Mulitilayer Power Inductors-JHI Series

Features

High saturation current realized by material properties and structure design

Low DC resistance to achieve high conversion efficiency and lower temperature rising

Low Profile: Thickness in 1.0 mm.

Magnetically shielded structure to accomplish high resolution in EMC protection.

Halogen free, Lead Free, RoHS Compliance.

Applications

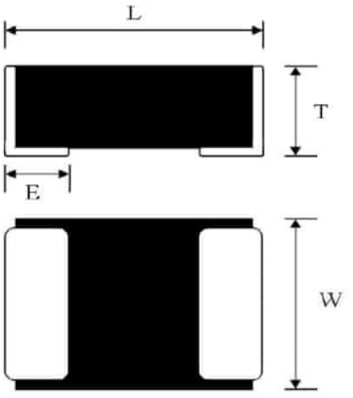
JHI series is generic applied in portable DC to DC converter line.

Smart phone, PAD

Thin-type power supply module,

DC/DC converter

Dimensions (mm)



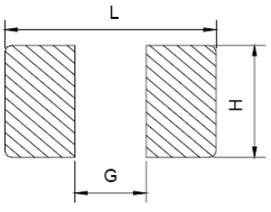
SERIES	L	W	T	E
JHI201610	2.0±0.2	1.6±0.2	1.0Max	0.5±0.3
JHI252010	2.5±0.2	2.0±0.2	1.0Max	0.6±0.3
JHI252012	2.5±0.2	2.0±0.2	1.2Max	0.6±0.3

Product Identification

JHI 201610 P- 1R0 M L - JB

JHI: SERIES NAME
201610:DIMENSION Size Code
P/S:Material Code
1R0: INDUCTANCE CODE.
M: TOLERANCE, M=20%.
L:Electrode Type
JB: SID Code

RECOMMENDER P.C.B LAYOUT



SERIES	L	G	H
JHI201610	2.3	0.9	1.0
JHI252010	2.8	1.2	2.0
JHI252012	2.8	1.2	2.0

Mulitilayer Power Inductors-JHI Series

Electrical Characteristics

Part Number	Inductance	DC Resistance(mΩ)		Isat(A)		Irms(A)	
	(uH)	Typical	Max	Typical	Max	Typical	Max
JHI201610P-R24ML-JB	0.24	17	21	5.60	5.05	5.00	4.50
JHI201610P-R33ML-JB	0.33	24	29	5.00	4.50	4.10	3.69
JHI201610P-R47ML-JB	0.47	33	40	4.40	4.00	3.50	3.15
JHI201610P-R68ML-JB	0.68	41	49	3.70	3.33	3.40	3.06
JHI201610P-1R0ML-JB	1.0	60	69	2.90	2.61	2.60	2.26
JHI201610P-1R5ML-JB	1.5	114	129	2.50	2.25	2.00	1.81
JHI201610P-2R2ML-JB	2.2	135	150	1.90	1.71	1.70	1.50
JHI201610S-R47ML-JB	0.47	23	30	6.10	5.30	4.50	4.05
JHI201610S-1R0ML-JB	1.0	48	60	3.90	3.30	3.20	3.00
JHI201610S-1R5ML-JB	1.5	86	99	3.40	3.10	2.40	2.20
JHI201610S-2R2ML-JB	2.2	117	140	2.60	2.45	2.20	2.00

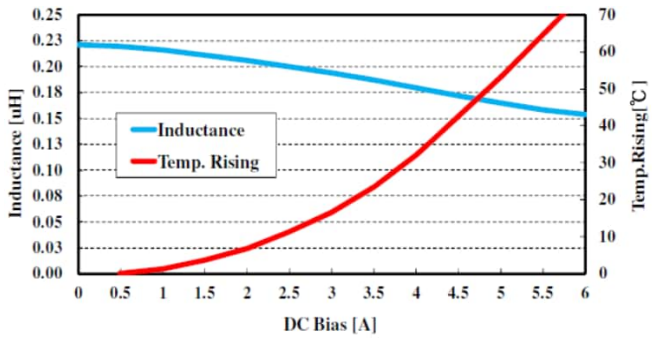
Note 1: Customized design is available, please contact us.
Note 2: All test referenced to 26 ambient
Note 3: Inductance tolerance +/- 20%
Note 4: Inductance is measured with Agilent® LCR meter 4285A. Test frequency at 1MHz.
Note 5: DC resistance is measured with HIOKI® micro-ohm meter RM3542-01.
Note 6: Isat means that DC current will cause a 30% inductance reduction form initial value.
Note 7: Irms means that DC current will cause coil temp. rising to 40 whichever is smaller.
Note 8: Temperature Specifications

