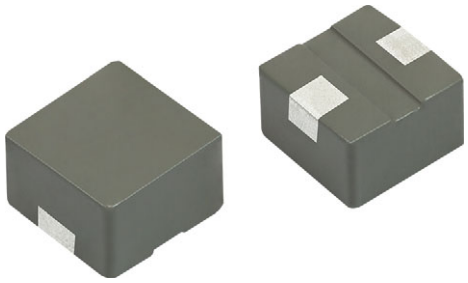
IHLP® Power Inductors, Low DCR Series



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
- 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

- Energy storage for low profile DC/DC converters
- Battery powered devices
- Power line noise suppression and filtering

MECHANICAL SPECIFICATIONS

- Terminations: pure tin electroplating over nickel underlayer over copper base
- Weight: 0.066 g (1.2 mm height), 0.087 g (1.5 mm height), 0.112 g (2.0 mm height)

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							
IHLP1212ABEZR10M1Z	0.1	8.0	9.6	11.5	15.0	16.0	120
IHLP1212ABEZR22M1Z	0.22	8.6	10.3	11.1	9.5	12.4	185
IHLP1212ABEZR33M1Z	0.33	10.8	12.9	9.9	8.9	11.6	140
IHLP1212ABEZR47M1Z	0.47	14.7	17.6	8.5	7.2	9.4	115
IHLP1212ABEZR56M1Z	0.56	16.8	19.8	8.0	6.9	9.0	110
IHLP1212ABEZR68M1Z	0.68	20.3	22.5	7.5	5.7	9.0	85
IHLP1212ABEZ1R0M1Z	1.0	29.4	33.8	6.1	5.1	6.7	66
1.5 mm HEIGHT							
IHLP1212AEEZR22M1Z	0.22	8.6	10.3	11.1	11.0	14.0	202
IHLP1212AEEZR33M1Z	0.33	10.4	12.4	10.1	9.0	11.7	144
IHLP1212AEEZR47M1Z	0.47	11.4	14.5	9.7	8.1	10.6	102
IHLP1212AEEZR56M1Z	0.56	15.3	18.4	8.3	7.5	9.8	100
IHLP1212AEEZR68M1Z	0.68	16.6	19.8	8.0	6.8	8.8	97
IHLP1212AEEZR82M1Z	0.82	20.3	23.4	7.3	6.0	7.8	92
IHLP1212AEEZ1R0M1Z	1.0	26.6	29.7	6.5	5.8	7.5	74
IHLP1212AEEZ1R5M1Z	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							
IHLP1212BZEZR10M1Z	0.1	7.2	8.0	12.0	13.5	22.0	120
IHLP1212BZEZR22M1Z	0.22	8.6	10.3	11.1	10.5	13.7	214
IHLP1212BZEZR36M1Z	0.36	10.4	12.4	10.1	10.0	13.0	161
IHLP1212BZEZR56M1Z	0.56	11.7	14.9	9.2	8.4	10.9	90
IHLP1212BZEZR68M1Z	0.68	12.6	15.8	8.9	8.2	10.7	85
IHLP1212BZEZR88M1Z	0.88	14.0	16.7	8.7	8.0	10.4	65
IHLP1212BZEZ1R0M1Z	1.0	18.0	20.0	8.4	7.6	9.0	55
IHLP1212BZEZ1R2M1Z	1.2	20.7	23.4	7.3	6.8	8.8	50
IHLP1212BZEZ1R5M1Z	1.5	22.5	25.2	7.1	6.0	7.9	47
IHLP1212BZEZ2R2M1Z	2.2	36.0	40.5	5.7	5.3	6.9	35
IHLP1212BZEZ3R3M1Z	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

