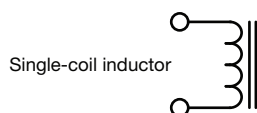
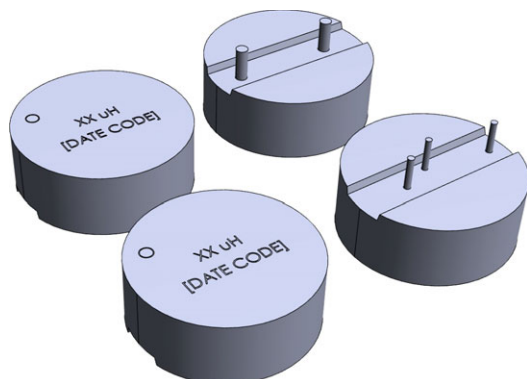


High Current, Radial, Through-Hole Power Inductor



Single-coil inductor

FEATURES

- Magnetically shielded, metal alloy construction
- Size: 28.575 mm (dia.) x 10.744 mm
- Radial through-hole termination (THT) with third support lead for added mounting stability (for 68 μ H and higher)
- Flat surface for heat sink mounting
- Coil orientation mark for consistent EMI performance (dot indicates inside start lead)
- High temperature up to 155 °C
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912



RoHS
COMPLIANT
HALOGEN
FREE
GREEN
(5-2008)

APPLICATIONS

- 48 V / 12 V bi-directional converters
- DC/DC converters using GaN FETs
- Noise suppression for motors

LINKS TO ADDITIONAL RESOURCES


[Product Page](#)

[Calculators](#)

STANDARD ELECTRICAL SPECIFICATIONS

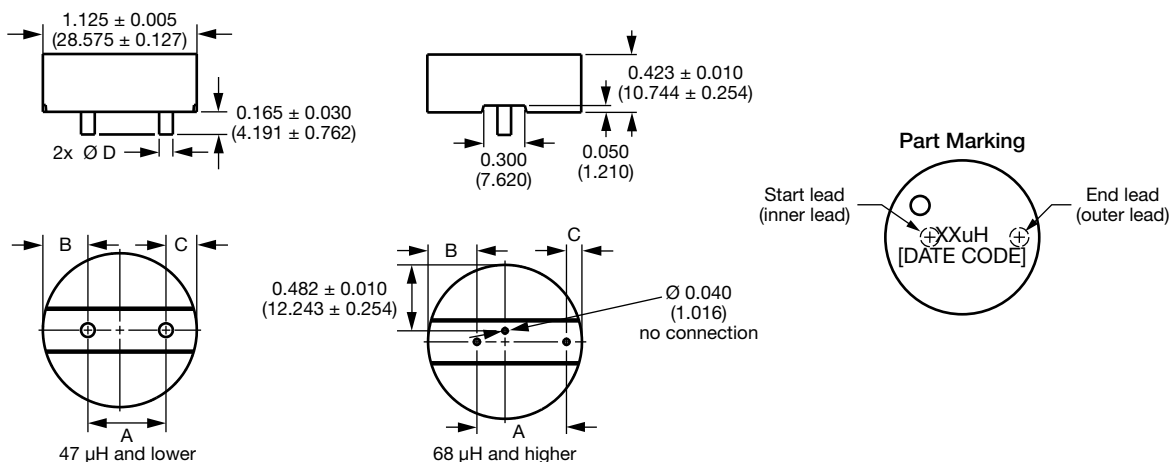
PART NUMBER	L ₀ INDUCTANCE $\pm 20\%$ AT 100 kHz, 0.25 V, 0 A (μ H)	DCR TYP. 25 °C (m Ω)	DCR MAX. 25 °C (m Ω)	HEAT RATING CURRENT DC TYP. (A) ⁽¹⁾	SATURATION CURRENT DC TYP. (A) ⁽²⁾		SRF TYP. (MHz)
					20 % DROP	30 % DROP	
ITHH1125KZEBR47M51	0.47	0.26	0.30	125	112	135	57.25
ITHH1125KZEB1R0M51	1.0	0.43	0.50	90	65	100	29.30
ITHH1125KZEB2R2M51	2.2	0.70	0.77	72	64	90	17.25
ITHH1125KZEB3R3M51	3.3	1.40	1.50	57	62	89	15.8
ITHH1125KZEB4R7M51	4.7	1.70	1.82	50	52	75	11.36
ITHH1125KZEB6R8M51	6.8	1.84	1.97	44.5	44	55	9.35
ITHH1125KZEB8R2M51	8.2	2.82	3.00	34.5	32	35	9.24
ITHH1125KZEB100M51	10	3.20	3.64	33	30	32	7.76
ITHH1125KZEB150M51	15	5.80	6.20	18.5	16	25	6.70
ITHH1125KZEB220M51	22	6.39	6.83	21.0	23	29	5.61
ITHH1125KZEB330M51	33	10.6	11.3	15.9	18	26	4.20
ITHH1125KZEB470M51	47	13.2	14.6	14.0	16.2	24	2.99
ITHH1125KZEB680M51	68	25.6	27.4	10.5	9.6	13	2.95
ITHH1125KZEB101M51	100	30.7	32.2	8.8	6.0	9.0	2.04