Operating Temperature range : -40℃ to +125℃
torage Temperature range : -40℃ to +125℃

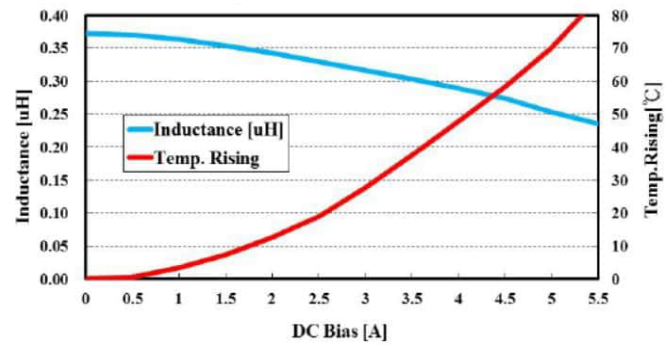
Mulitilayer Power Inductors-JHI Series

Current Characteristic

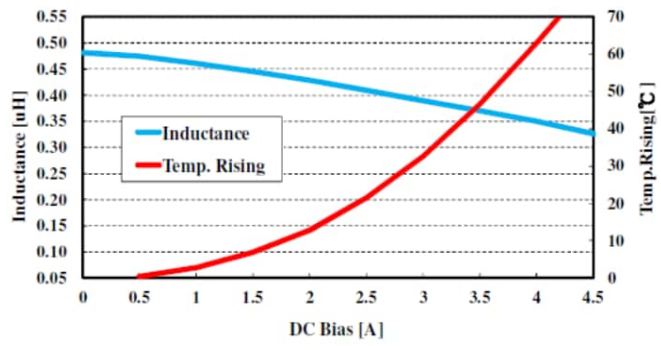
JHI201610P-R24ML-JB



JHI201610P-R33ML-JB



JHI201610P-R47ML-JB



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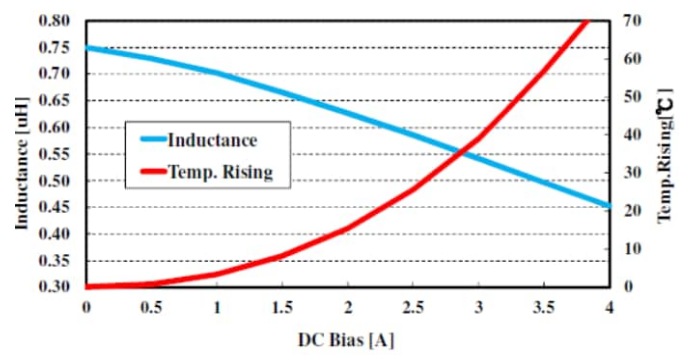

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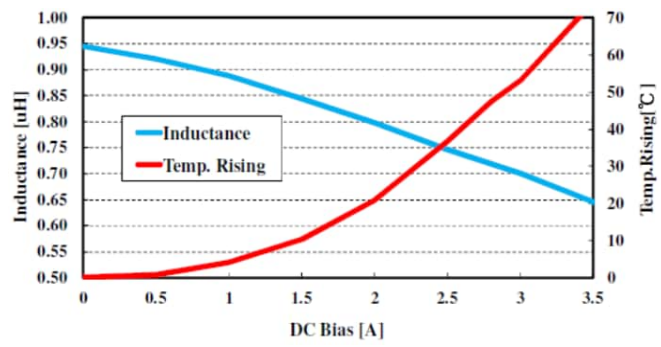

