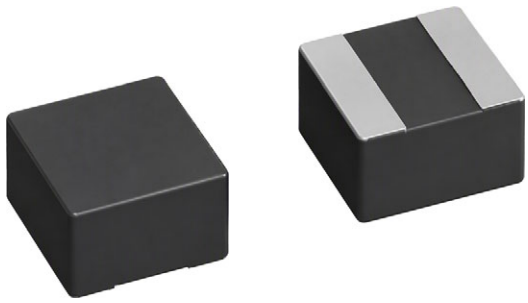
Commercial Power Inductor, Low DCR



FEATURES

- 3.0 mm x 3.0 mm footprint
- Available in three height profiles (1.2 mm, 1.5 mm, 2.0 mm)
- Magnetically shielded construction
- Handles high transient current spikes without saturation
- Bottom plated terminals allow for smaller pad layout for compact board spacing
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

Pb-free

RoHS COMPLIANT

HALOGEN FREE GREEN (5-2008)

LINKS TO ADDITIONAL RESOURCES

Product Page

APPLICATIONS

- SSD modules
- DC/DC converter for CPU
- Noise suppression and filtering
- Data networking and storage systems

STANDARD ELECTRICAL SPECIFICATIONS

PART NUMBER	L_0 INDUCTANCE ± 20 % AT 1 MHz, 1 V, 0 A (µH)	DCR TYP. 25 °C (mΩ)	DCR MAX. 25 °C (mΩ)	HEAT RATING CURRENT DC TYP. (A) (1)	SATURATION CURRENT DC TYP. (A)		SRF TYP. (MHz)
					20 % DROP (2)	30 % DROP (3)	
1.2 mm HEIGHT							
IHLL1212ABEZR10M1Z	0.10	8.0	9.6	11.5	15.0	16.0	120
IHLL1212ABEZR22M1Z	0.22	8.6	10.3	11.1	9.5	12.4	185
IHLL1212ABEZR33M1Z	0.33	10.8	12.9	9.9	8.9	11.6	140
IHLL1212ABEZR47M1Z	0.47	14.7	17.6	8.5	7.2	9.4	115
IHLL1212ABEZR56M1Z	0.56	16.8	19.8	8.0	6.9	9.0	110
IHLL1212ABEZR68M1Z	0.68	20.3	22.5	7.5	5.7	9.0	85
IHLL1212ABEZ1R0M1Z	1.0	29.4	33.8	6.1	5.1	6.7	66
IHLL1212ABEZ1R5M1Z	1.5	43.2	48.0	5.0	4.0	5.0	45
1.5 mm HEIGHT							
IHLL1212AEEZR22M1Z	0.22	8.6	10.3	11.1	11.0	14.0	202
IHLL1212AEEZR33M1Z	0.33	10.4	12.4	10.1	9.0	11.7	144
IHLL1212AEEZR47M1Z	0.47	11.4	14.5	9.7	8.1	10.6	102
IHLL1212AEEZR56M1Z	0.56	15.3	18.4	8.3	7.5	9.8	100
IHLL1212AEEZR68M1Z	0.68	16.6	19.8	8.0	6.8	8.8	97
IHLL1212AEEZR82M1Z	0.82	20.3	23.4	7.3	6.0	7.8	92
IHLL1212AEEZ1R0M1Z	1.0	26.6	29.7	6.5	5.8	7.5	74
IHLL1212AEEZ1R5M1Z	1.5	36.9	41.4	5.5	5.0	6.0	51

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STANDARD ELECTRICAL SPECIFICATIONS

PART NUMBER	L_0 INDUCTANCE ± 20 % AT 1 MHz, 1 V, 0 A (µH)	DCR TYP. 25 °C (mΩ)	DCR MAX. 25 °C (mΩ)	HEAT RATING CURRENT DC TYP. (A) (1)	SATURATION CURRENT DC TYP. (A)		SRF TYP. (MHz)
					20 % DROP (2)	30 % DROP (3)	
2.0 mm HEIGHT							
IHLL1212BZEZR10M1Z	0.10	7.2	8.0	12.0	13.5	22.0	120
IHLL1212BZEZR22M1Z	0.22	8.6	10.3	11.1	10.5	13.7	214
IHLL1212BZEZR36M1Z	0.36	10.4	12.4	10.1	10.0	13.0	161
IHLL1212BZEZR47M1Z	0.47	12.6	14.0	9.7	8.9	10.0	110
IHLL1212BZEZR56M1Z	0.56	11.7	14.9	9.2	8.4	10.9	90
IHLL1212BZEZR68M1Z	0.68	12.6	15.8	8.9	8.2	10.7	85
IHLL1212BZEZR88M1Z	0.88	14.0	16.7	8.7	8.0	10.4	65
IHLL1212BZEZ1R0M1Z	1.0	18.0	20.0	8.4	7.6	9.0	55
IHLL1212BZEZ1R2M1Z	1.2	20.7	23.4	7.3	6.8	8.8	50
IHLL1212BZEZ1R5M1Z	1.5	22.5	25.2	7.1	6.0	7.9	47
IHLL1212BZEZ2R2M1Z	2.2	36.0	40.5	5.7	5.3	6.9	35
IHLL1212BZEZ3R3M1Z	3.3	50.4	54.9	4.5	3.7	4.8	30