Notes

- All test data is referenced to 25 °C ambient
- Operating temperature range -55 °C to +155 °C
- Operating voltage rating (across inductor) = 100 V
- 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

⁽¹⁾ DC current (A) that will cause an approximate ΔT of 40 °C

⁽²⁾ DC current (A) that will cause L₀ to drop approximately 20 % and 30 %, respectively

DIMENSIONS in inches [millimeters]


VALUE	A ± 0.010 (± 0.254)	B ± 0.010 (± 0.254)	C ± 0.010 (± 0.254)	D ± 0.010 (± 0.254)
0.47 µH	0.579 (14.707)	0.273 (6.934)	0.273 (6.934)	0.130 (3.302)
1.0 µH	0.569 (14.453)	0.329 (8.357)	0.225 (5.715)	0.100 (2.540)
2.2 µH	0.679 (17.247)	0.273 (6.934)	0.169 (4.293)	0.100 (2.540)
3.3 µH	0.660 (16.764)	0.274 (6.960)	0.189 (4.801)	0.079 (2.007)
4.7 µH	0.660 (16.764)	0.274 (6.960)	0.189 (4.801)	0.079 (2.007)
6.8 µH	0.720 (18.288)	0.244 (6.198)	0.159 (4.039)	0.079 (2.007)
8.2 µH	0.702 (17.831)	0.248 (6.299)	0.172 (4.369)	0.071 (1.803)
10 µH	0.702 (17.831)	0.248 (6.299)	0.172 (4.369)	0.071 (1.803)
15 µH	0.586 (14.884)	0.372 (9.436)	0.168 (4.255)	0.063 (1.600)
22 µH	0.693 (17.602)	0.318 (8.077)	0.113 (2.870)	0.063 (1.600)
33 µH	0.702 (17.831)	0.292 (7.417)	0.128 (3.251)	0.050 (1.270)
47 µH	0.702 (17.831)	0.292 (7.417)	0.128 (3.251)	0.050 (1.270)
68 µH	0.653 (16.586)	0.357 (9.068)	0.113 (2.87)	0.044 (1.118)
100 µH	0.653 (16.586)	0.357 (9.068)	0.113 (2.87)	0.044 (1.118)