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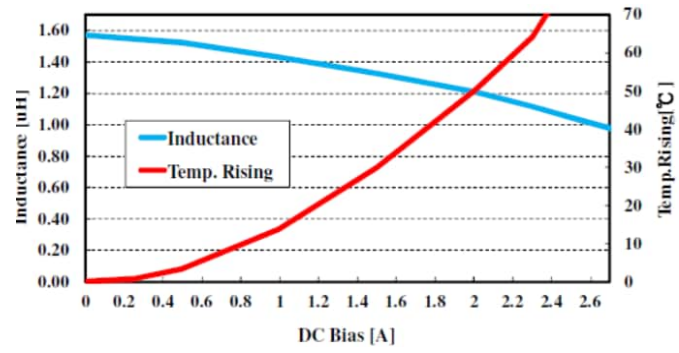
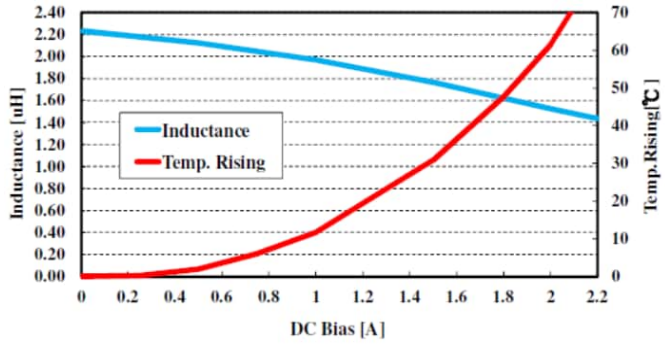


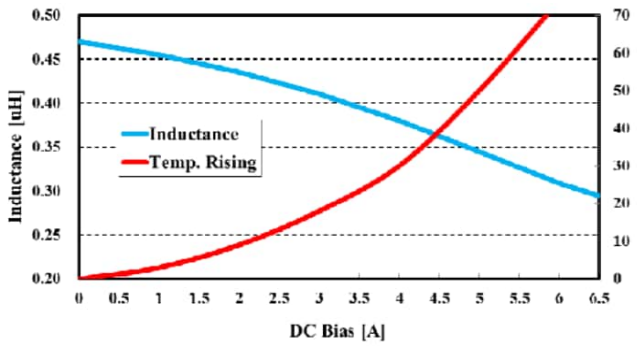
JHI201610P-2R2ML-JB



Mulitilayer Power Inductors-JHI Series

Current Characteristic

JHI201610S-R47ML-JB



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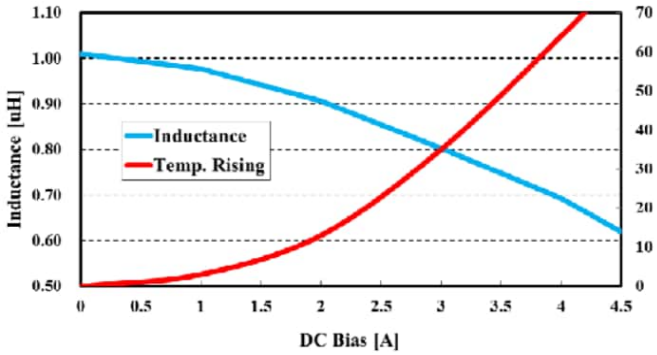

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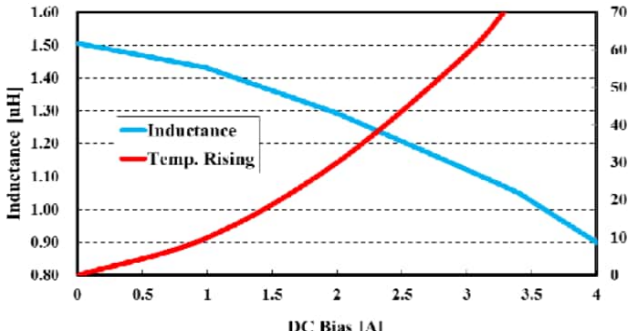

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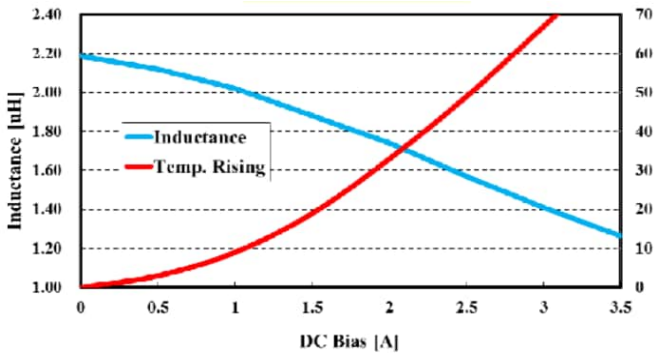


