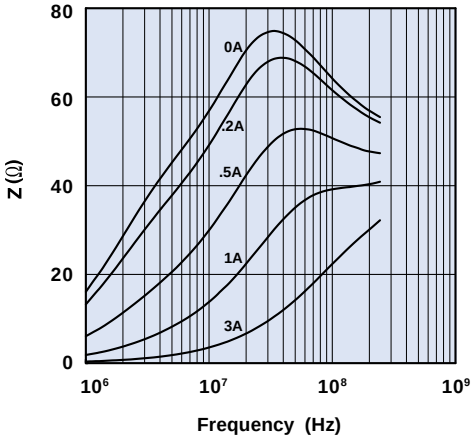

Figure 4B Impedance vs. frequency with dc bias as parameter for bead on lead 2773015112.

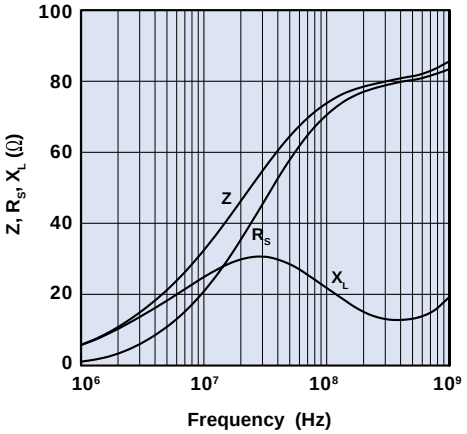

Figure 5A Impedance, reactance, and resistance vs. frequency for bead on lead 2743015112.

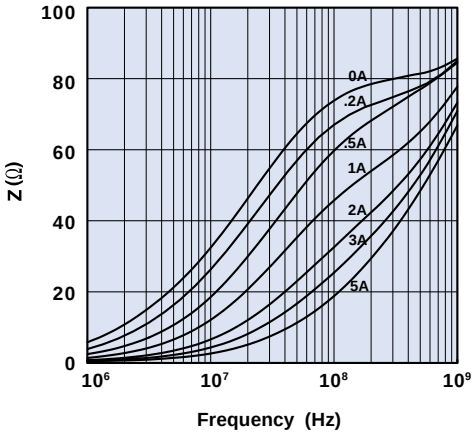

Figure 5B Impedance vs. frequency with dc bias as parameter for bead on lead 2743015112.

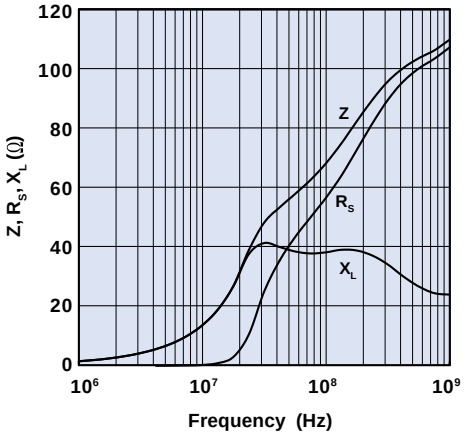

Figure 6A Impedance, reactance, and resistance vs. frequency for bead on lead 2761015112.

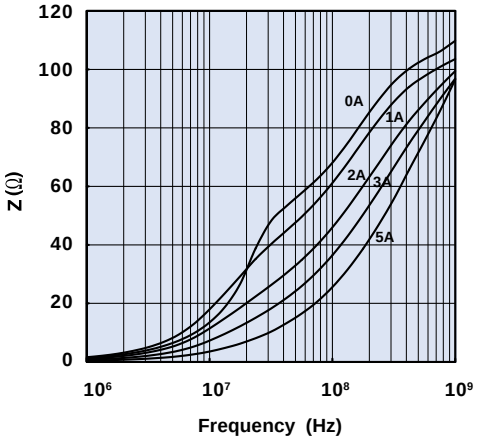

Figure 6B Impedance vs. frequency with dc bias as parameter for bead on lead 2761015112.

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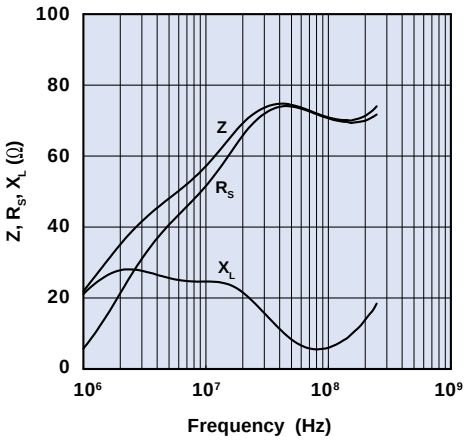

Figure 7A Impedance, reactance, and resistance vs. frequency for bead on lead 2773005112.

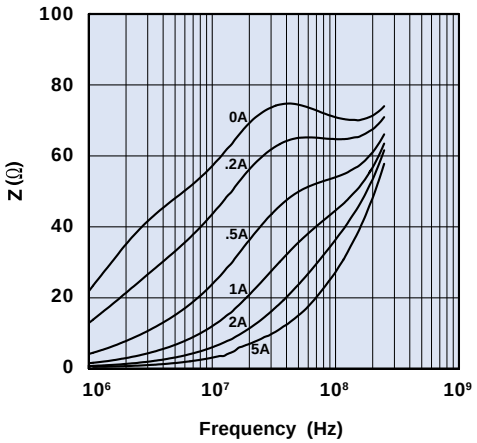

Figure 7B Impedance vs. frequency with dc bias as parameter for bead on lead 2773005112.