DESCRIPTION

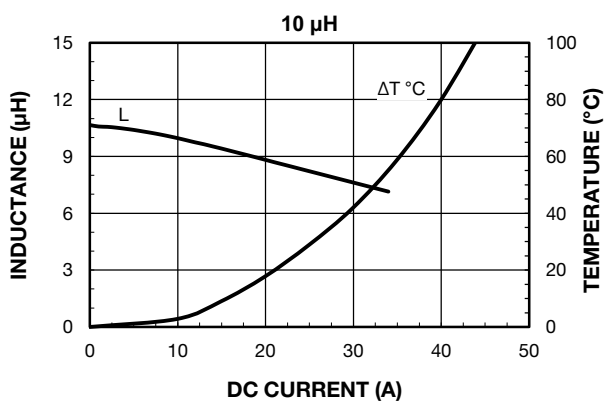
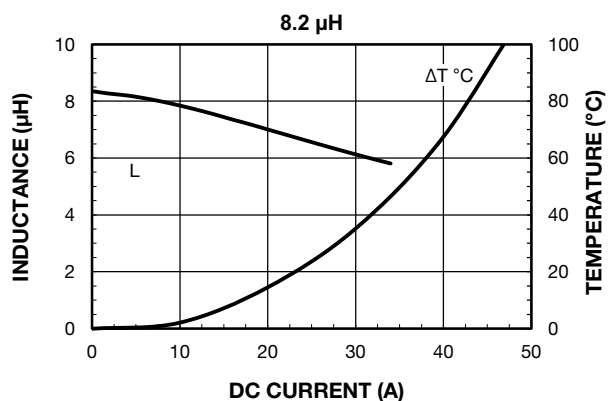
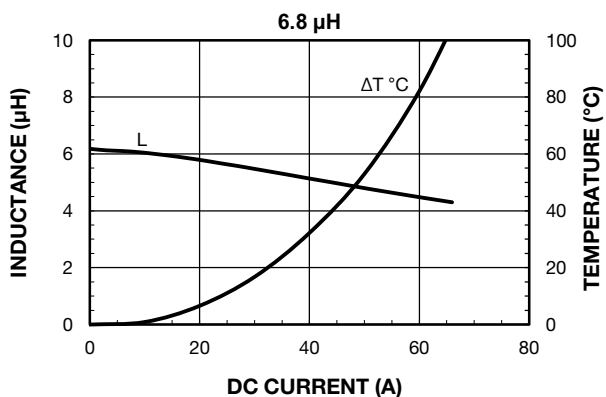
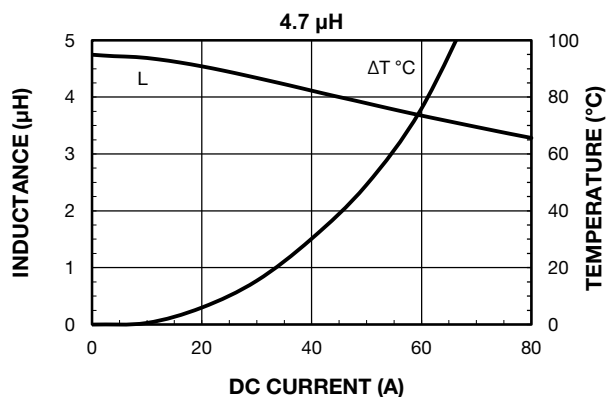
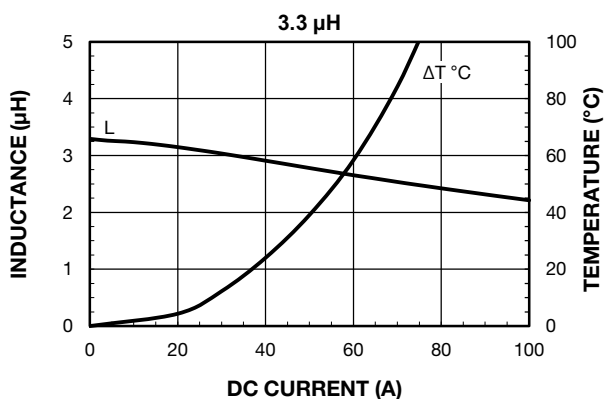