Notes

- All test data is referenced to 25 °C ambient
- Inductance test condition: 1 MHz, 1 V
- Operating temperature range -55 °C to +125 °C
- The part temperature (ambient + temp. rise) should not exceed 125 °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 L_0 to drop approximately 20 %
(3) DC current (A) that will cause L_0 to drop approximately 30 %

GLOBAL PART NUMBER

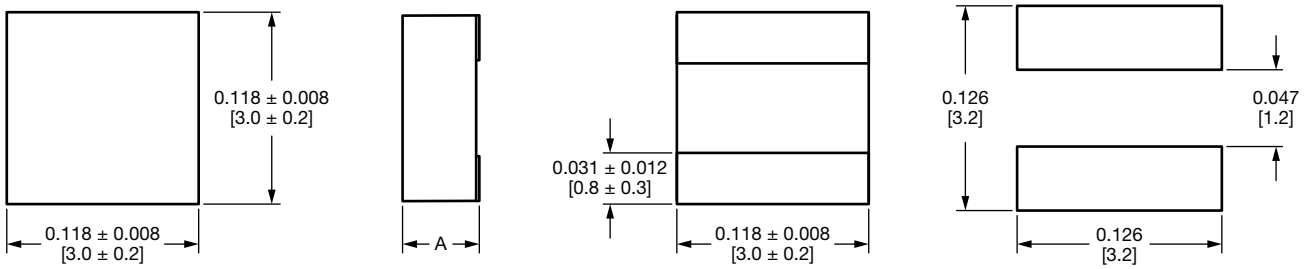
I H L L	1 2 1 2 B Z	E Z	1 R 5	M	1 Z
PRODUCT FAMILY	SIZE	PACKAGE CODE	INDUCTANCE VALUE	TOLERANCE	SERIES
		EZ = tape and reel, 3000 pieces/reel	**1R5** = 1.5 µH	**M** = ± 20 %	

DESCRIPTION

IHLL1212BZEZ-1Z	1.5 µH	± 20 %	EZ
MODEL	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	PACKAGE CODE

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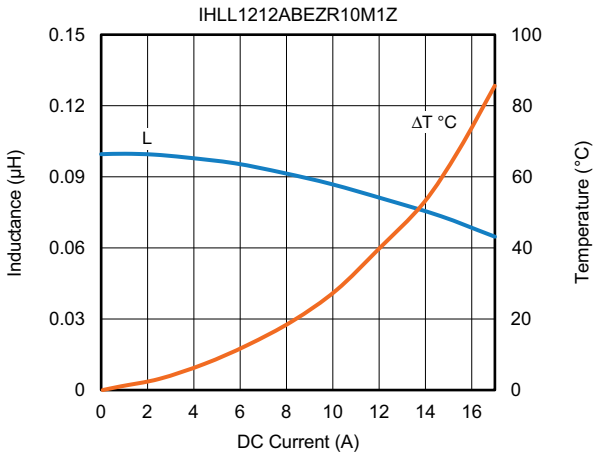
DIMENSIONS in inches [millimeters]

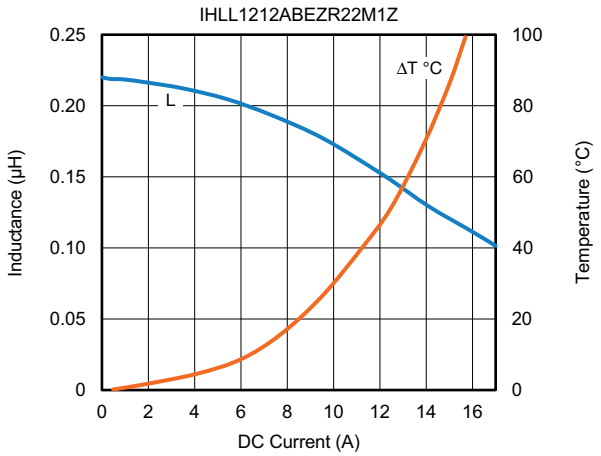


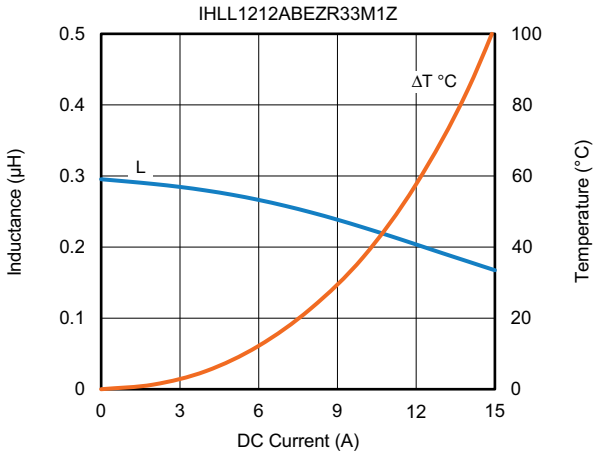
MODEL	A
IHLL1212AB-1Z	0.047 max. [1.2 max.]
IHLL1212AE-1Z	0.059 max. [1.5 max.]
IHLL1212BZ-1Z	0.079 max. [2.0 max.]