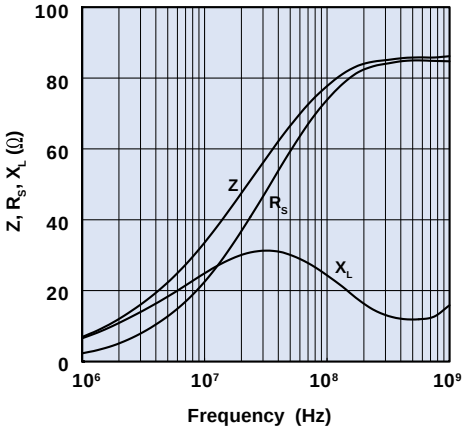

Figure 8A Impedance, reactance, and resistance vs. frequency for bead on lead 2743005112.

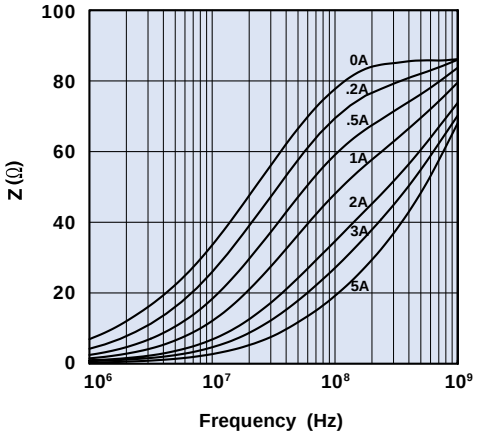

Figure 8B Impedance vs. frequency with dc bias as parameter for bead on lead 2743005112.

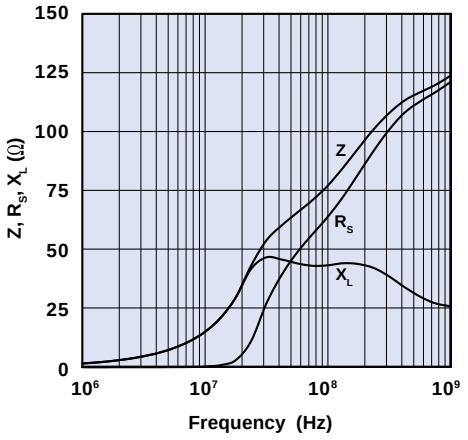

Figure 9A Impedance, reactance, and resistance vs. frequency for bead on lead 2761005112.

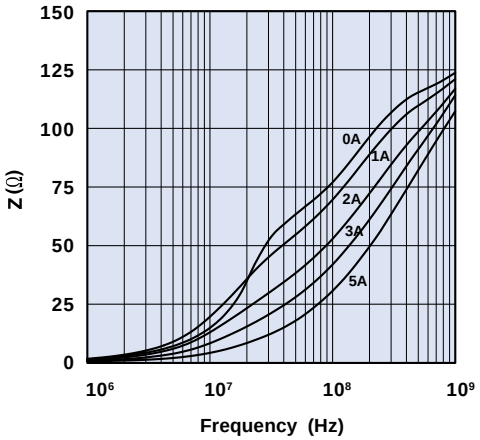

Figure 9B Impedance vs. frequency with dc bias as parameter for bead on lead 2761005112.

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Beads on Leads

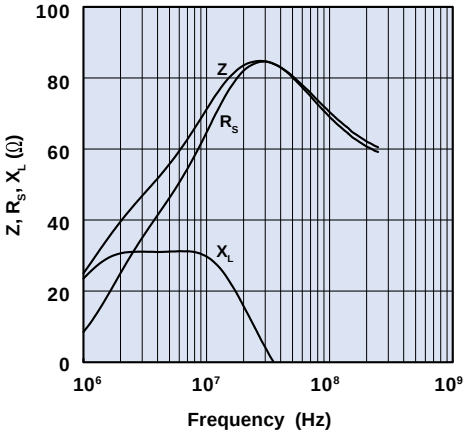

Figure 10A Impedance, reactance, and resistance vs. frequency for bead on lead 2773003112.

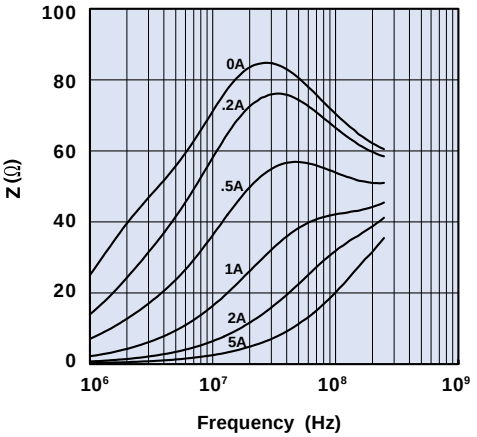

Figure 10B Impedance vs. frequency with dc bias as parameter for bead on lead 2773003112.