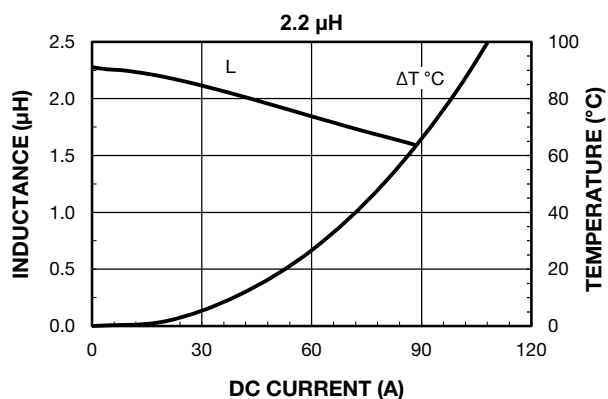
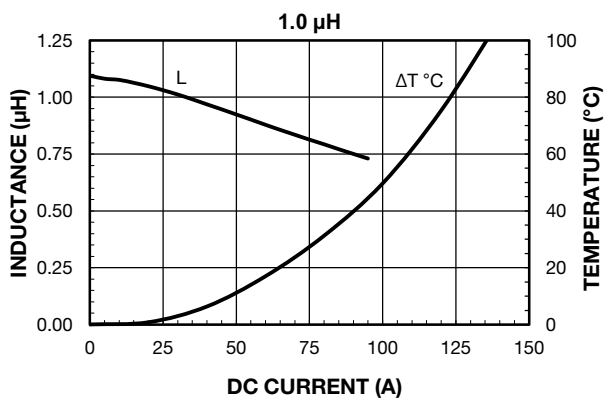
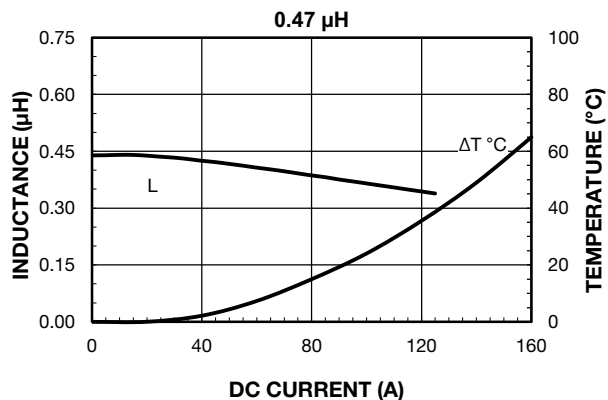
ITHH-1125KZ-51	4.7 µH	± 20 %
MODEL	INDUCTANCE VALUE	INDUCTANCE TOLERANCE

