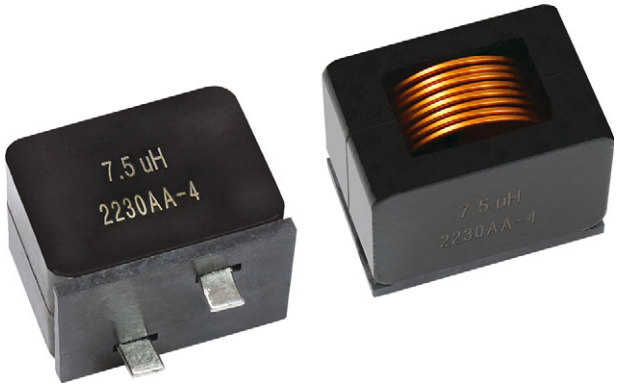
High Current Through-Hole Inductor, Edge-Wound Flat Wire With Coated Core



FEATURES

- Size: 27.50 mm x 18.80 mm x 22.6 mm
- Coated core offers improved resistance against high humidity and harsh environments
- Edge-wound flat wire achieves low DCR and high current capacity
- Isolation voltage rating 350 V_{DC}
- Powdered iron alloy core provides stable inductance and saturation over temperature
- High temperature operation up to 155 °C
- Termination: stripped and tinned through-hole (other configurations such as bare copper, SMD, and press fit pin are available upon request)
- Custom options for inductance, saturation current, current rating, DCR, mounting style and voltage rating can be developed upon request
- 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 Calculators

MATERIAL SPECIFICATIONS

- Core: powdered iron alloy
- Wire: polyamide insulated copper
- Plating: terminals dipped in tin alloy (Sn99.3Cu0.7)
- Weight: 47 g to 55 g

APPLICATIONS

- Power factor correction (PFC)
- DC battery filter
- DC/DC converters
- High current differential mode chokes
- Inverters

STANDARD ELECTRICAL SPECIFICATIONS

PART NUMBER	L_0 INDUCTANCE AT 0 A, ± 20 % (µH)	DCR AT 25 °C (mΩ)	DCR AT 25 °C (mΩ)	HEAT RATING CURRENT DC (A) (1)	SATURATION CURRENT DC (A) (2)		SRF TYP. (MHz)
		TYP.	MAX.	TYP.	20 % DROP	30 % DROP	
BEST SATURATION AND CORE LOSS							
IHDC1107BBEVR47M20	0.47	0.22	0.27	113	298	370	198
IHDC1107BBEV1R1M20	1.1	0.3	0.36	92	197	250	94
IHDC1107BBEV2R0M20	2	0.52	0.58	70	150	203	66
IHDC1107BBEV3R0M20	3	0.75	0.83	59	121	164	41
IHDC1107BBEV4R3M20	4.3	1.05	1.16	49	101	137	30
IHDC1107BBEV5R6M20	5.6	1.44	1.53	42	86	117	27
IHDC1107BBEV7R5M20	7.5	2.11	2.2	33	73	100	27
LOWEST DCR							
IHDC1107BBEVR68M30	0.68	0.22	0.27	114	178	239	171
IHDC1107BBEV1R5M30	1.5	0.3	0.36	87	116	157	87
IHDC1107BBEV2R7M30	2.7	0.52	0.58	71	92	123	53
IHDC1107BBEV4R3M30	4.3	0.75	0.83	66	70	94	32
IHDC1107BBEV6R2M30	6.2	1.05	1.16	55	62	83	25
IHDC1107BBEV8R2M30	8.2	1.44	1.53	42	52	71	24
IHDC1107BBEV120M30	12	2.11	2.2	30	44	59	22