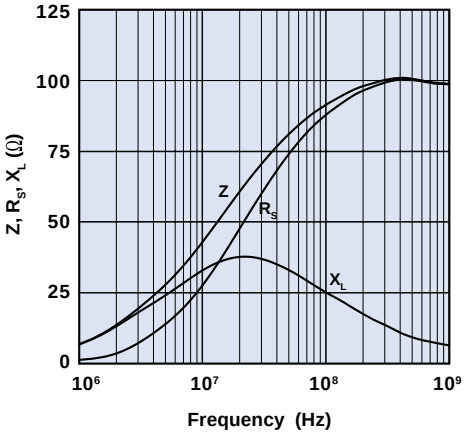

Figure 11A Impedance, reactance, and resistance vs. frequency for bead on lead 2743003112.

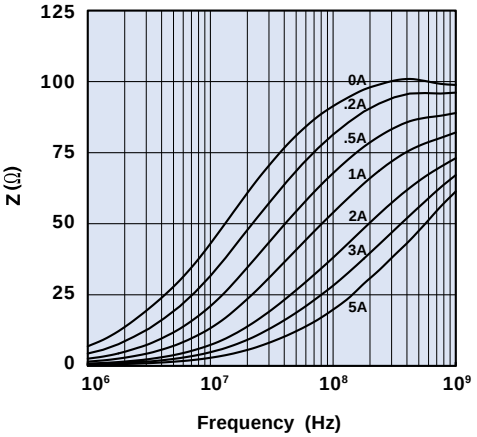

Figure 11B Impedance vs. frequency with dc bias as parameter for bead on lead 2743003112.

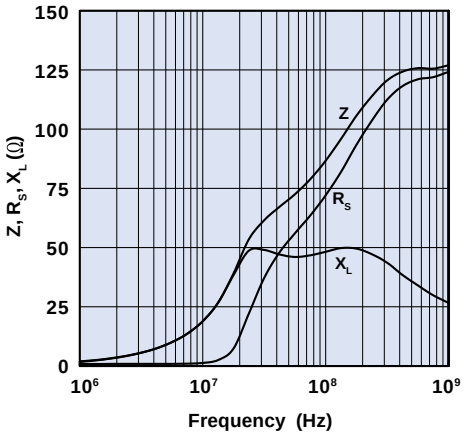

Figure 12A Impedance, reactance, and resistance vs. frequency for bead on lead 2761003112.

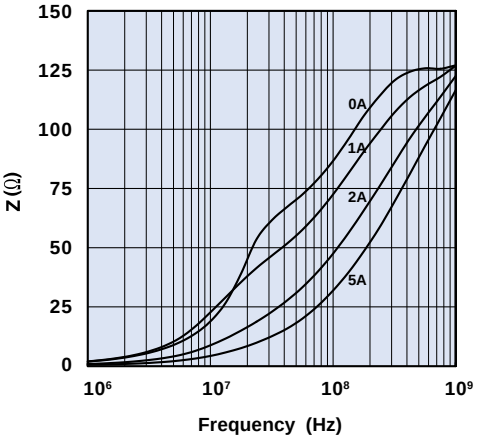

Figure 12B Impedance vs. frequency with dc bias as parameter for bead on lead 2761003112.

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Beads on Leads

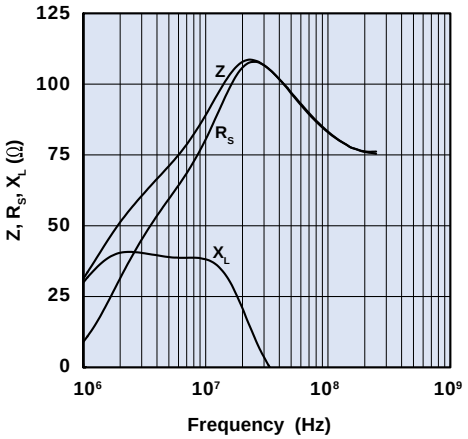

Figure 13A Impedance, reactance, and resistance vs. frequency for bead on lead 2773004112.

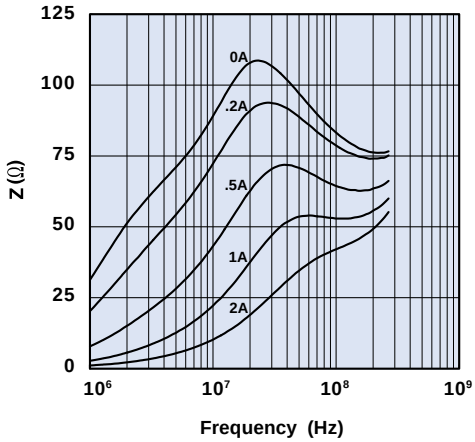

Figure 13B Impedance vs. frequency with dc bias as parameter for bead on lead 2773004112.

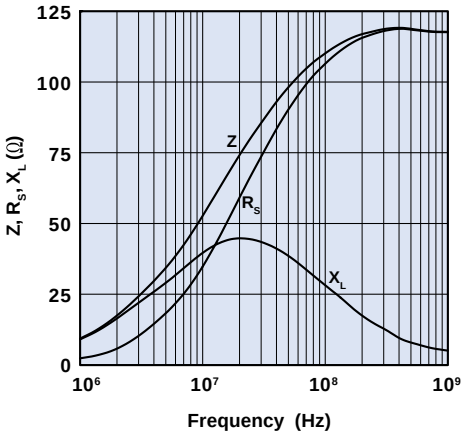

Figure 14A Impedance, reactance, and resistance vs. frequency for bead on lead 2743004112.