GLOBAL PART NUMBER

I H T H	1 1 2 5 K Z	E B	4 R 7	M	5 1
PRODUCT FAMILY	SIZE	PACKAGE CODE	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	SERIES
		EB = tray	4R7 = 4.7 µH	M = ± 20 %	

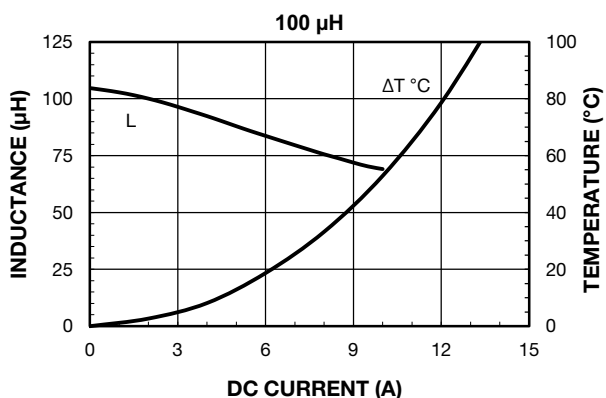
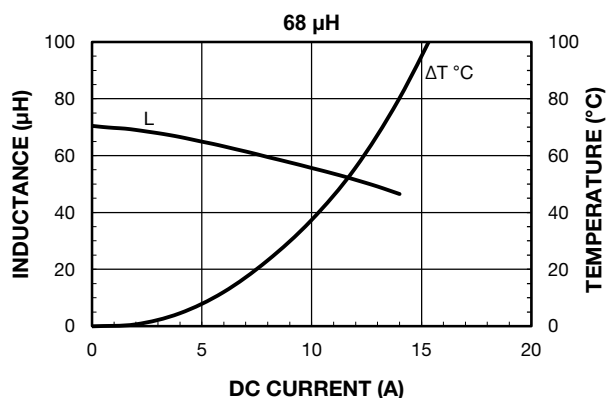
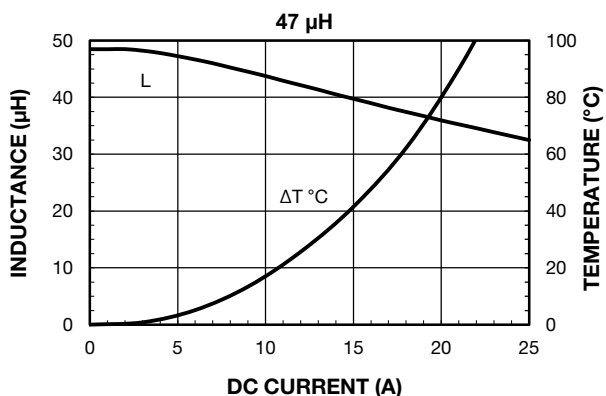
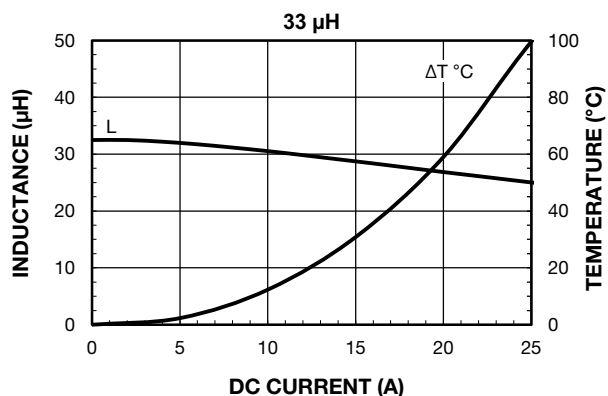
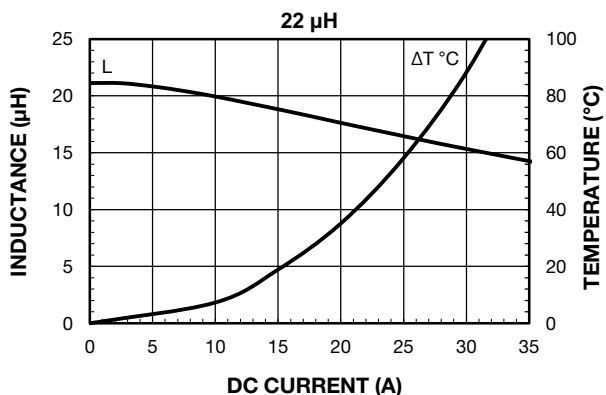
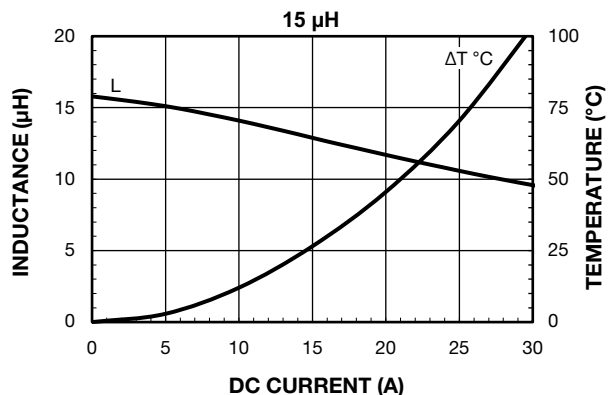