Notes

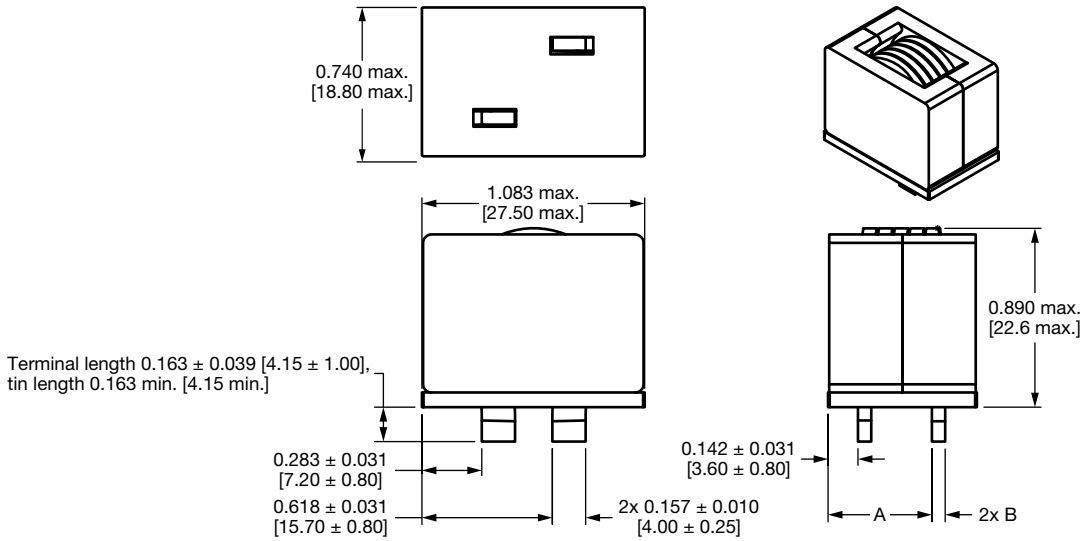
- The -20 series provides the best saturation and lowest core loss (compared to a similar inductance value from the -30 series)
- The -30 series provides lowest DC losses (compared to similar inductance value from -20 series)
- All test data is referenced to 25 °C ambient
- Inductance test condition: 100 kHz, 0.25 V
- Operating temperature range -40 °C to +155 °C
- Isolation voltage, coil to core: 350 V_{DC}, 60 s, 5 mA max.

(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 % and 30 %, respectively

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DIMENSIONS in inches [millimeters]



PART NUMBER	A ± 0.8 (mm)	B ± 0.3 (mm)
BEST SATURATION AND CORE LOSS		
IHDC1107BBEVR47M20	11.5	2.6
IHDC1107BBEV1R1M20	11.5	2.6
IHDC1107BBEV2R0M20	12.1	2.0
IHDC1107BBEV3R0M20	12.5	1.6
IHDC1107BBEV4R3M20	13.0	1.4
IHDC1107BBEV5R6M20	12.9	1.2
IHDC1107BBEV7R5M20	13.2	0.9
LOWEST DCR		
IHDC1107BBEVR68M30	11.5	2.6
IHDC1107BBEV1R5M30	11.5	2.6
IHDC1107BBEV2R7M30	12.1	2.0
IHDC1107BBEV4R3M30	12.5	1.6
IHDC1107BBEV6R2M30	13.0	1.4
IHDC1107BBEV8R2M30	12.9	1.2
IHDC1107BBEV120M30	13.2	0.9

DESCRIPTION

IHDC1107BB-20	7.5 µH	± 20 %	EV	e2
MODEL	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	PACKAGE CODE	JEDEC® LEAD (Pb)-FREE STANDARD

GLOBAL PART NUMBER

I H D C	1 1 0 7	B B	E	V	7 R 5	M	2 0
PRODUCT FAMILY	FOOTPRINT	HEIGHT	LEAD (Pb)-FREE	STYLE	INDUCTANCE	INDUCTANCE TOLERANCE	SERIES
	1107 = 1.1" x 0.7"	**BB** = 22 mm		**V** = vertical	**7R5** = 7.5 µH	**M** = ± 20 %	**20** = best saturation **30** = lowest DCR