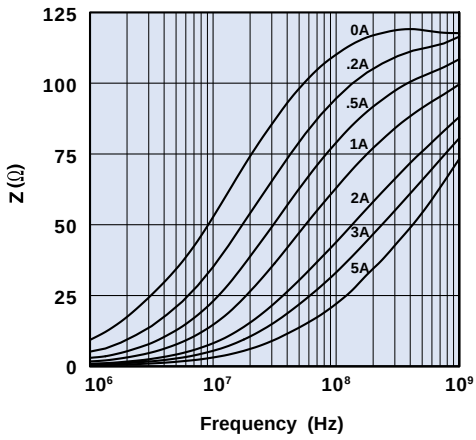

Figure 14B Impedance vs. frequency with dc bias as parameter for bead on lead 2743004112.

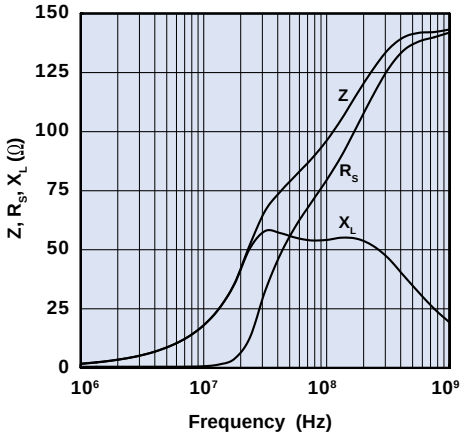

Figure 15A Impedance, reactance, and resistance vs. frequency for bead on lead 2761004112.

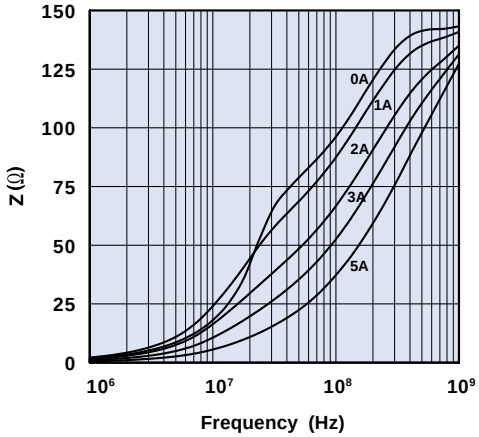

Figure 15B Impedance vs. frequency with dc bias as parameter for bead on lead 2761004112.

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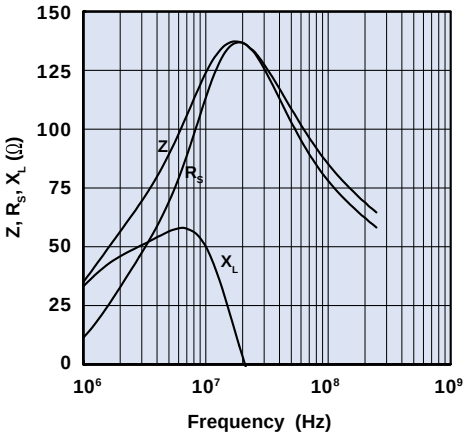

Figure 16A Impedance, reactance, and resistance vs. frequency for bead on lead 2773002112.

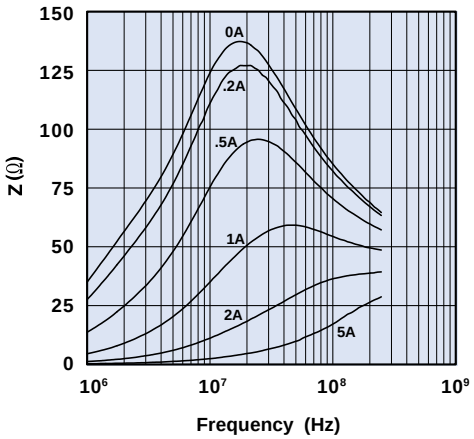

Figure 16B Impedance vs. frequency with dc bias as parameter for bead on lead 2773002112.

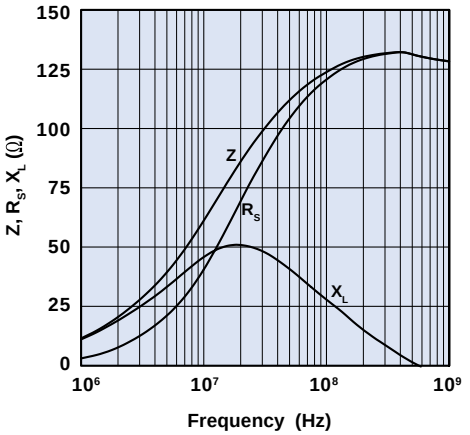

Figure 17A Impedance, reactance, and resistance vs. frequency for bead on lead 2743002112.

