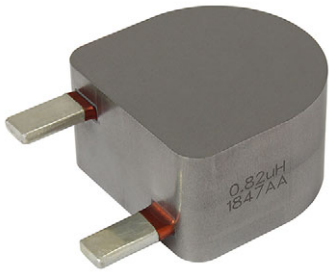
Automotive, High Current, Radial, Through-Hole Inductor, High Temperature (155 °C)



FEATURES

- High temperature rating, up to 155 °C
- 38.1 mm x 38.1 mm x 21.89 mm size
- Improved core material for 20 % reduction in core loss from previous IHXL-5A models
- Metal alloy construction for excellent magnetic shielding and high thermal conductivity to minimize hot spots
- Flat surface for mounting heat sink or active cooling cold plate
- Handles high transient current spikes without saturation
- Custom solutions available for termination style (swaged, 90° bend, SMD, etc.), inductance, current, temperature, and voltage rating
- AEC-Q200 qualified
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

AUTOMOTIVE GRADE

Pb-free

RoHS COMPLIANT

HALOGEN FREE

GREEN (5-2008)

LINKS TO ADDITIONAL RESOURCES

Product Page | 3D Models | SPICE Models | Calculators

MECHANICAL SPECIFICATIONS

- Terminations: solder dipped pure tin
- Weight: 182 g

APPLICATIONS

- Automotive high current battery charging
- Brushless DC motor (BLDC)
- DC-Link filter
- Differential mode choke
- Boost power factor correction choke
- Solar power / wind power applications

STANDARD ELECTRICAL SPECIFICATIONS

PART NUMBER	L_0 INDUCTANCE ± 20 % AT 100 kHz, 0.25 V, 0 A (µH)	DCR 25 °C (mΩ)		HEAT RATING CURRENT DC TYP. (1) (A)		SATURATION CURRENT DC TYP. (2) (A)		SRF TYP. (MHz)
		TYP.	MAX.	40 °C RISE	80 °C RISE	20 % DROP	30 % DROP	
IHXL1500VZEBR68M3A	0.68	0.12	0.13	180	280	235	335	37.8
IHXL1500VZEBR82M3A	0.82	0.17	0.18	159	248	230	330	27.9
IHXL1500VZEB1R5M3A	1.5	0.25	0.26	146	220	138	193	17.2
IHXL1500VZEB2R2M3A	2.2	0.32	0.34	133	210	104	150	15.0
IHXL1500VZEB3R3M3A	3.3	0.40	0.42	111	170	87	124	12.4
IHXL1500VZEB5R6M3A	5.6	0.61	0.64	88	130	67	96	9.7
IHXL1500VZEB6R8M3A	6.8	0.79	0.83	60	95	64	94	8.7
IHXL1500VZEB100M3A	10	1.10	1.16	55	88	49	72	7.6

Notes

- All test data is referenced to 25 °C ambient
- Operating temperature range -55 °C to +155 °C
- The part temperature (ambient + temp. rise) should not exceed 155 °C under worst case operating conditions. Circuit design, component placement, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application
- Rated operating voltage, across inductor = 150 V

(1) DC current (A) that will cause an approximate ΔT of +40 °C and +80 °C, respectively

(2) DC current (A) that will cause L_0 to drop approximately 20 % and 30 %, respectively

For technical questions, contact: magnetics@vishay.com

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DESCRIPTION

IHXL1500VZ-3A	0.68 µH	± 20 %	BULK / TRAY PACKAGING	e3
MODEL	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	PACKAGE CODE	JEDEC® LEAD (Pb)-FREE STANDARD

GLOBAL PART NUMBER

I H X L	1 5 0 0 V Z	E B	R 6 8	M	3 A
PRODUCT FAMILY	SIZE	PACKAGE CODE	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	SERIES
		EB = tray pack 50 pcs/box	**R68** = 0.68 µH	**M** = ± 20 %	

DIMENSIONS in inches [millimeters]