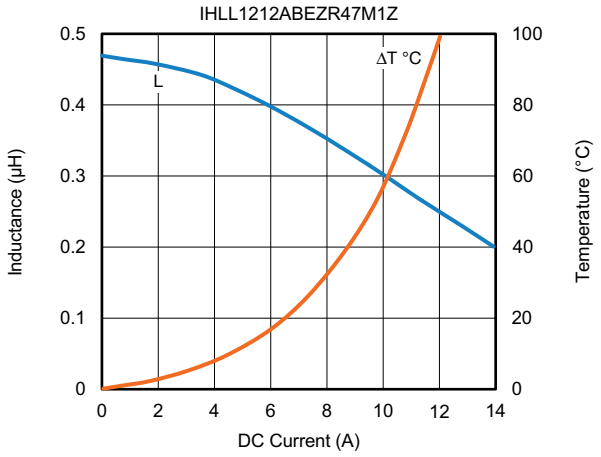
Typical pad layout

PERFORMANCE GRAPHS: INDUCTANCE VS. DC CURRENT





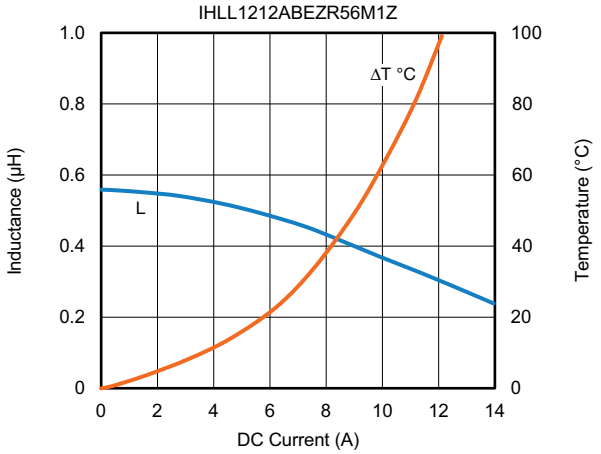


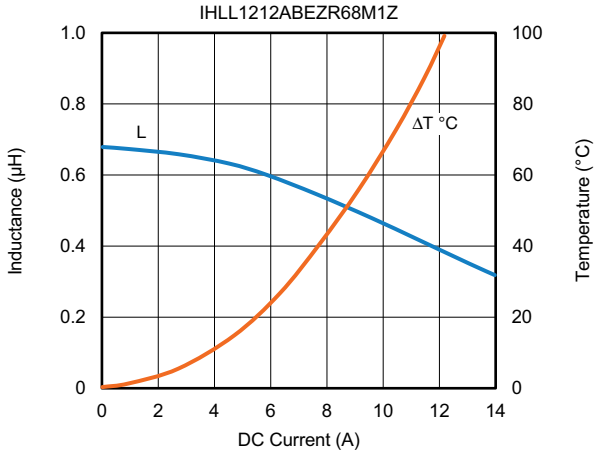


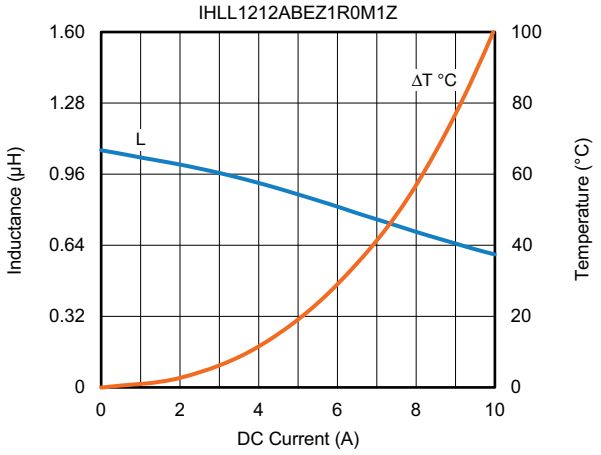
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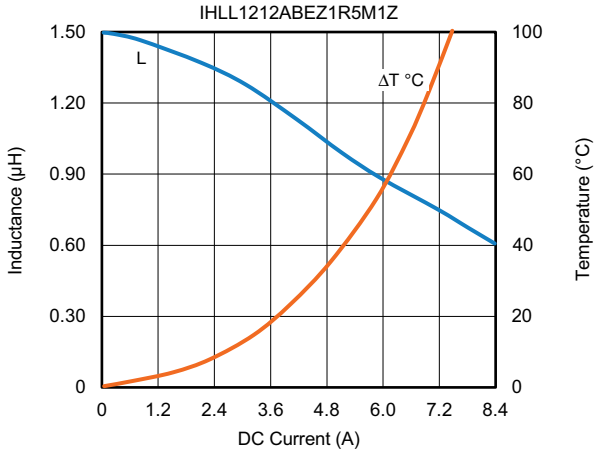
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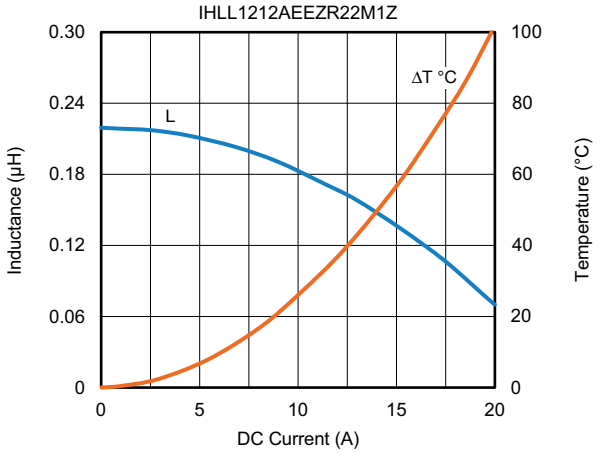
PERFORMANCE GRAPHS: INDUCTANCE VS. DC CURRENT