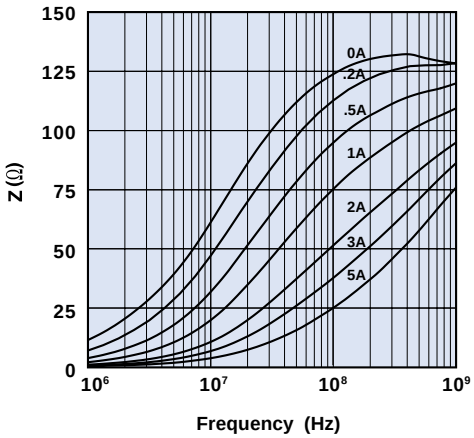

Figure 17B Impedance vs. frequency with dc bias as parameter for bead on lead 2743002112.

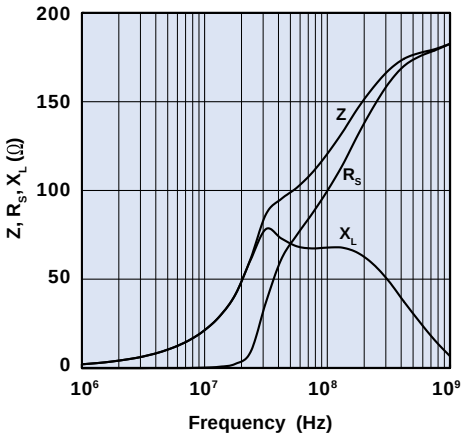

Figure 18A Impedance, reactance, and resistance vs. frequency for bead on lead 2761002112.

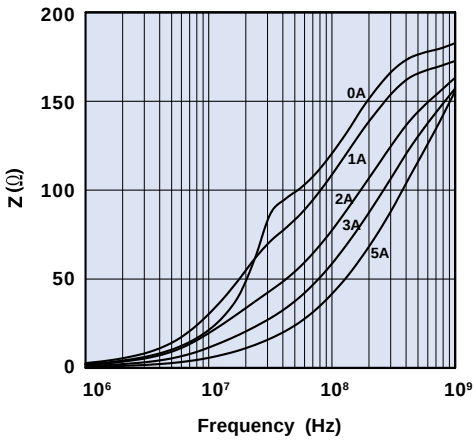

Figure 18B Impedance vs. frequency with dc bias as parameter for bead on lead 2761002112.

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Beads on Leads

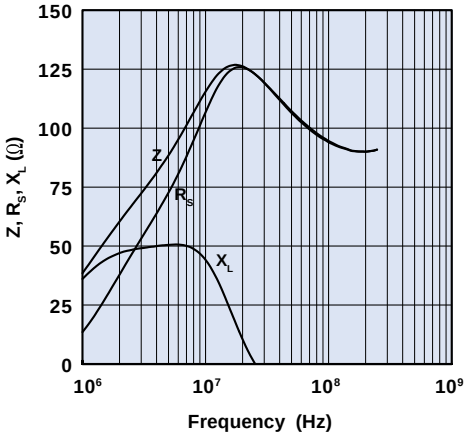

Figure 19A Impedance, reactance, and resistance vs. frequency for bead on lead 2773007112.

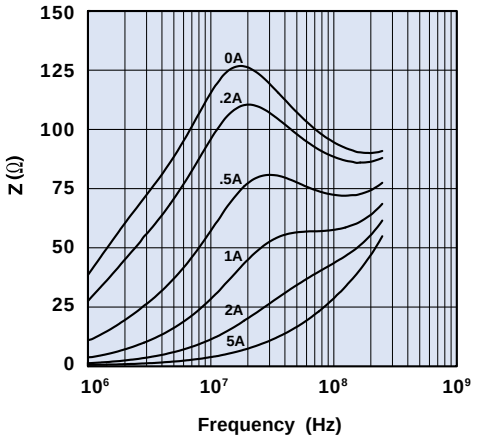

Figure 19B Impedance vs. frequency with dc bias as parameter for bead on lead 2773007112.

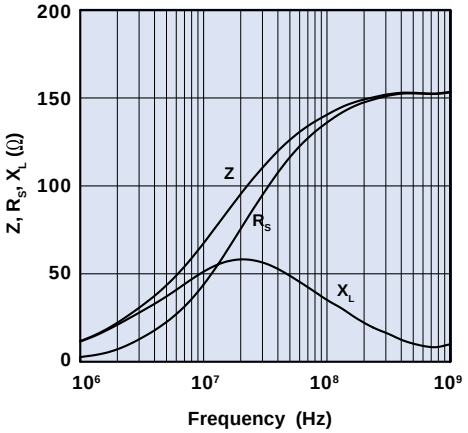

Figure 20A Impedance, reactance, and resistance vs. frequency for bead on lead 2743007112.

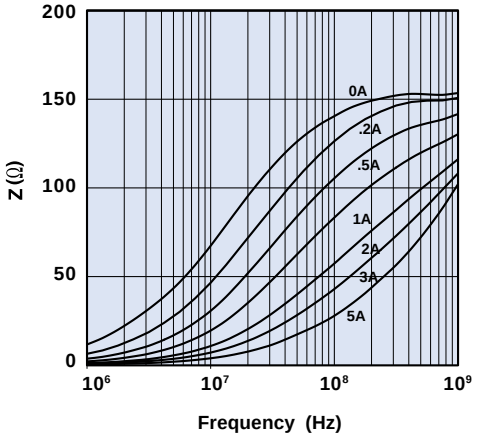

Figure 20B Impedance vs. frequency with dc bias as parameter for bead on lead 2743007112.