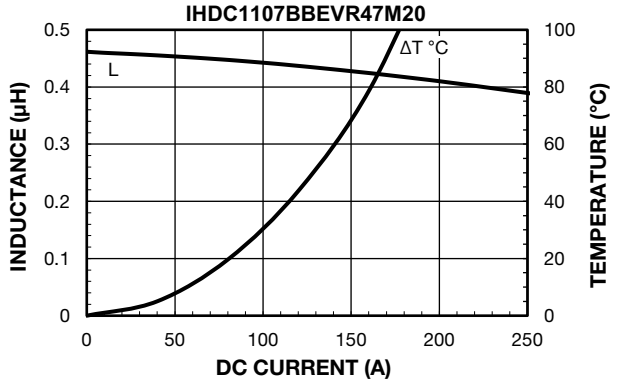
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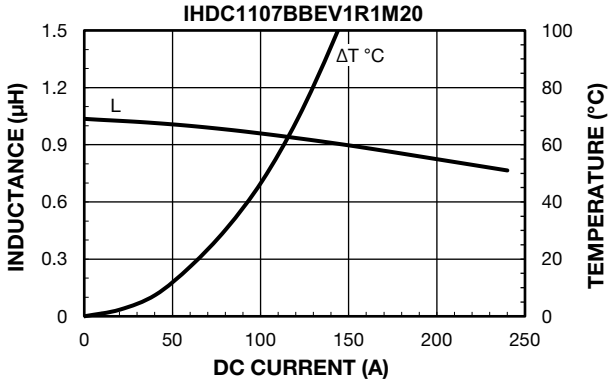
- For additional packaging details see "Packaging Methods"

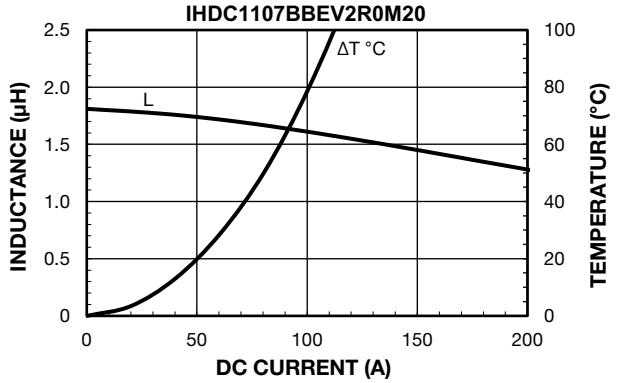
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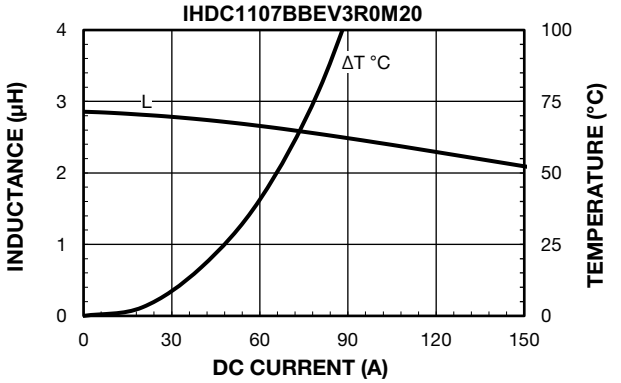
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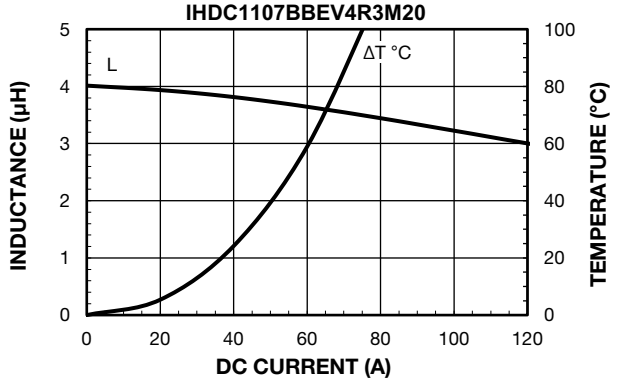
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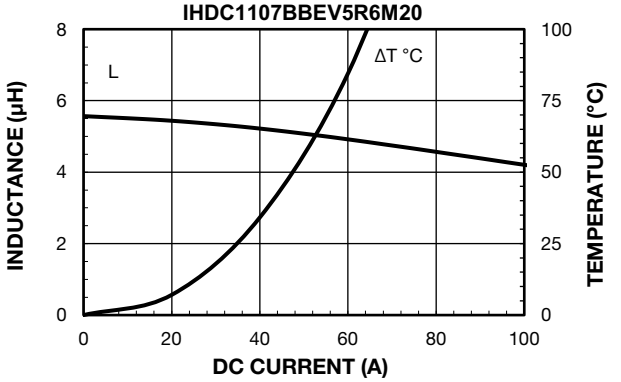