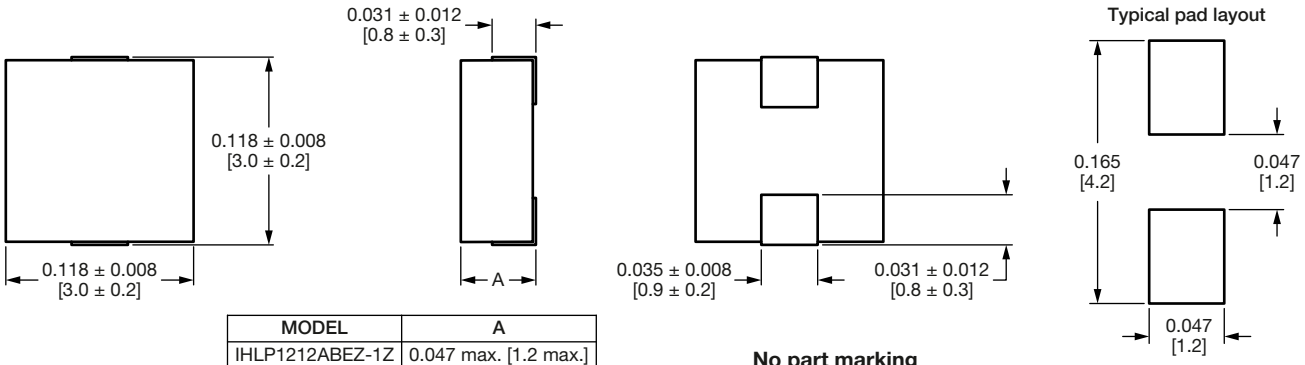
I H L P	1 2 1 2 B Z	E Z	1 R 5	M	1 Z
PRODUCT FAMILY	SIZE	PACKAGE CODE	INDUCTANCE VALUE	TOLERANCE	SERIES
		EZ = tape and reel, 3000 pieces/reel	**1R5** = 1.5 µH	**M** = ± 20 %	

DESCRIPTION

IHLP1212BZEZ-1Z	**1.5 µH**	**± 20 %**	**EZ**
MODEL	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	PACKAGE CODE

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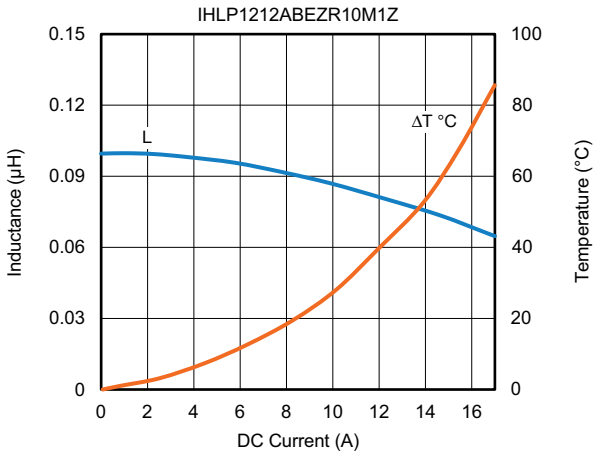
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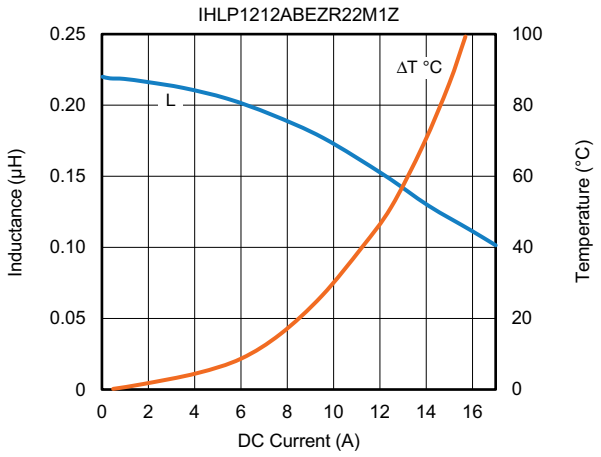


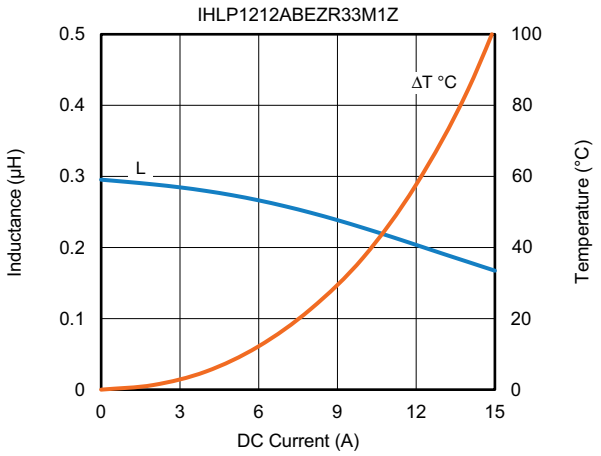
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IHLP1212BZEZ-1Z	0.079 max. [2.0 max.]