PERFORMANCE GRAPHS



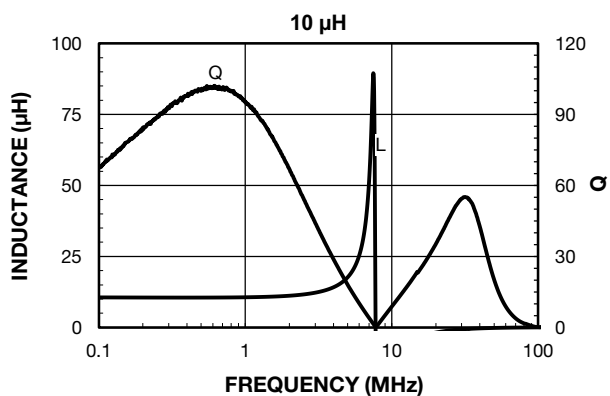
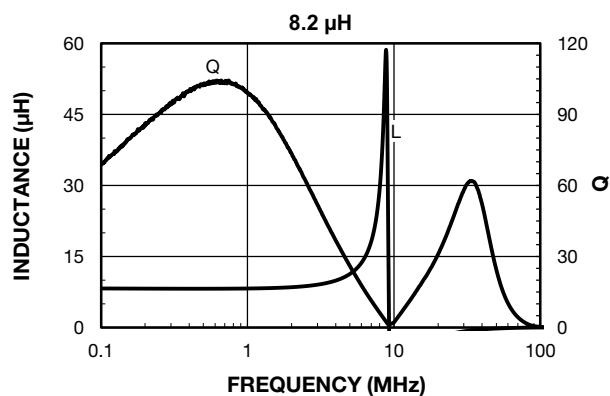
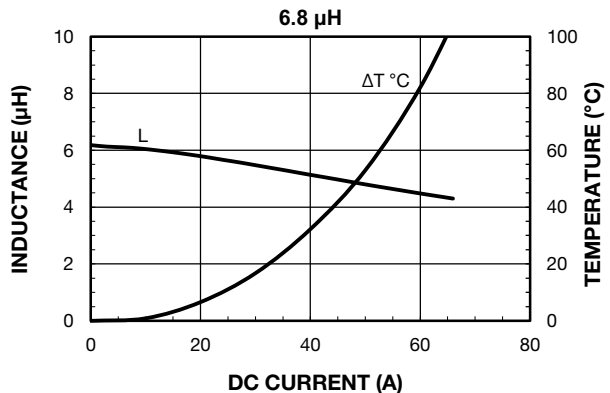
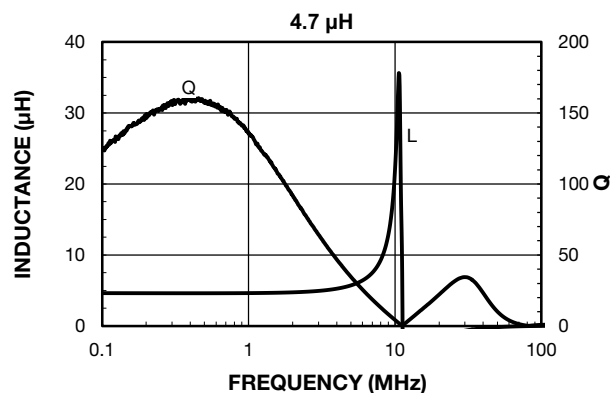