Figure A

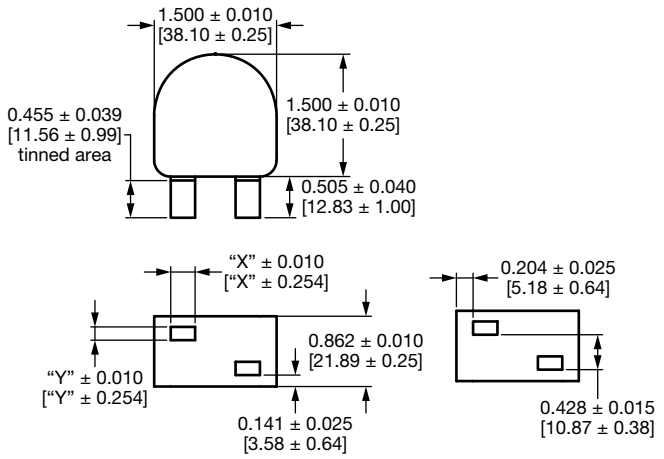
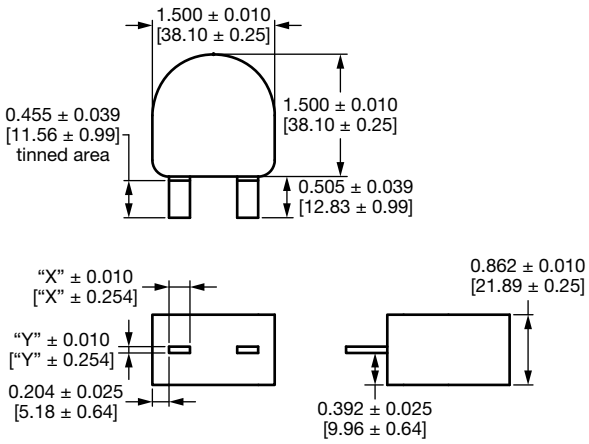


Figure B

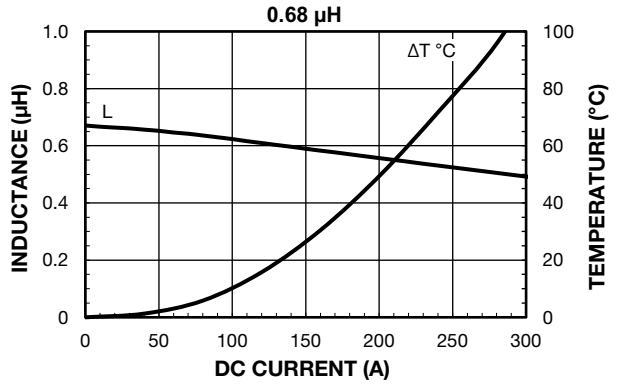


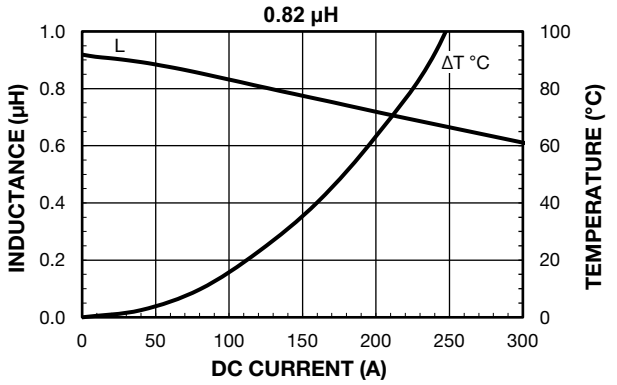
VALUE	X - LEAD WIDTH	Y - LEAD THICKNESS	FIGURE
0.68	0.298 [7.34]	0.162 [4.11]	A
0.82	0.253 [6.43]	0.102 [2.59]	A
1.5	0.253 [6.43]	0.102 [2.59]	A
2.2	0.253 [6.43]	0.102 [2.59]	A
3.3	0.253 [6.43]	0.102 [2.59]	A
5.6	0.253 [6.43]	0.087 [2.21]	B
6.8	0.253 [6.43]	0.071 [1.80]	B
10	0.253 [6.43]	0.059 [1.50]	B