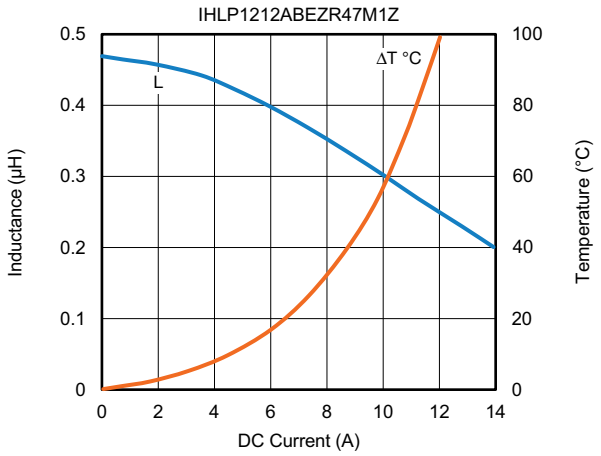
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PERFORMANCE GRAPHS: INDUCTANCE VS. DC CURRENT







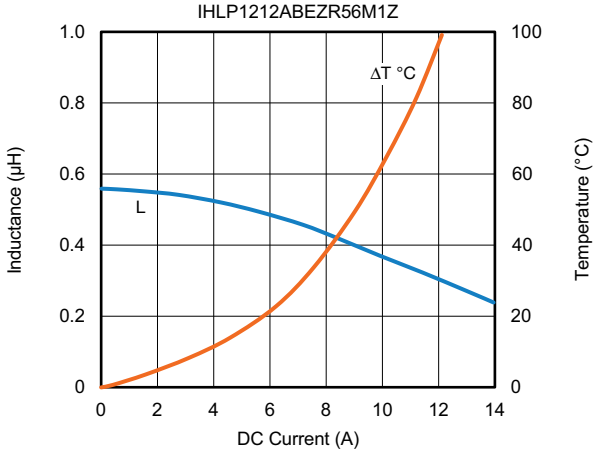


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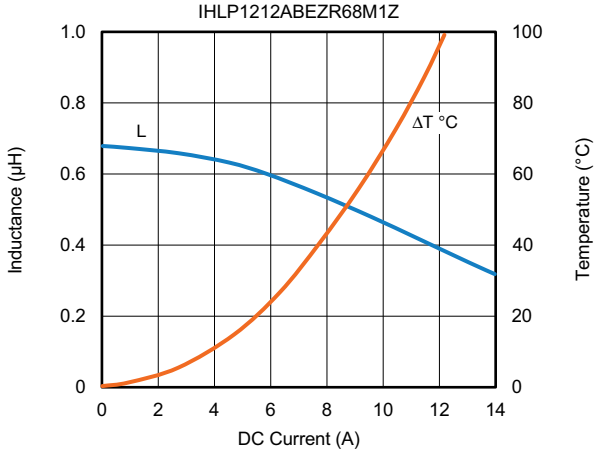
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PERFORMANCE GRAPHS: INDUCTANCE VS. DC CURRENT