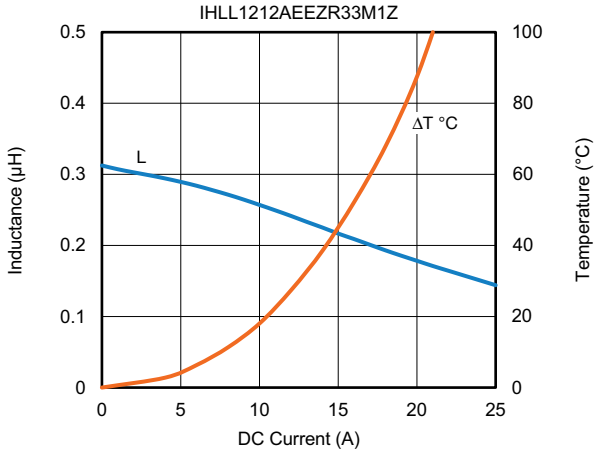








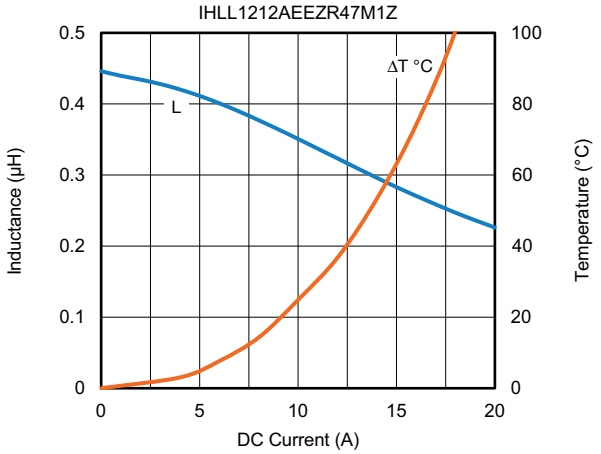


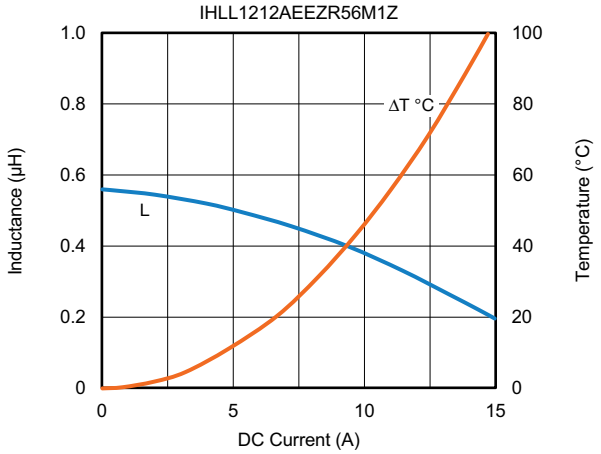


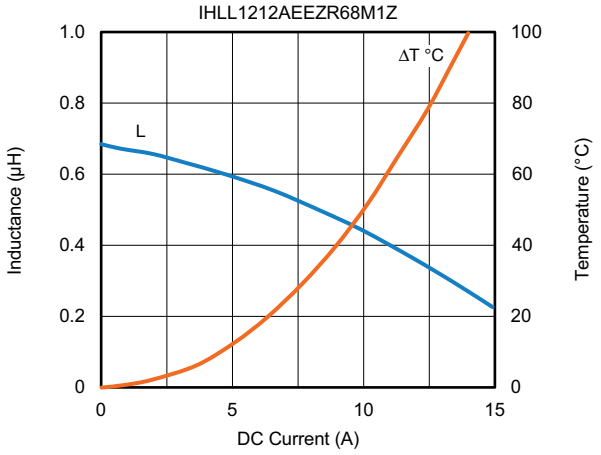
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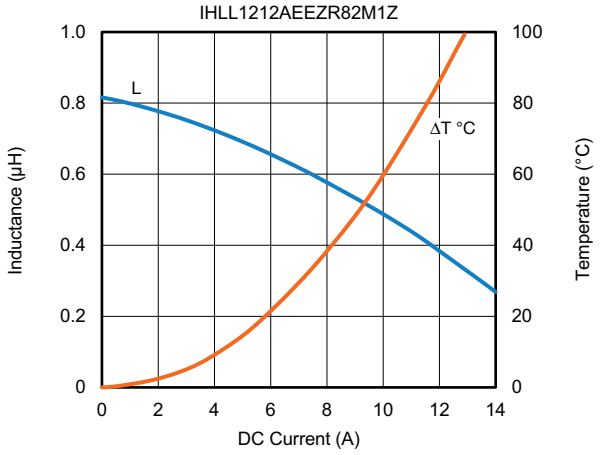
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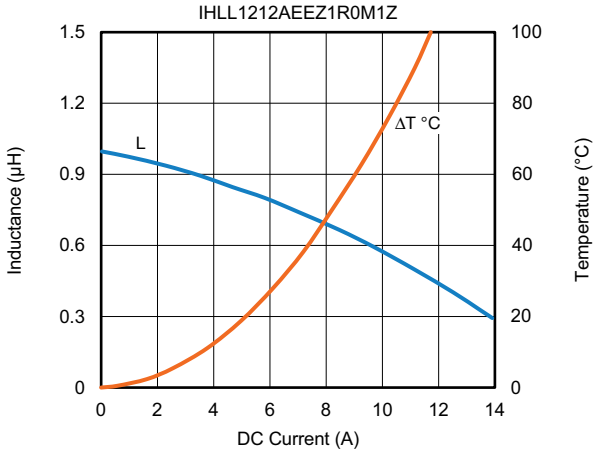
PERFORMANCE GRAPHS: INDUCTANCE VS. DC CURRENT