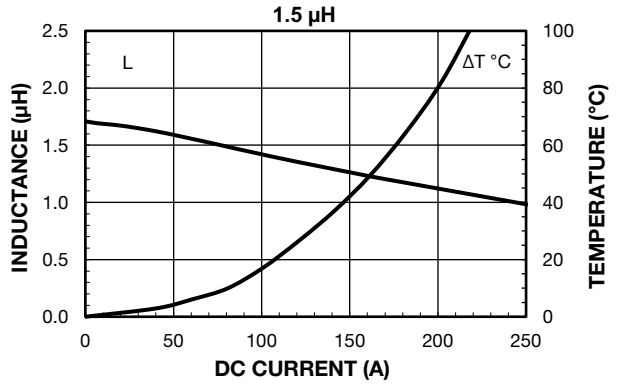
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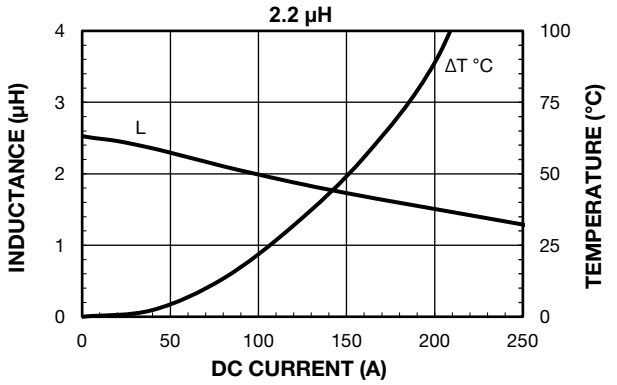
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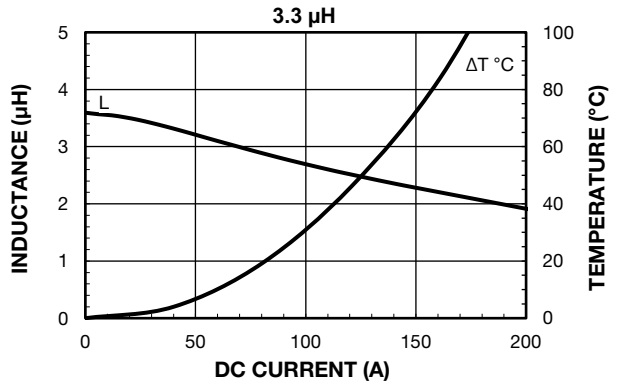
PERFORMANCE GRAPHS: INDUCTANCE VS. CURRENT