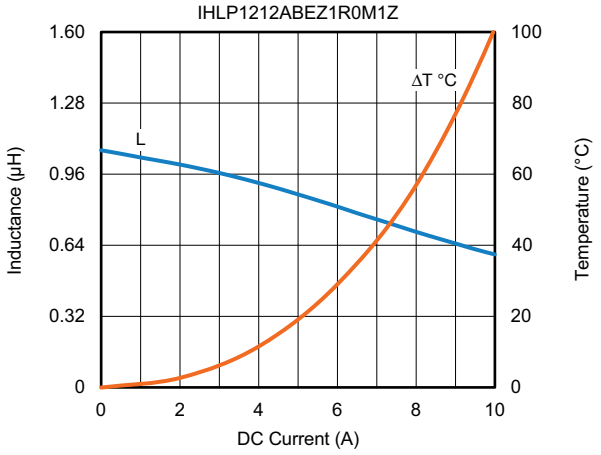
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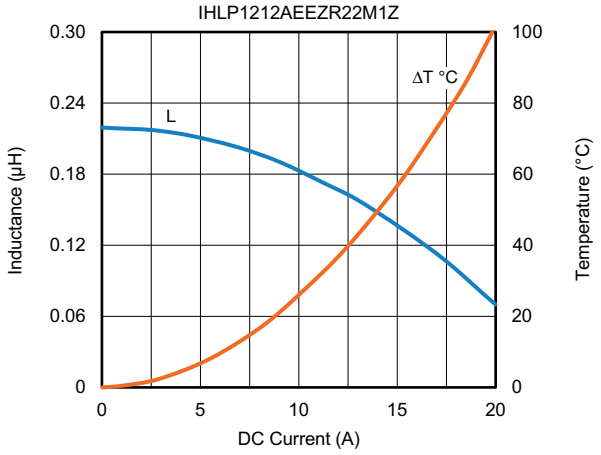
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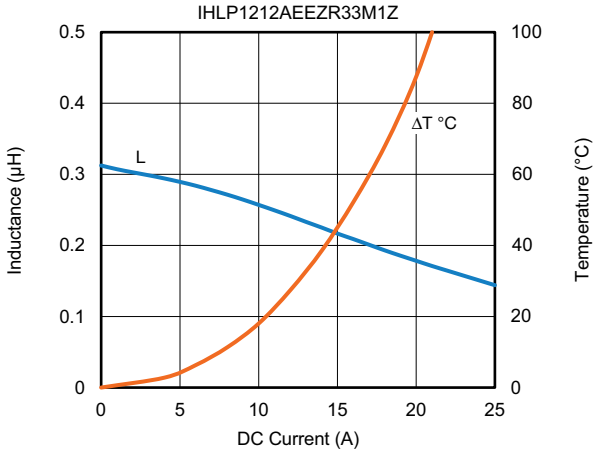
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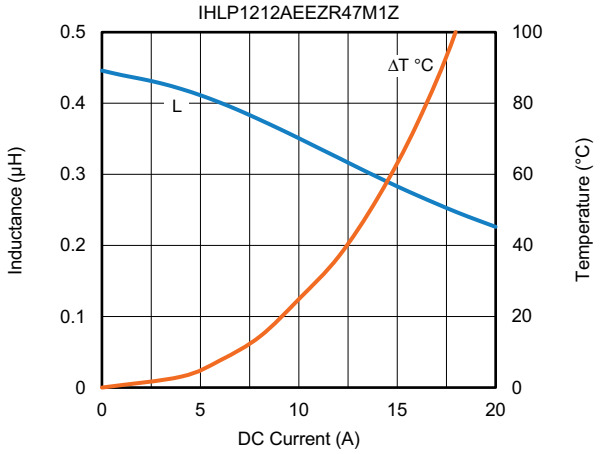
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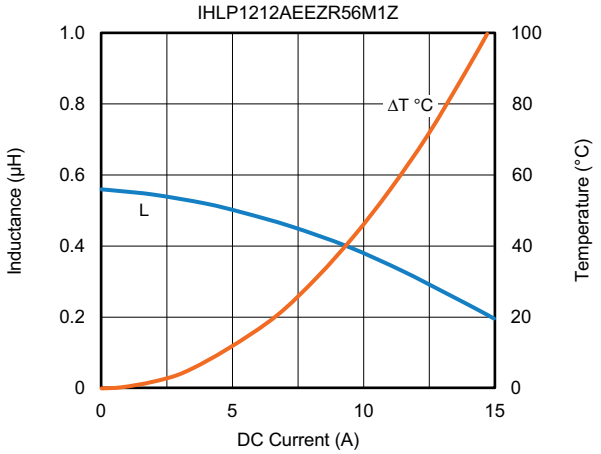


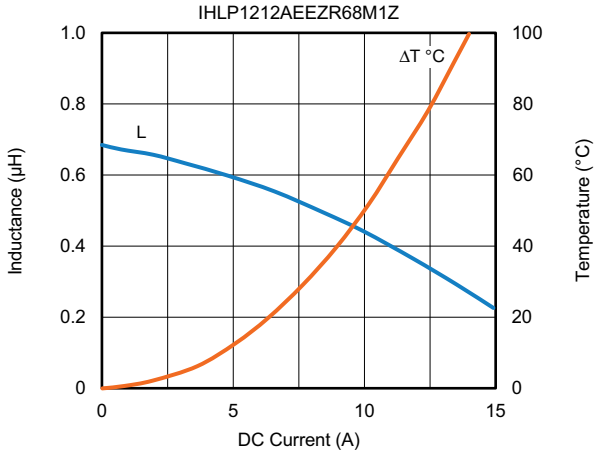
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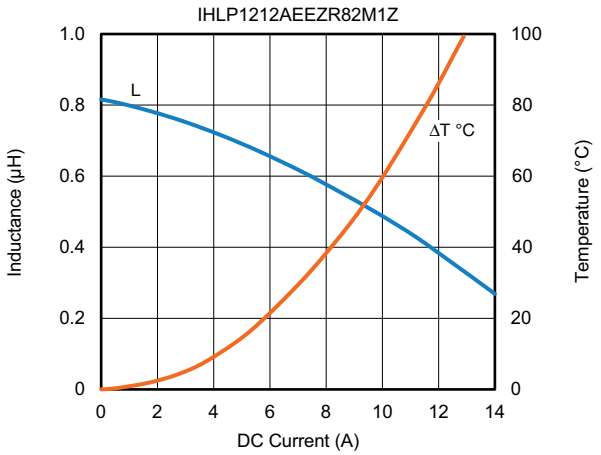