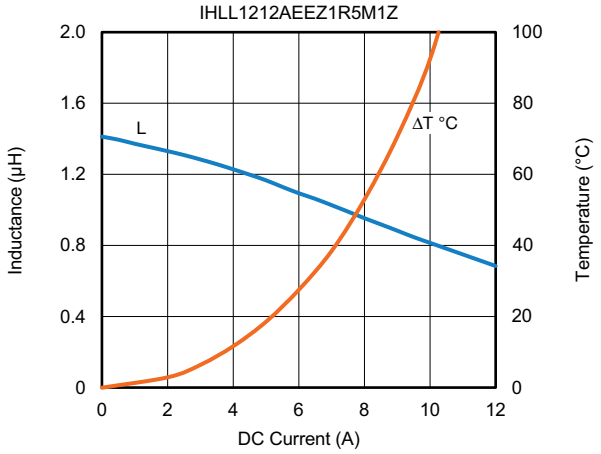






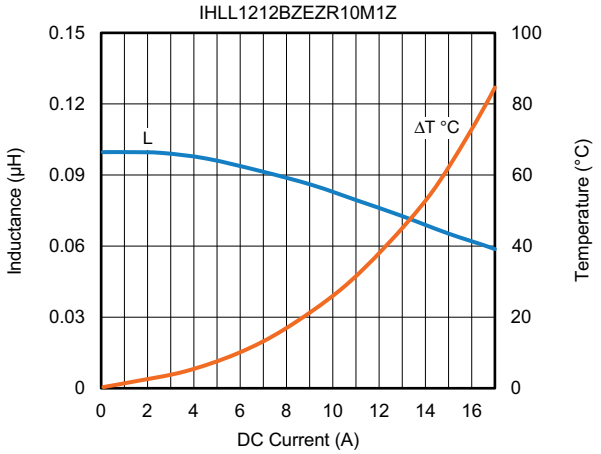


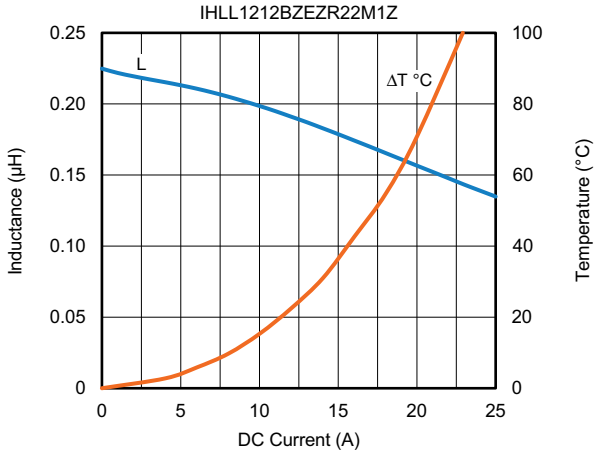


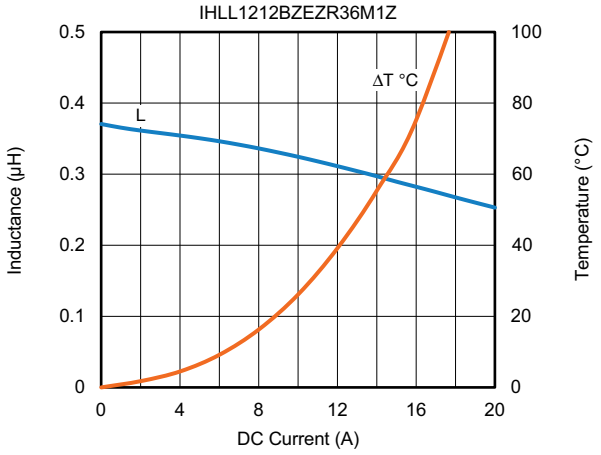


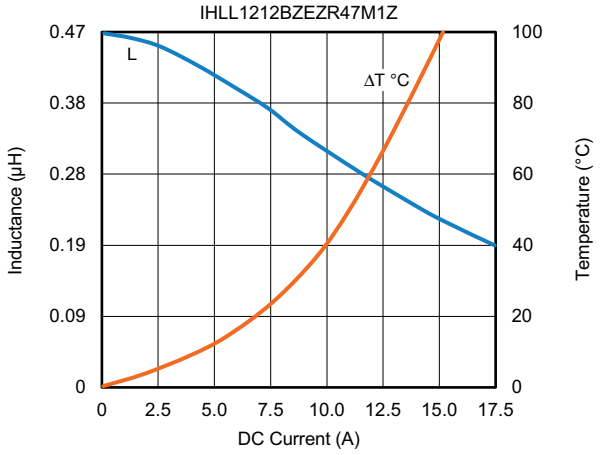