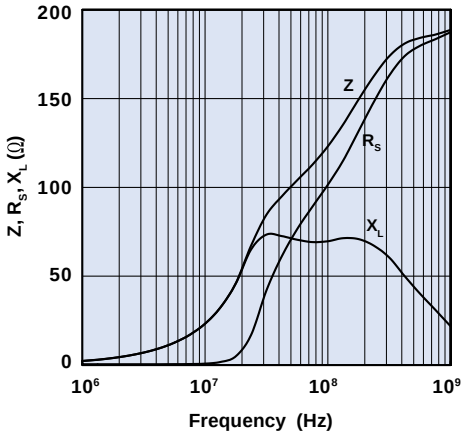

Figure 21A Impedance, reactance, and resistance vs. frequency for bead on lead 2761007112.

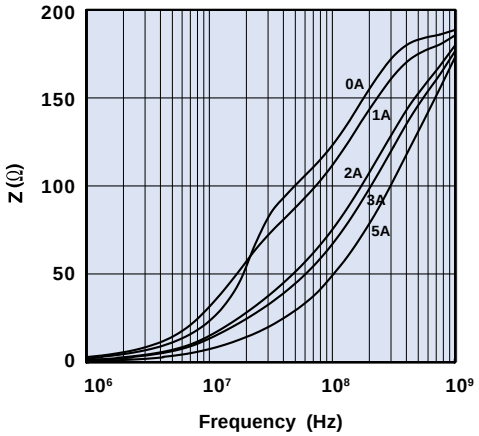

Figure 21B Impedance vs. frequency with dc bias as parameter for bead on lead 2761007112.

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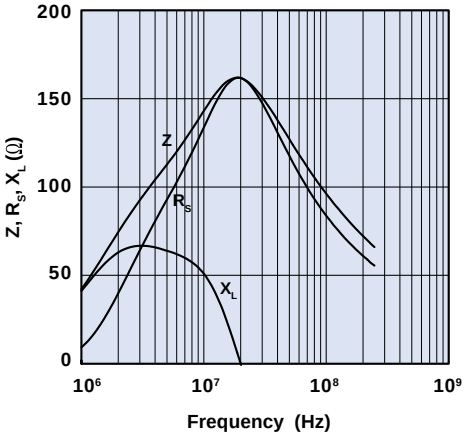

Figure 22A Impedance, reactance, and resistance vs. frequency for bead on lead 2773008112.

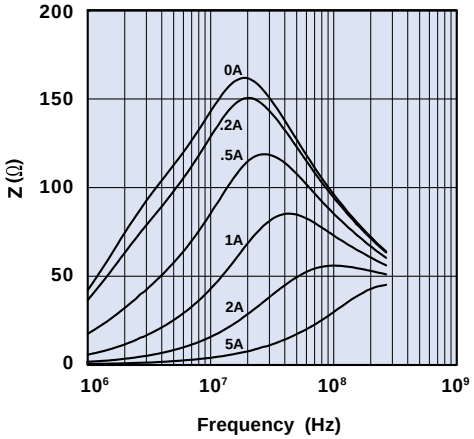

Figure 22B Impedance vs. frequency with dc bias as parameter for bead on lead 2773008112.

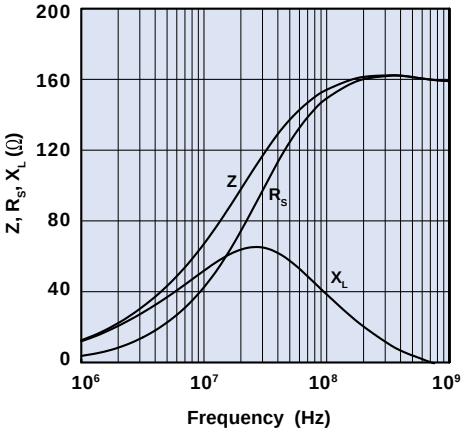

Figure 23A Impedance, reactance, and resistance vs. frequency for bead on lead 2743008112.

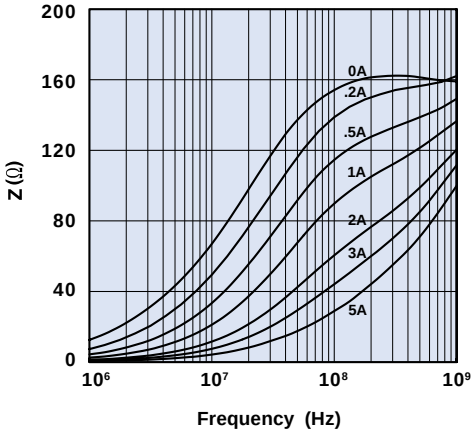

Figure 23B Impedance vs. frequency with dc bias as parameter for bead on lead 2743008112.

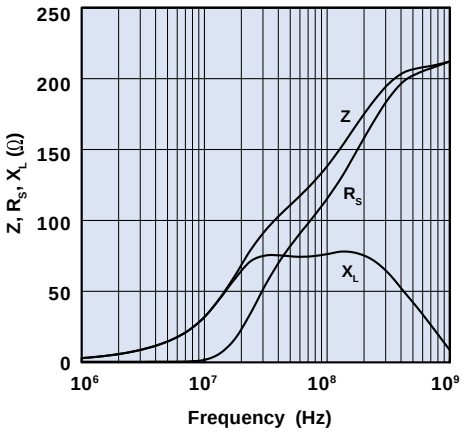

Figure 24A Impedance, reactance, and resistance vs. frequency for bead on lead 2761008112.