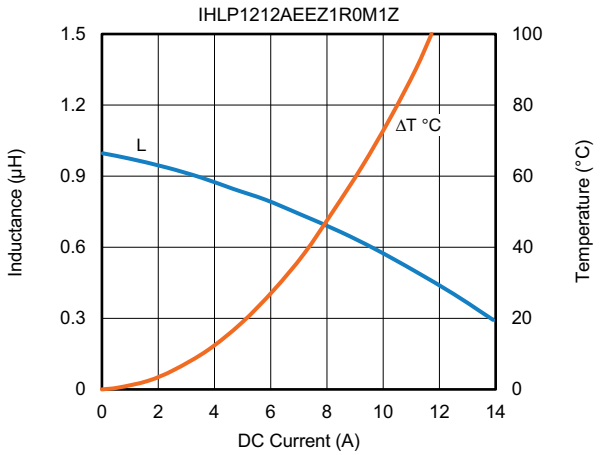
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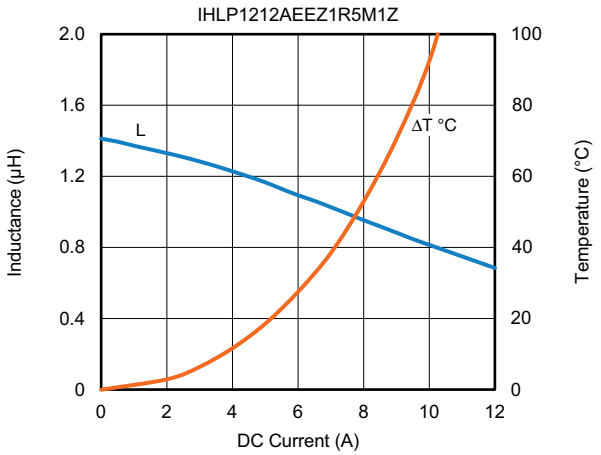
PERFORMANCE GRAPHS: INDUCTANCE VS. DC CURRENT