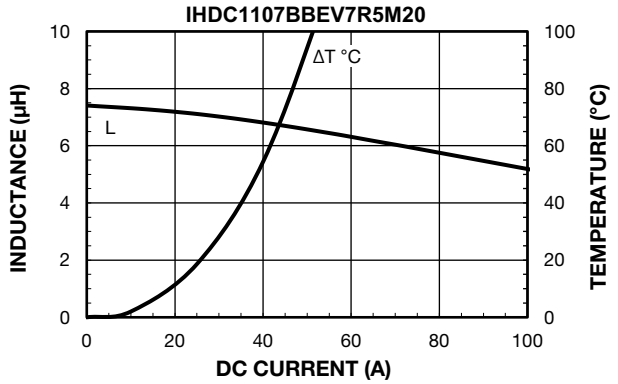


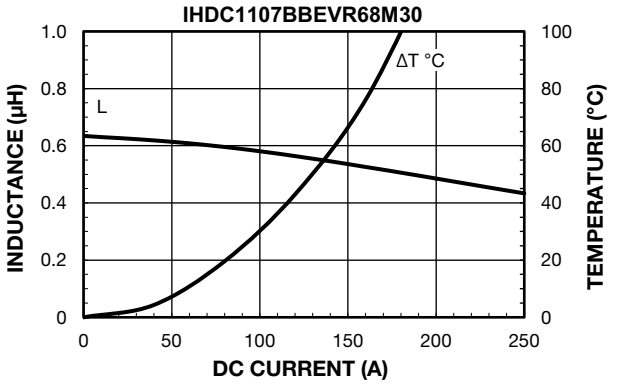








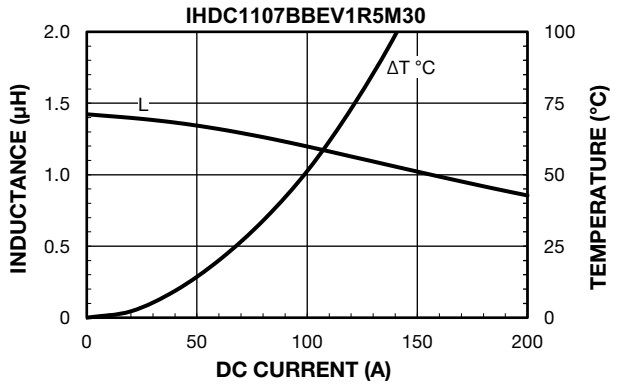


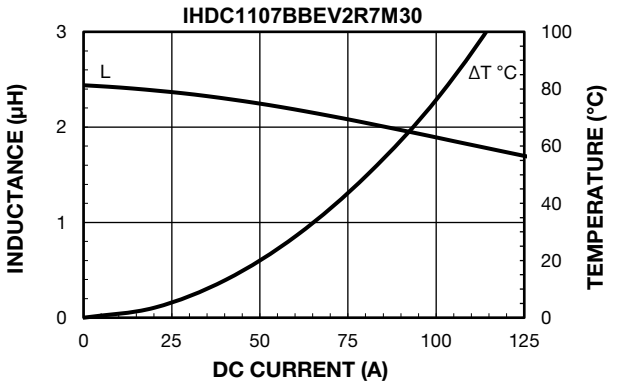


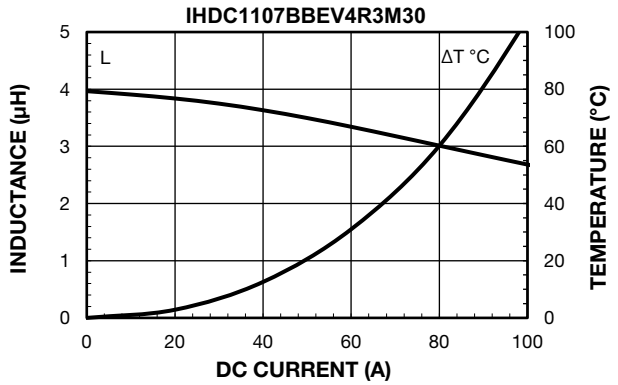
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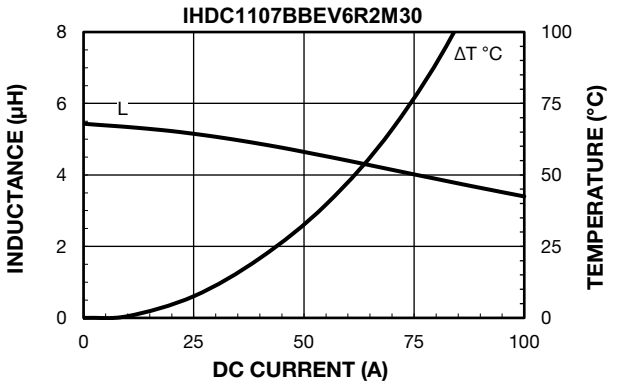
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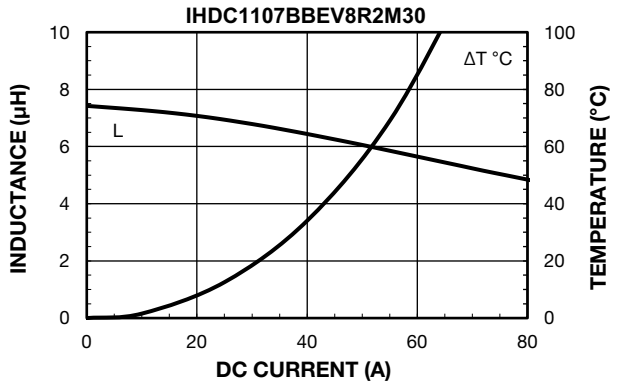
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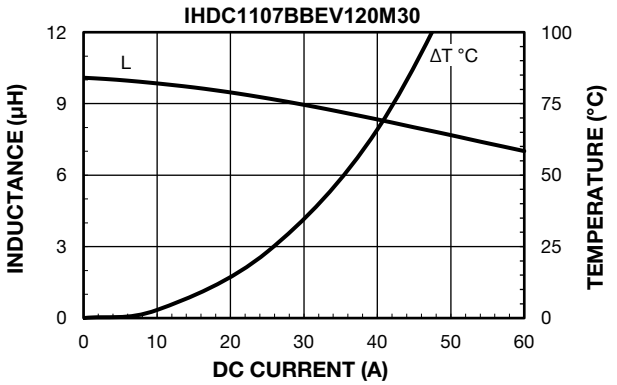