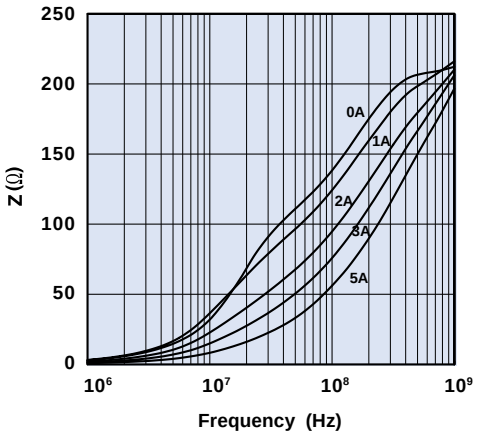

Figure 24B Impedance vs. frequency with dc bias as parameter for bead on lead 2761008112.

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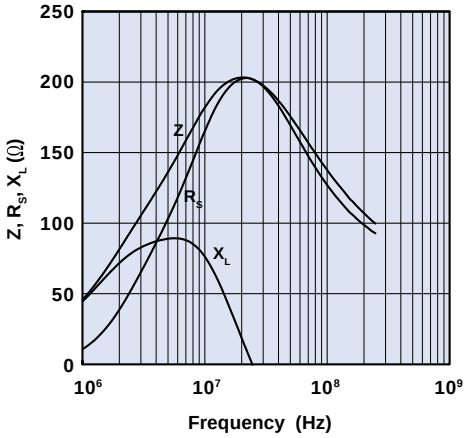

Figure 25A Impedance, reactance, and resistance vs. frequency for bead on lead 2773009112.

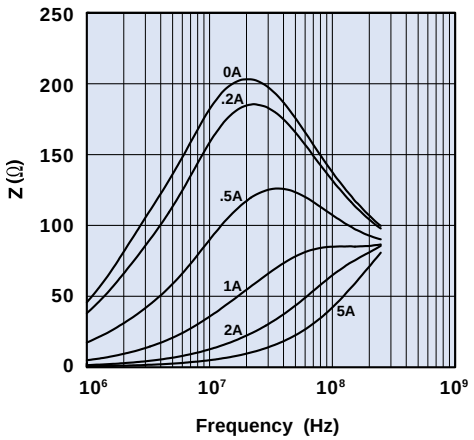

Figure 25B Impedance vs. frequency with dc bias as parameter for bead on lead 2773009112.

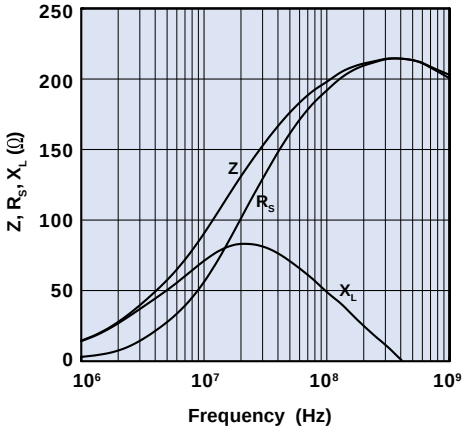

Figure 26A Impedance, reactance, and resistance vs. frequency for bead on lead 2743009112.

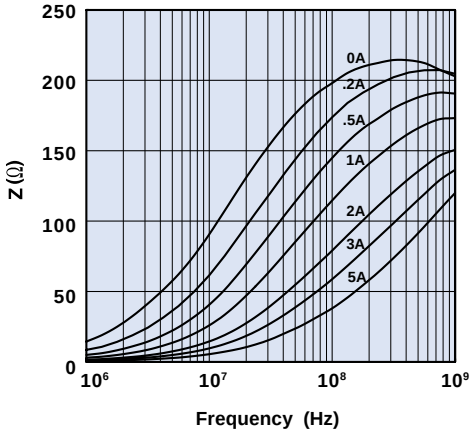

Figure 26B Impedance vs. frequency with dc bias as parameter for bead on lead 2743009112.

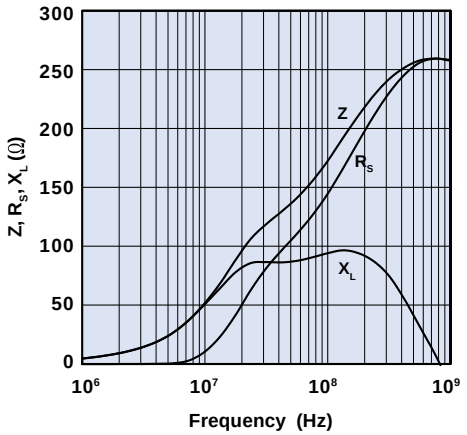

Figure 27A Impedance, reactance, and resistance vs. frequency for bead on lead 2761009112.