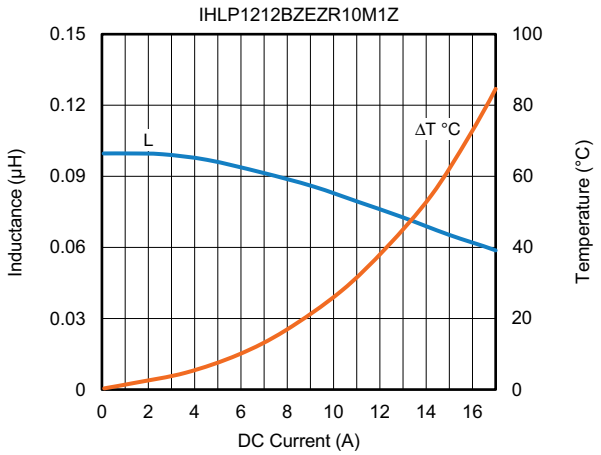






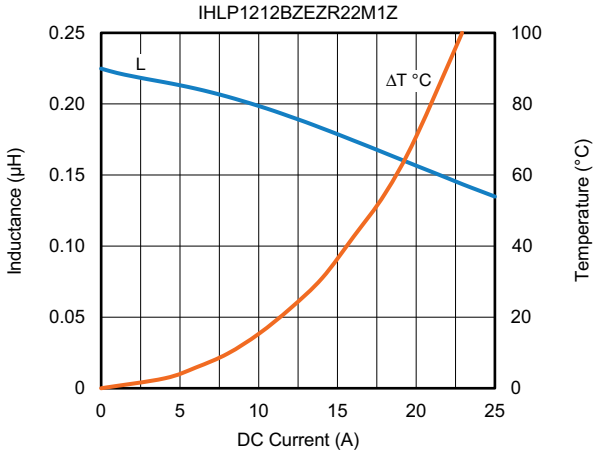


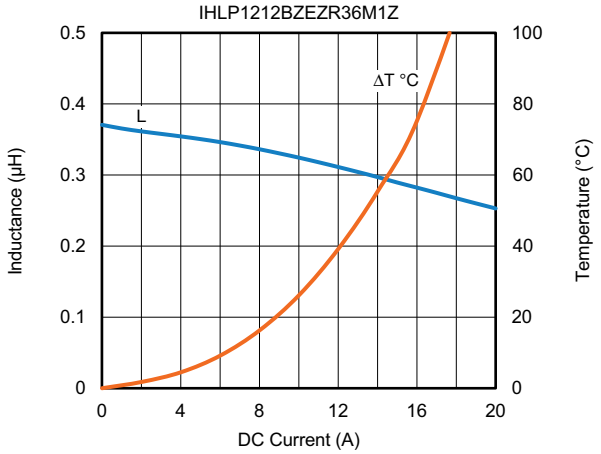


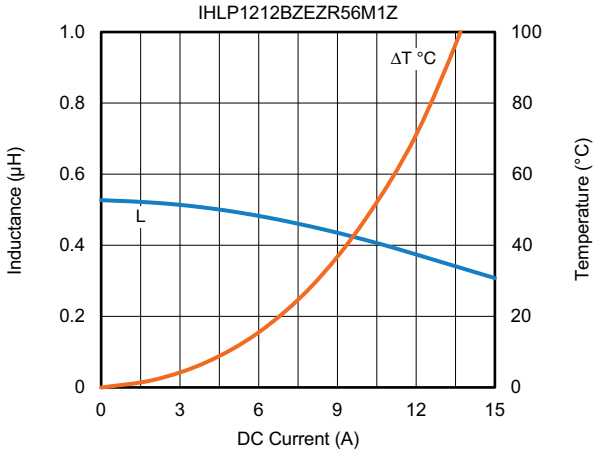


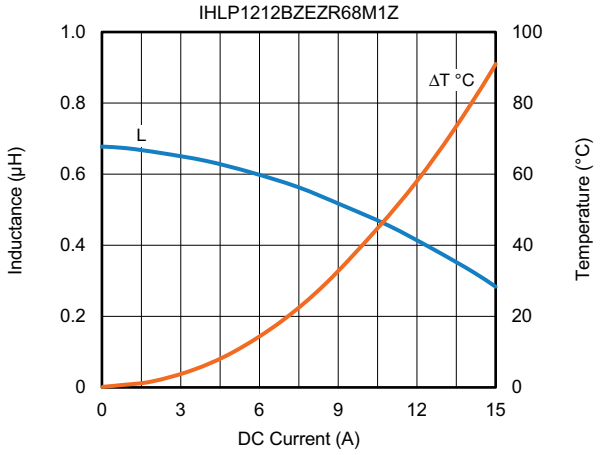
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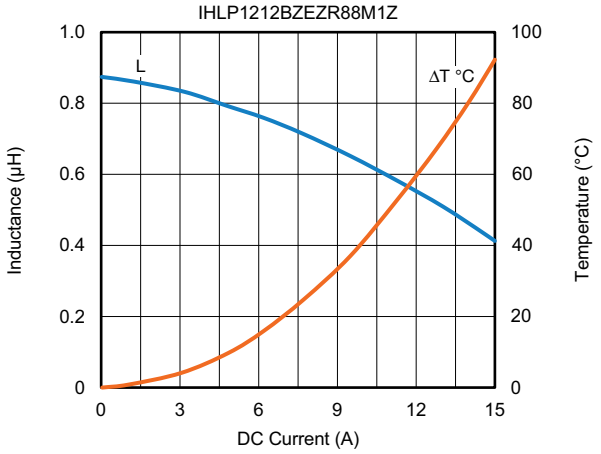
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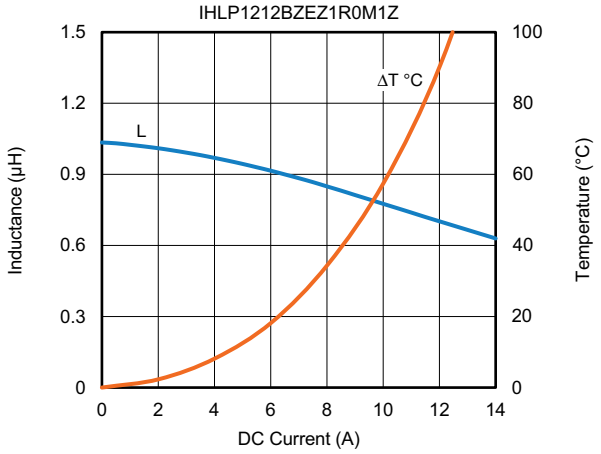