Mulitilayer Power Inductors-JHI Series

Electrical Characteristics

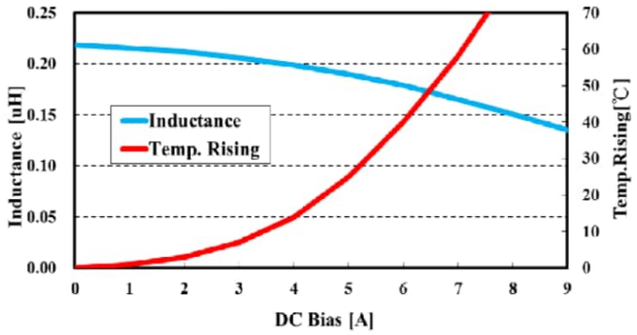
Part Number	Inductance	DC Resistance(mΩ)		Isat(A)		Irms(A)	
	(uH)	Typical	Max	Typical	Max	Typical	Max
JHI252010P-R22ML-JB	0.22	9	12.5	7.90	7.20	5.90	5.30
JHI252010P-R33ML-JB	0.33	21	26	6.60	6.00	4.40	4.00
JHI252010P-R47ML-JB	0.47	27	32	5.00	4.50	3.90	3.51
JHI252010P-R68ML-JB	0.68	37	44	4.30	3.87	3.40	3.06
JHI252010P-1R0ML-JB	1.0	45	54	3.50	3.15	3.00	2.70
JHI252010P-1R5ML-JB	1.5	76	91	2.60	2.34	2.50	2.25
JHI252010P-2R2ML-JB	2.2	99	119	2.40	2.16	2.30	2.07
JHI252010P-4R7ML-JB	4.7	220	262	1.80	1.62	1.36	1.22
JHI252010S-R33ML-JB	0.33	17	22	7.80	7.00	5.60	4.80
JHI252010S-R47ML-JB	0.47	23	29	6.60	6.00	5.20	4.40
JHI252010S-1R0ML-JB	1.0	41	52	4.40	4.00	3.40	3.10
JHI252010S-1R5ML-JB	1.5	67	77	3.80	3.50	2.60	2.30
JHI252010S-2R2ML-JB	2.2	88	110	3.30	3.00	2.40	2.10

Note 1: Customized design is available, please contact us.
Note 2: All test referenced to 26 ambient
Note 3: Inductance tolerance +/- 20%
Note 4: Inductance is measured with Agilent® LCR meter 4285A. Test frequency at 1MHz.
Note 5: DC resistance is measured with HIOKI® micro-ohm meter RM3542-01.
Note 6: Isat means that DC current will cause a 30% inductance reduction form initial value.
Note 7: Irms means that DC current will cause coil temp. rising to 40 whichever is smaller.
Note 8: Temperature Specifications

Operating Temperature range : -40℃ to +125℃
torage Temperature range : -40℃ to +125℃

Current Characteristic

JHI252010P-R22ML-JB



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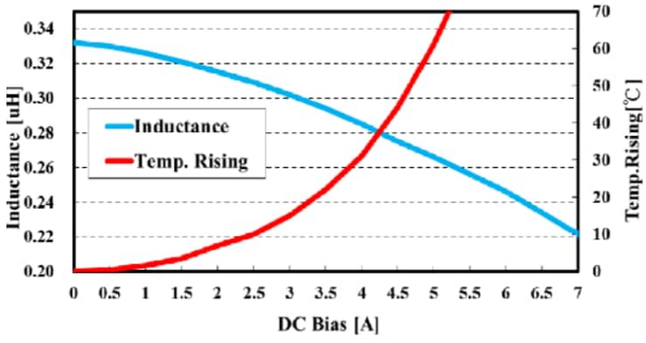