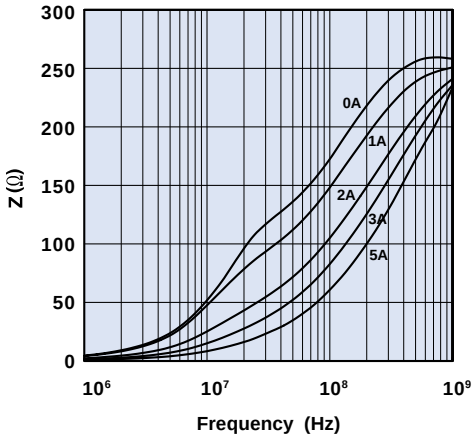

Figure 27B Impedance vs. frequency with dc bias as parameter for bead on lead 2761009112.

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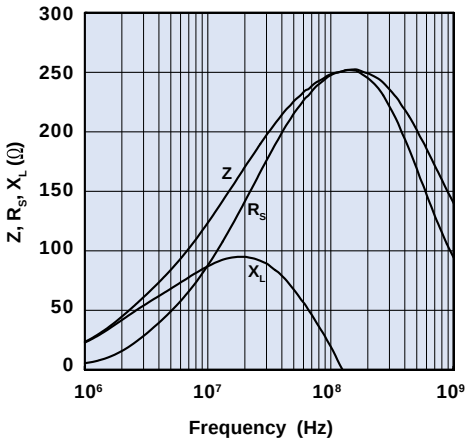

Figure 28A Impedance, reactance, and resistance vs. frequency for bead on lead 2743012201.

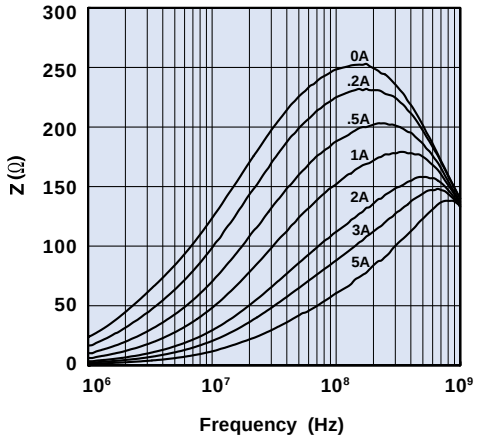

Figure 28B Impedance vs. frequency with dc bias as parameter for bead on lead 2743012201.

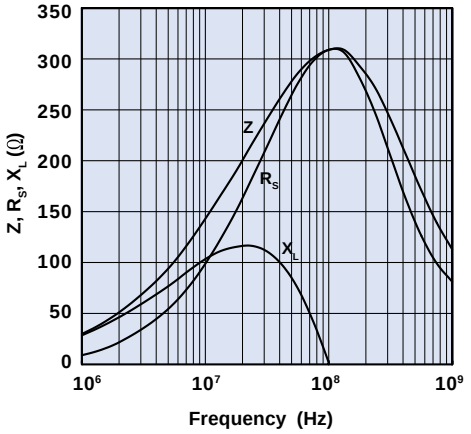

Figure 29A Impedance, reactance, and resistance vs. frequency for bead on lead 2743013211.

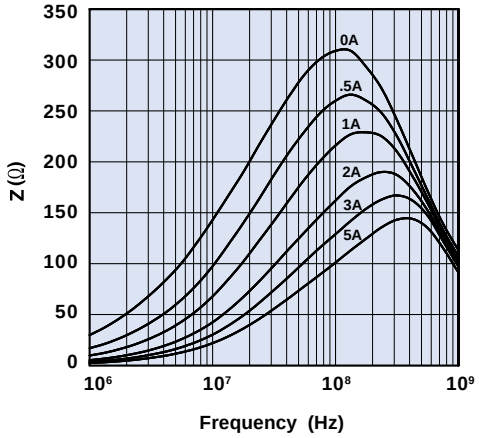

Figure 29B Impedance vs. frequency with dc bias as parameter for bead on lead 2743013211.

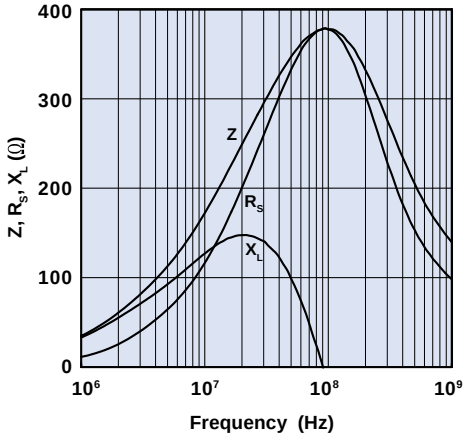

Figure 30A Impedance, reactance, and resistance vs. frequency for bead on lead 2743014221.

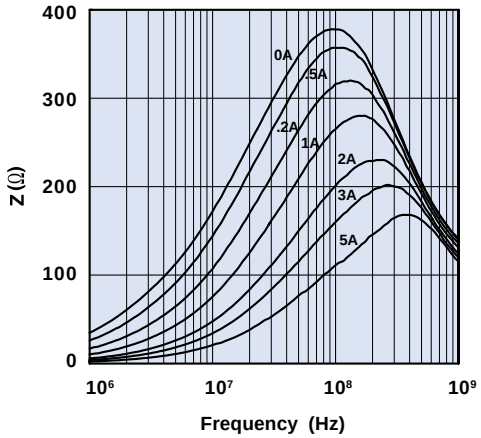

Figure 30B Impedance vs. frequency with dc bias as parameter for bead on lead 2743014221.

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