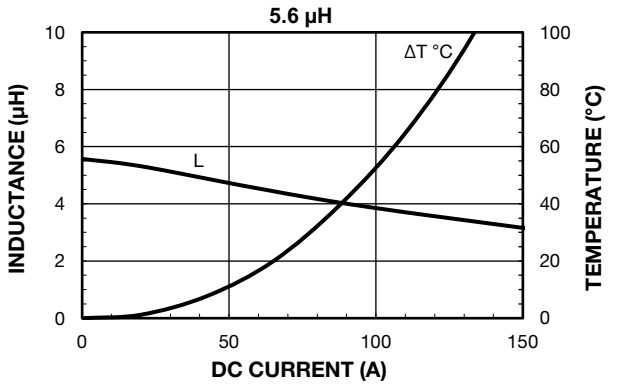


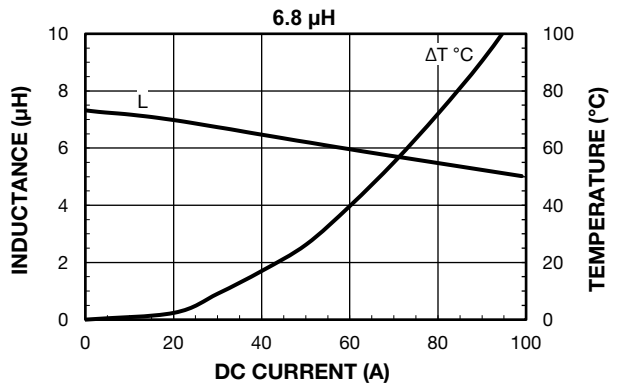


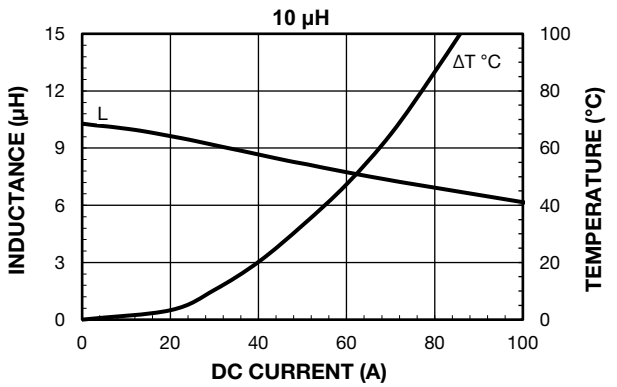








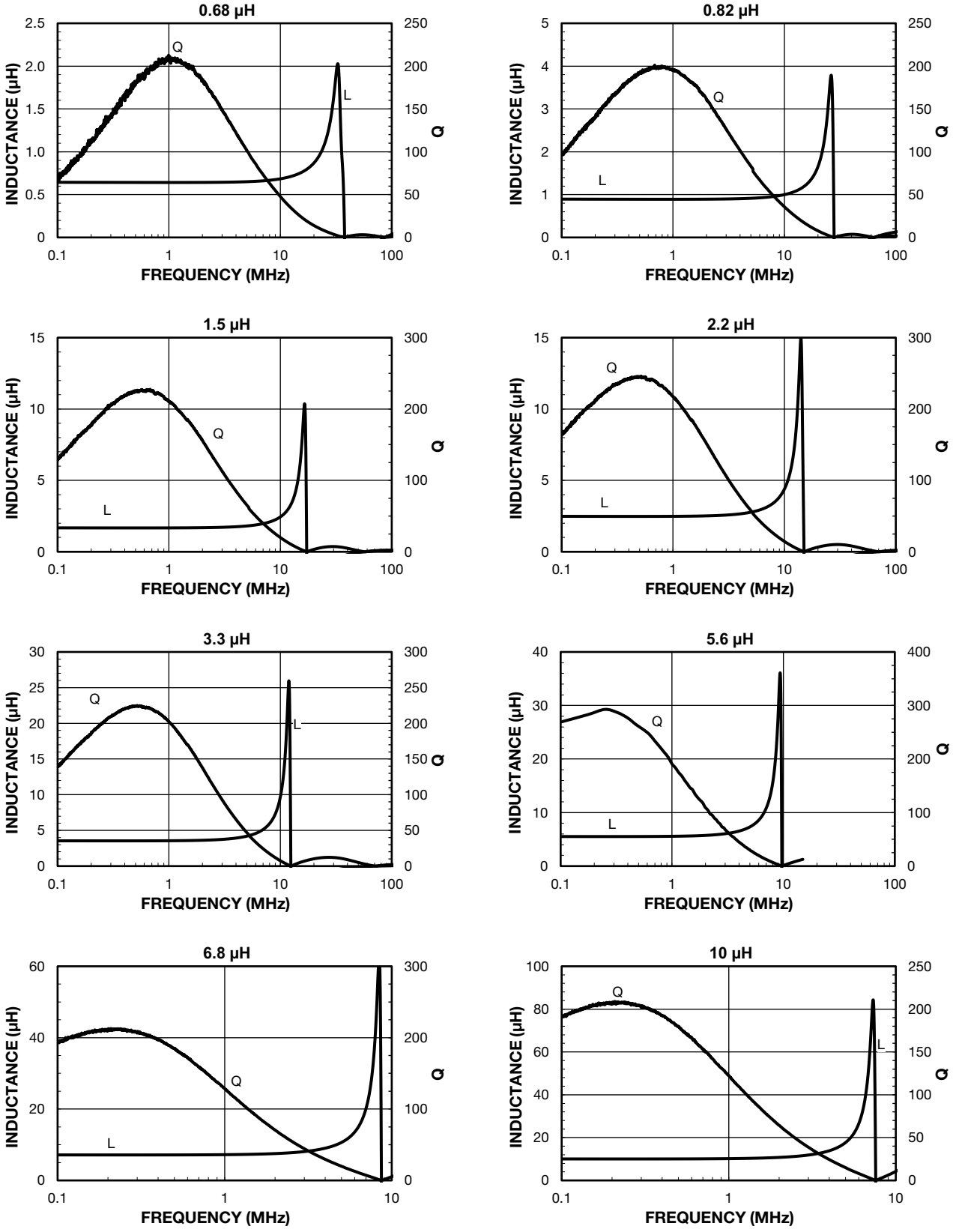




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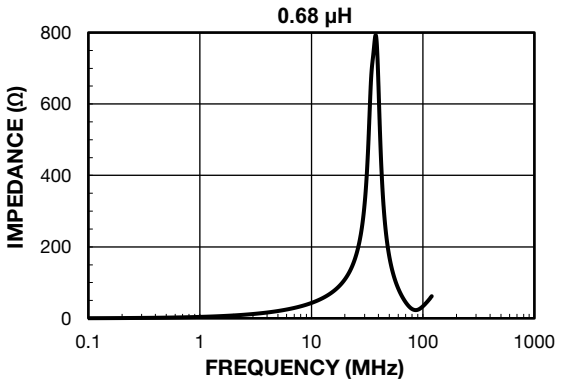
PERFORMANCE GRAPHS: INDUCTANCE AND Q VS. FREQUENCY