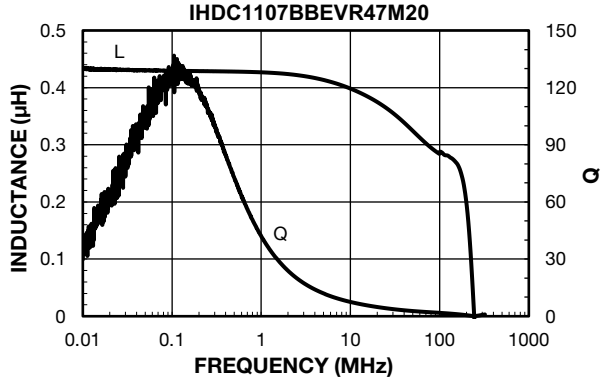


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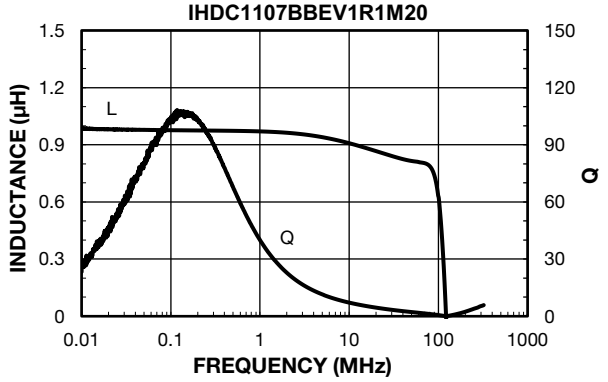
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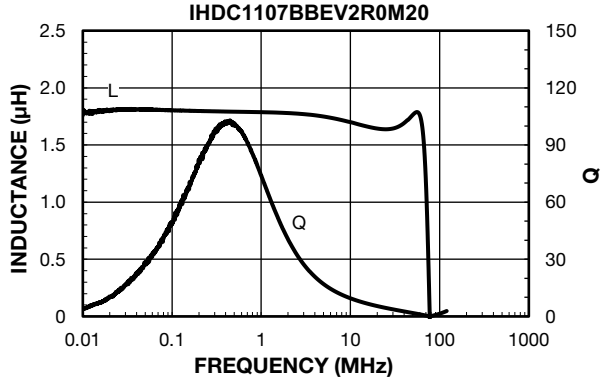
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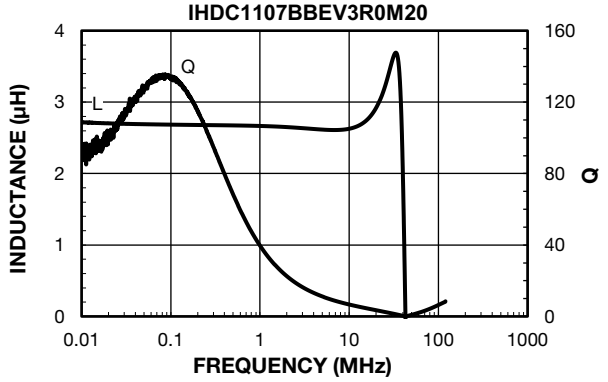
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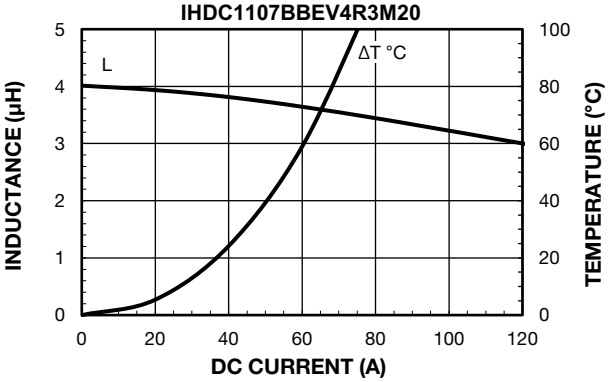