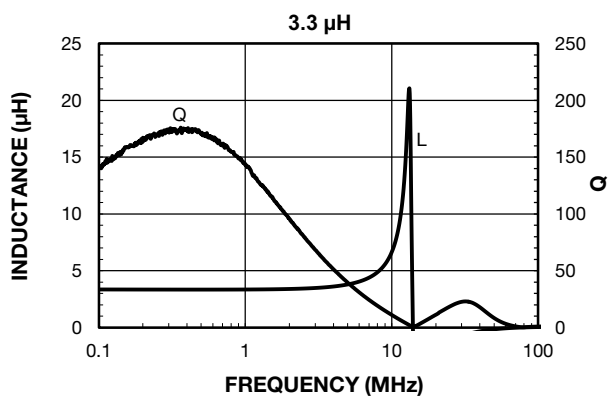
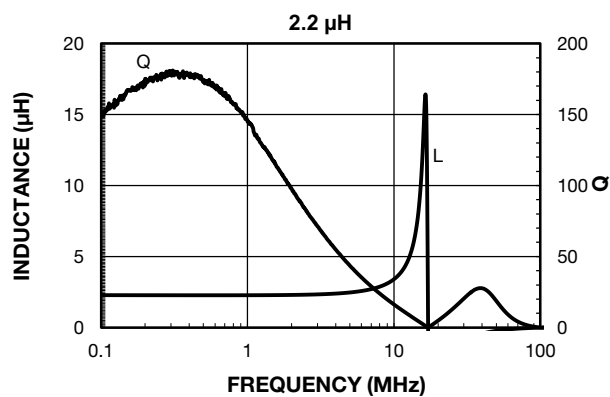
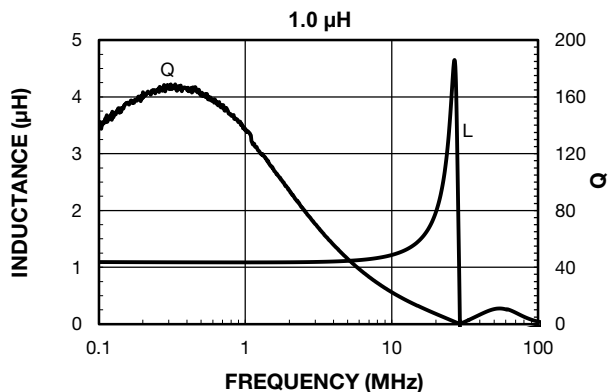
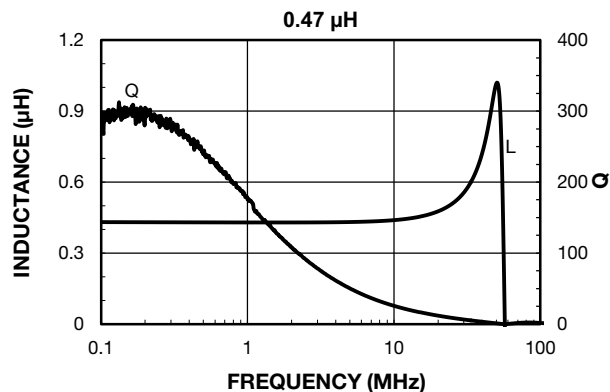