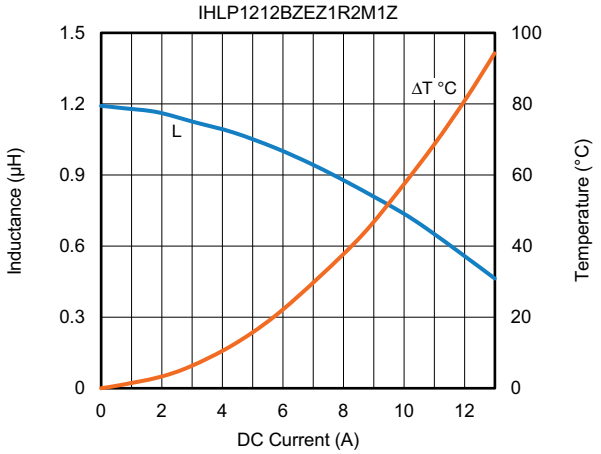


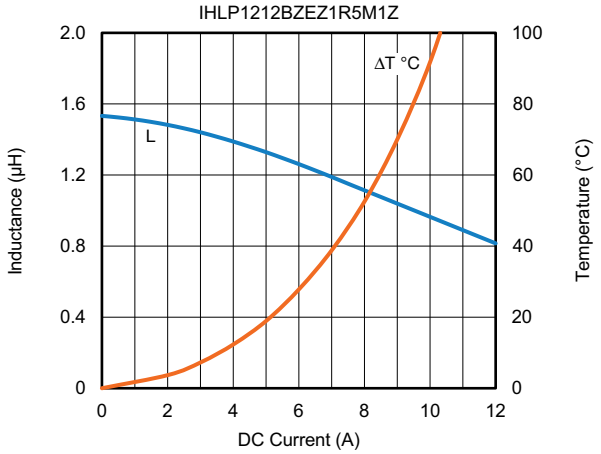


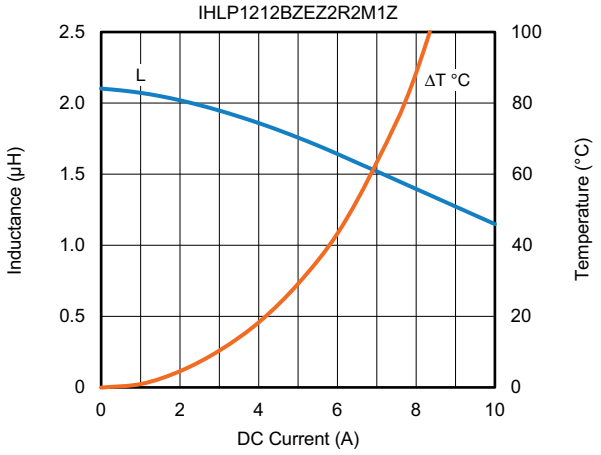


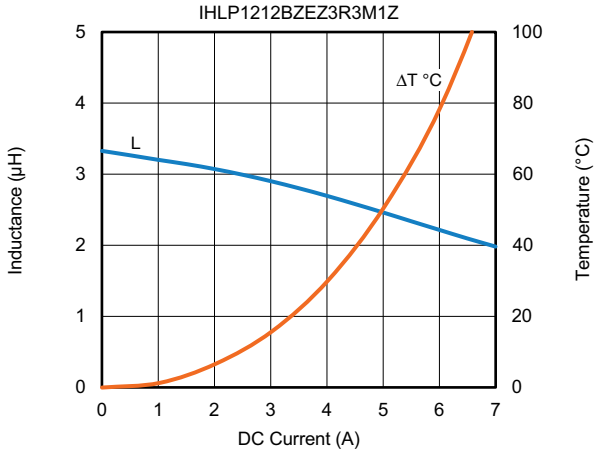
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PERFORMANCE GRAPHS: INDUCTANCE VS. DC CURRENT