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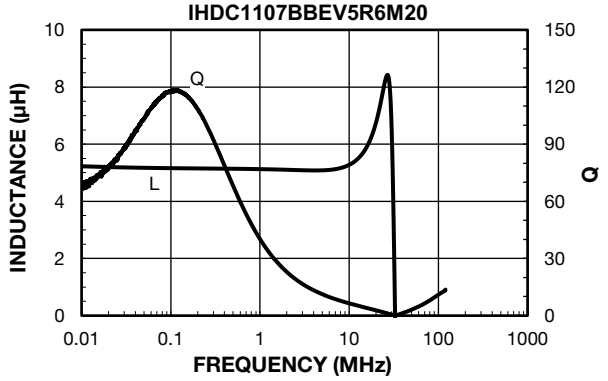
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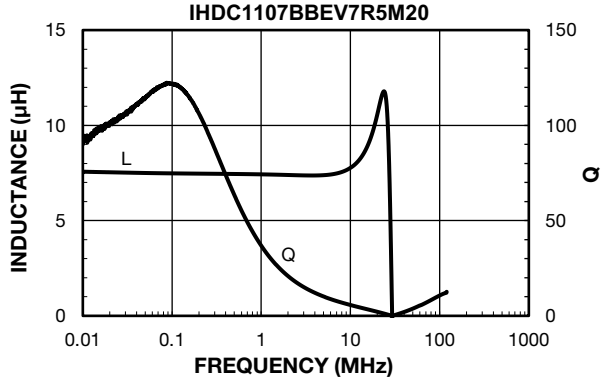
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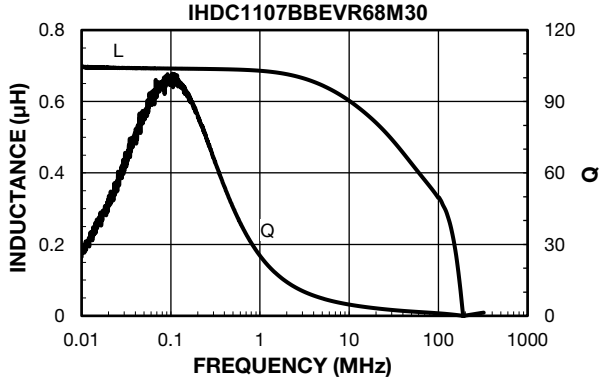
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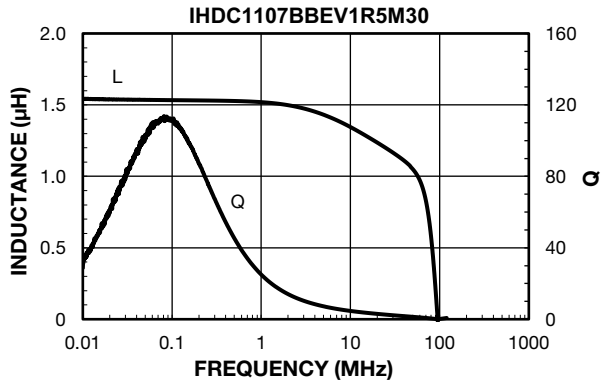