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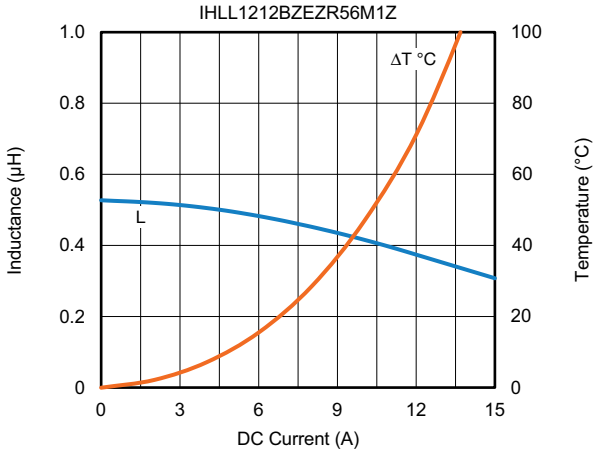
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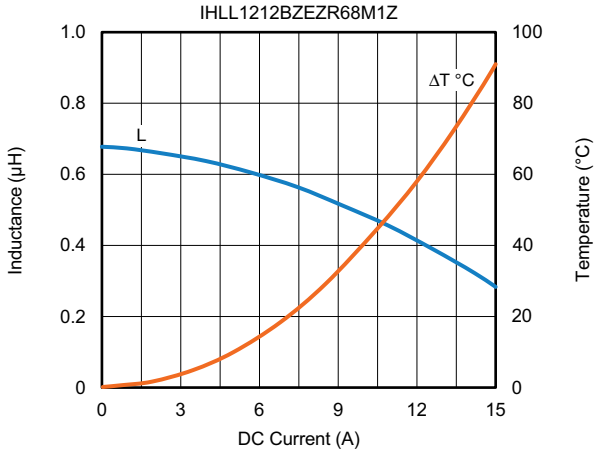