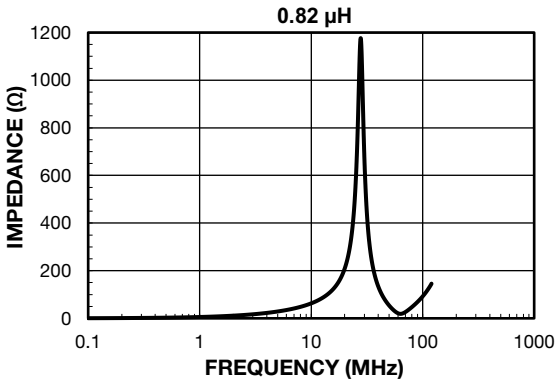


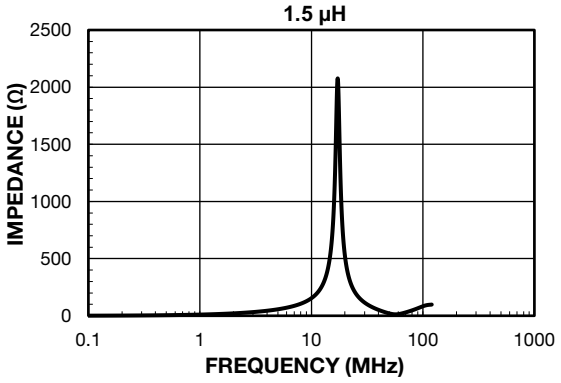
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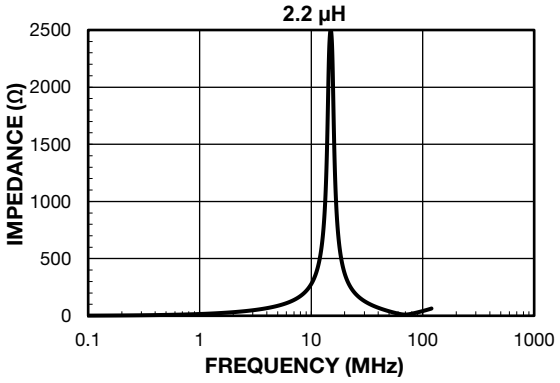
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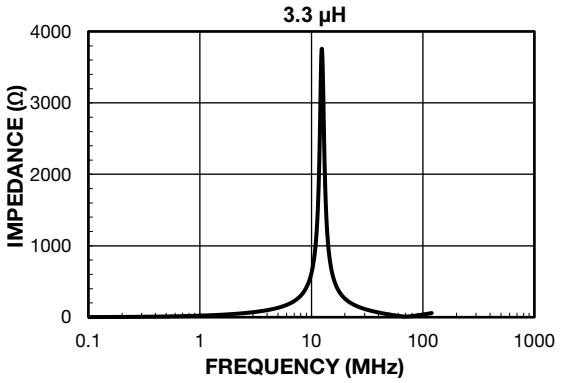
PERFORMANCE GRAPHS: IMPEDANCE VS. FREQUENCY

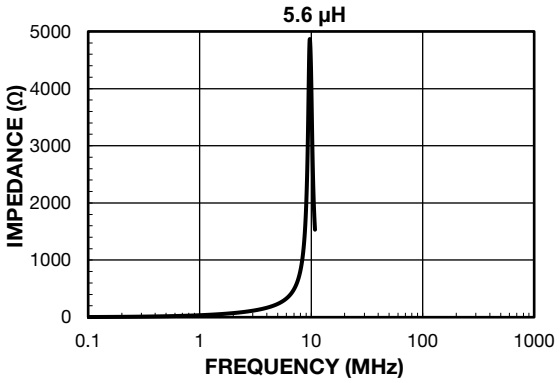


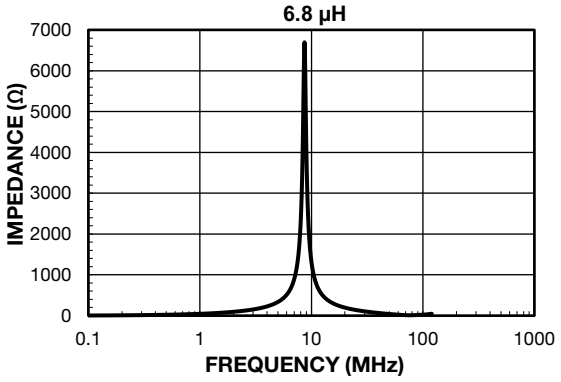


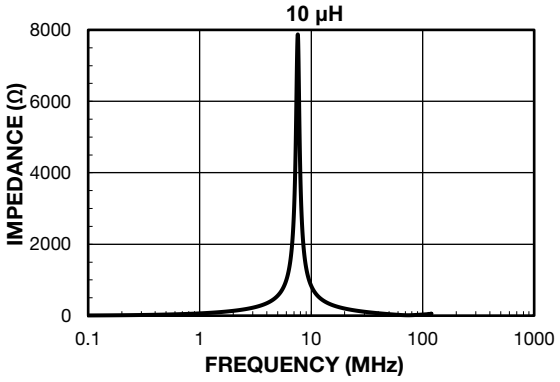












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