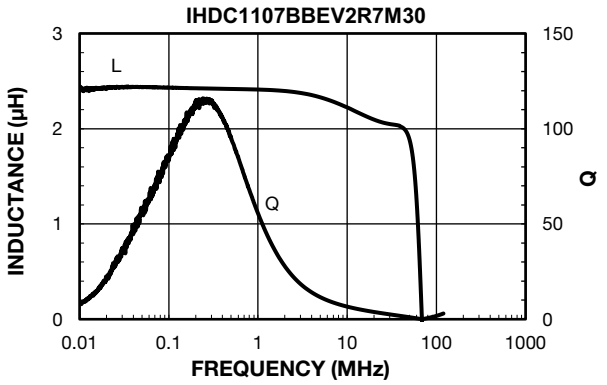
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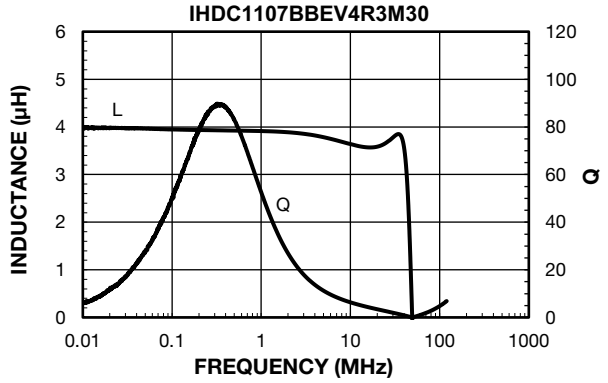


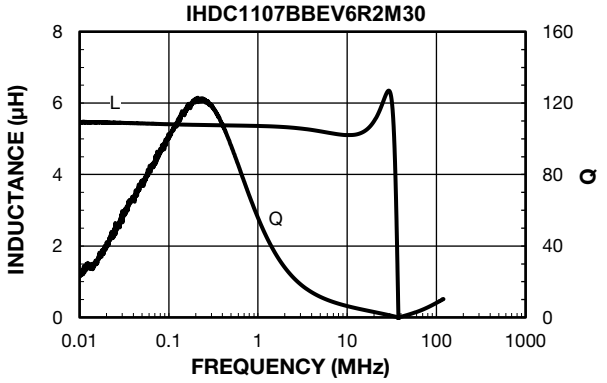
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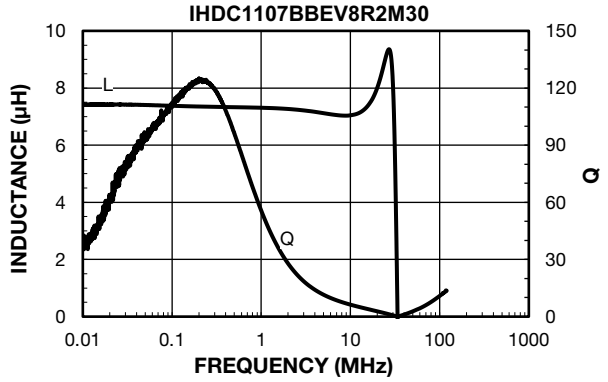
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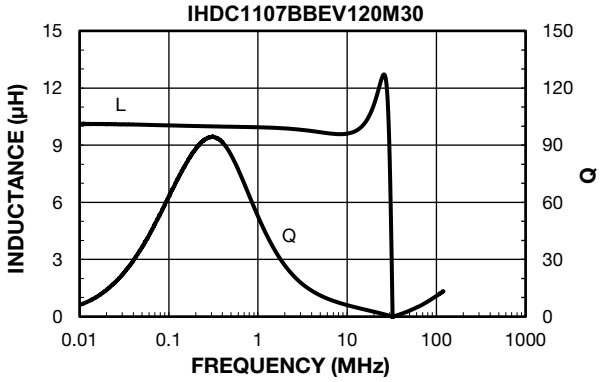












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