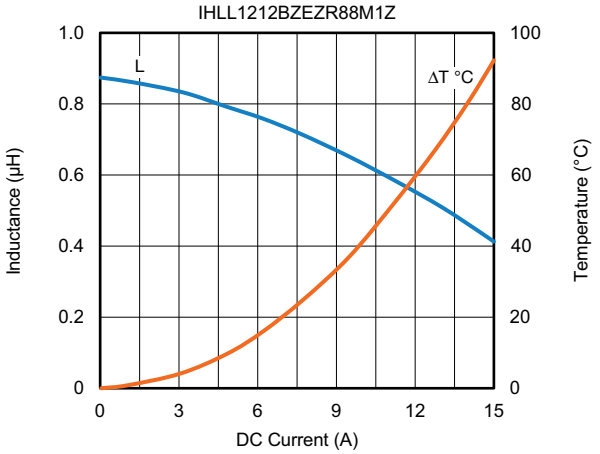


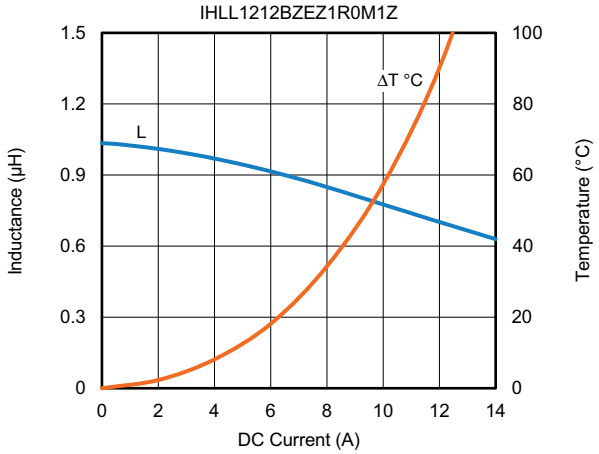


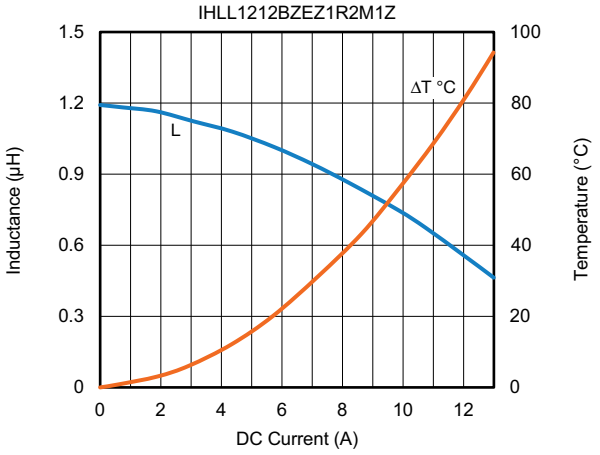
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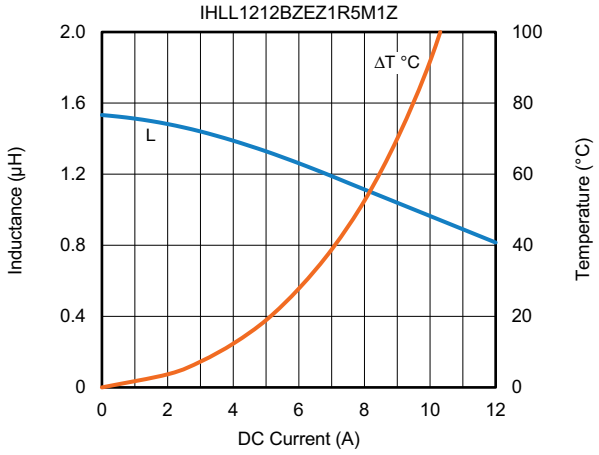
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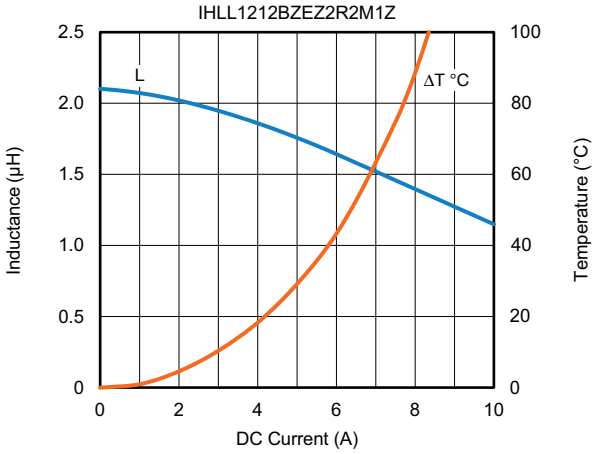
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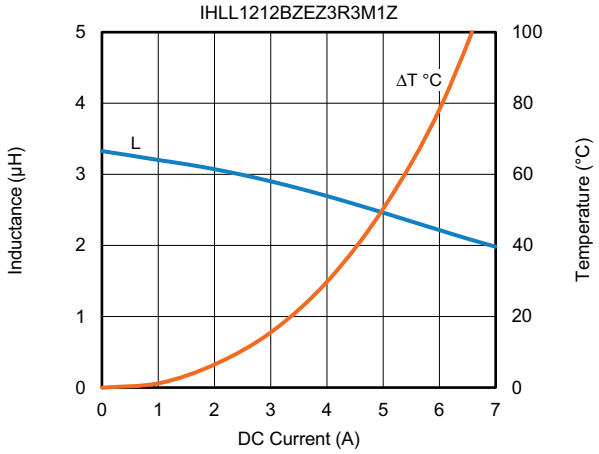