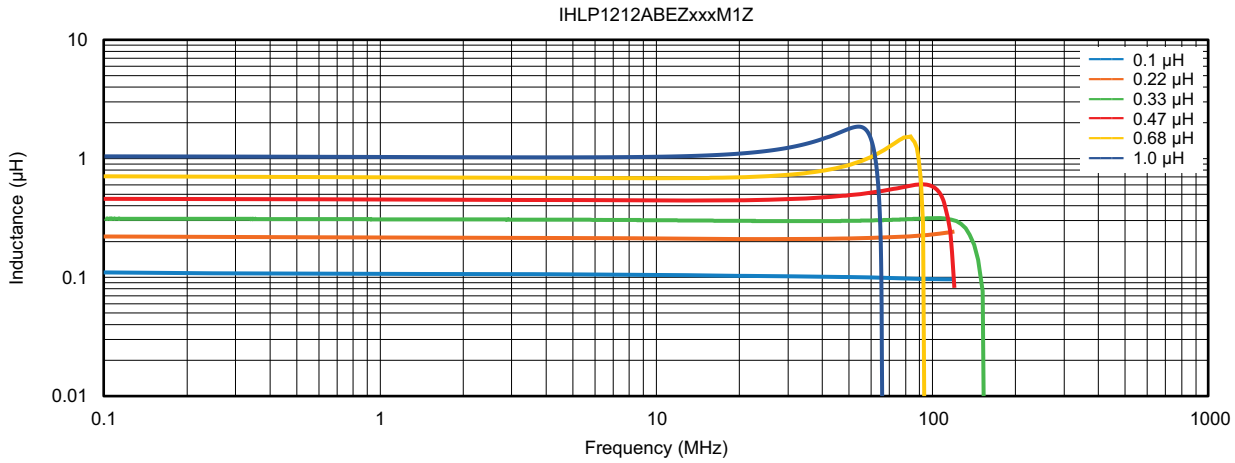


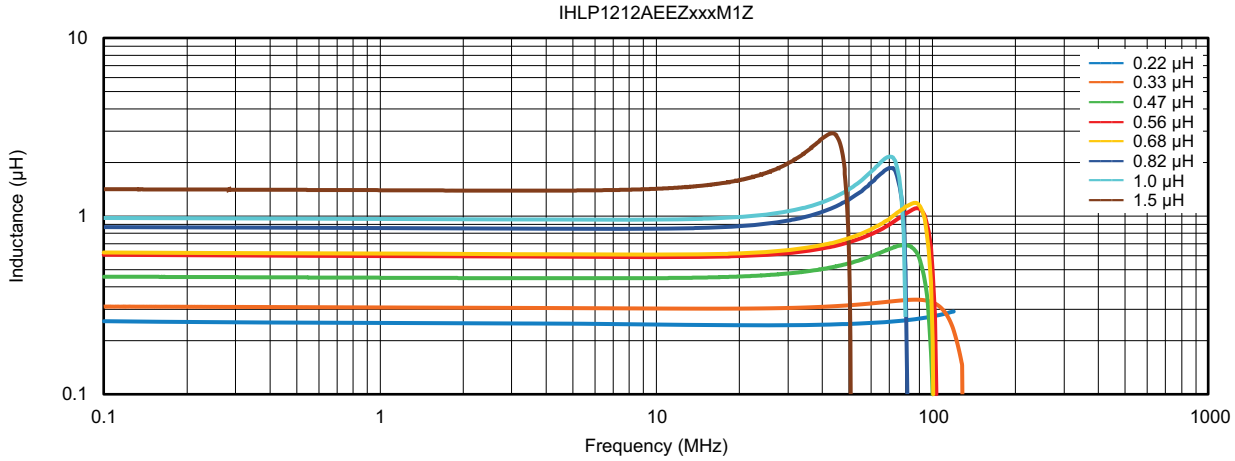


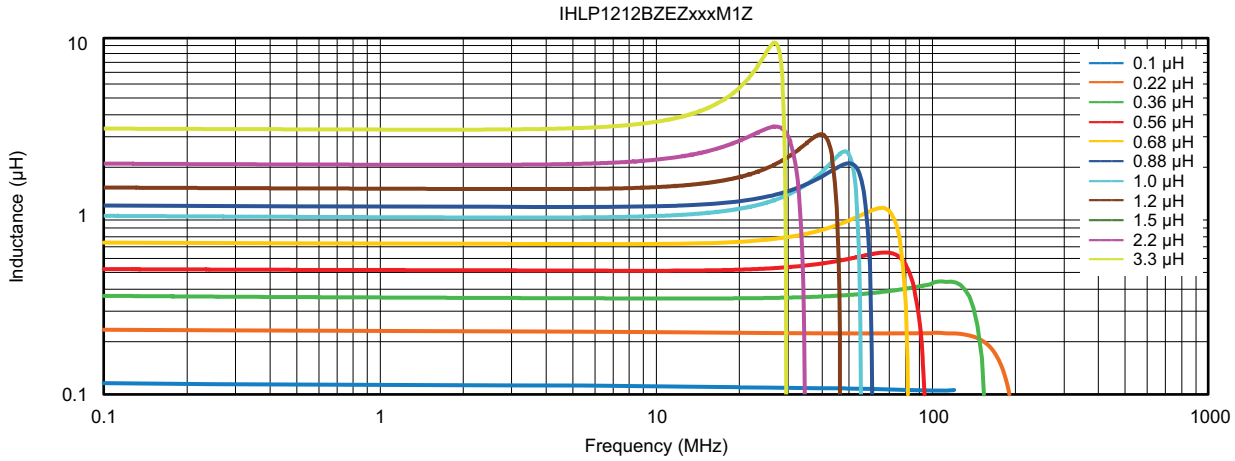
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