PERFORMANCE GRAPHS



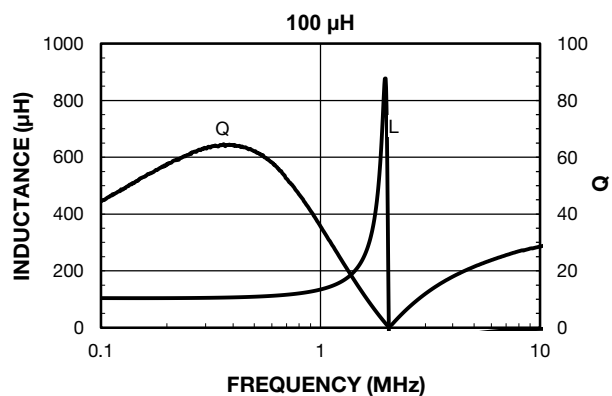
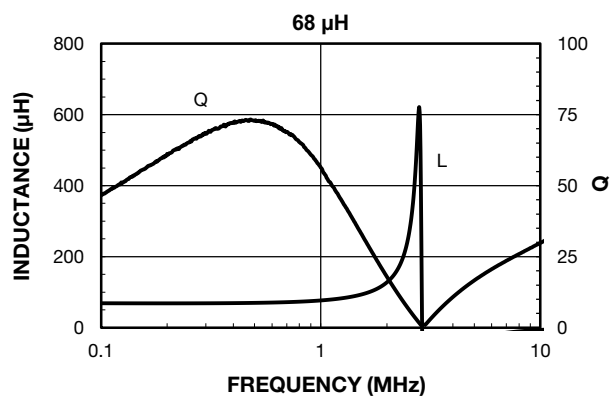
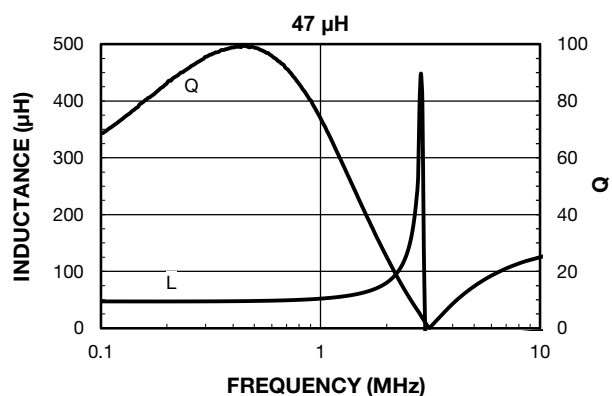
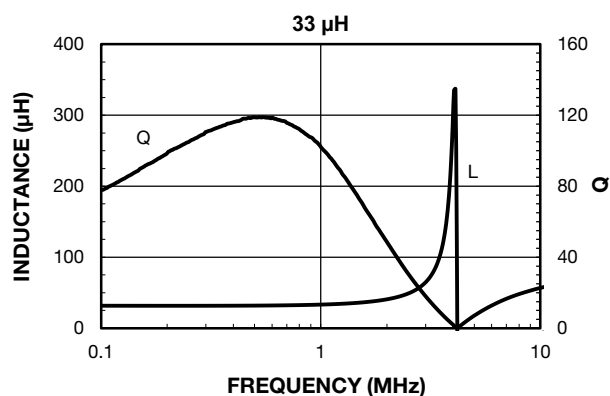
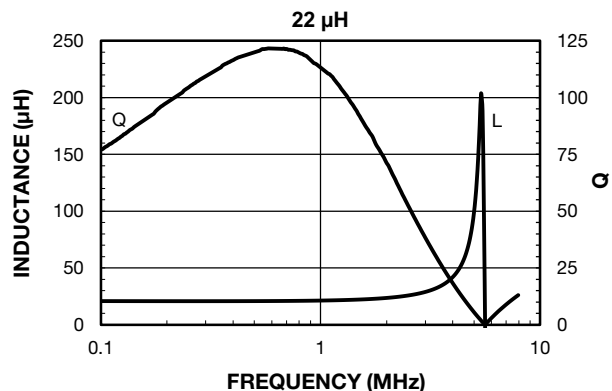
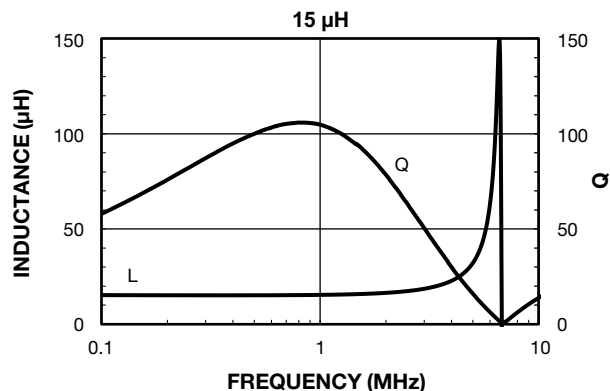


PERFORMANCE GRAPHS: INDUCTANCE AND Q VS. FREQUENCY





PERFORMANCE GRAPHS: INDUCTANCE AND Q VS. FREQUENCY





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