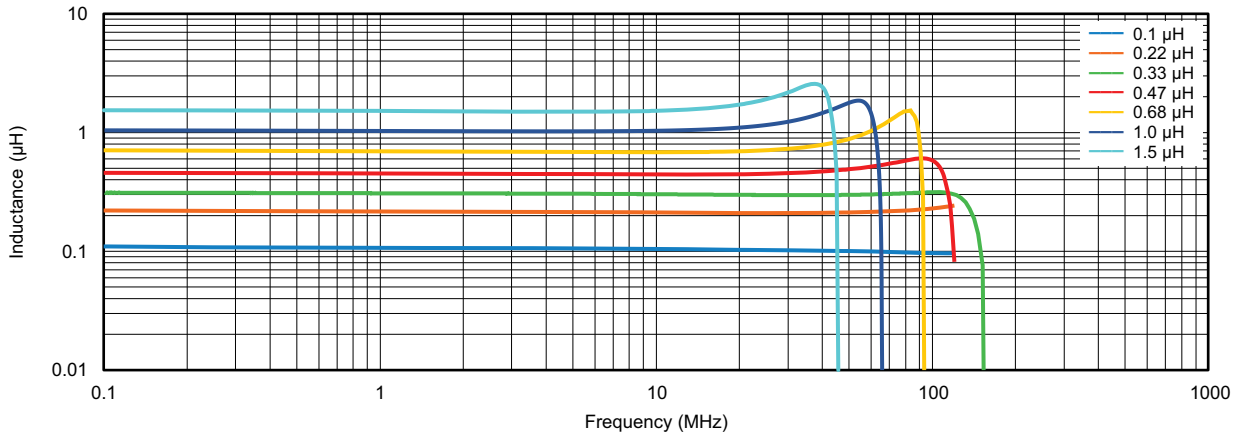


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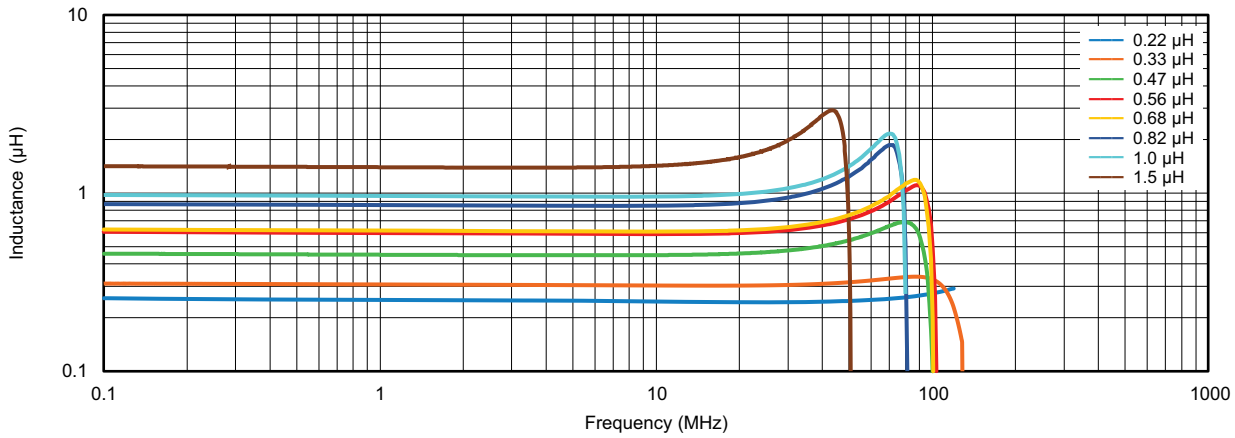
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PERFORMANCE GRAPHS: INDUCTANCE VS. FREQUENCY

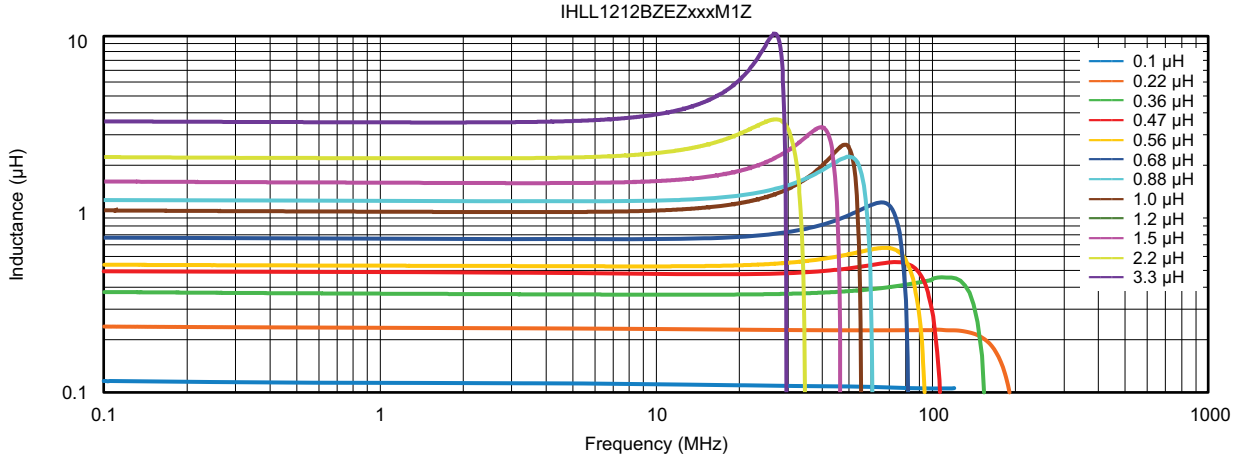
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