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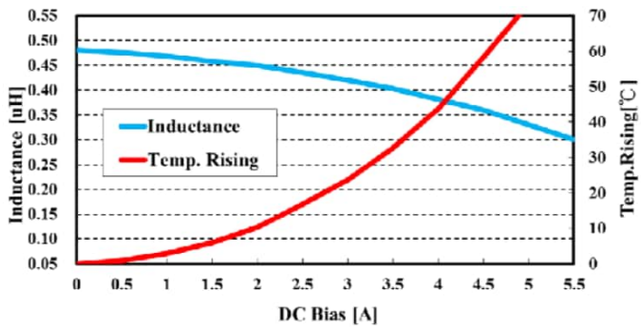

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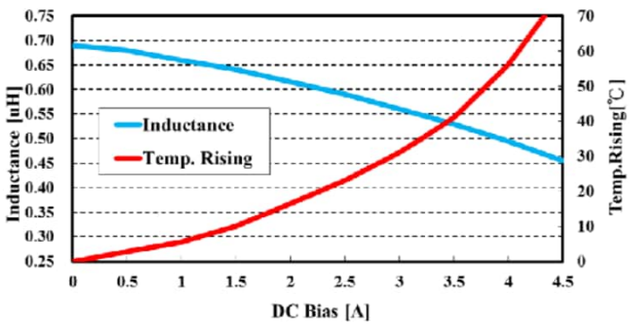
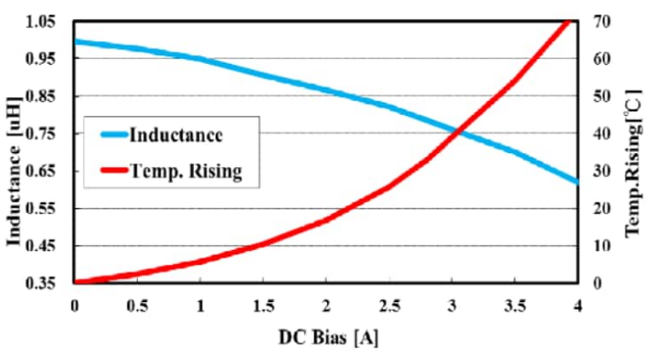


JHI201610P-1R0ML-JB



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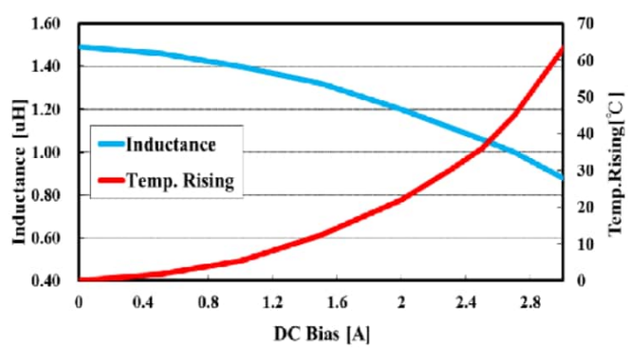

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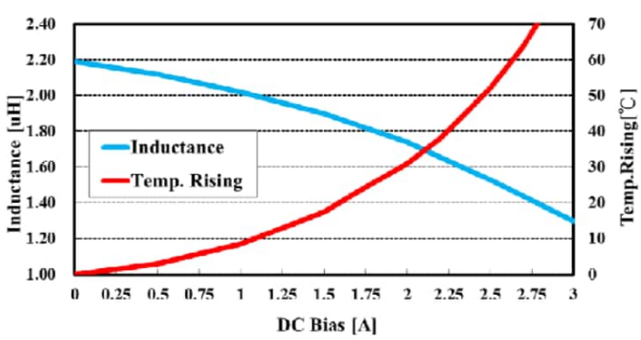
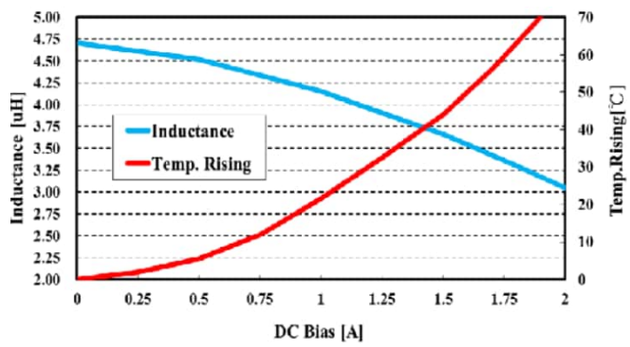
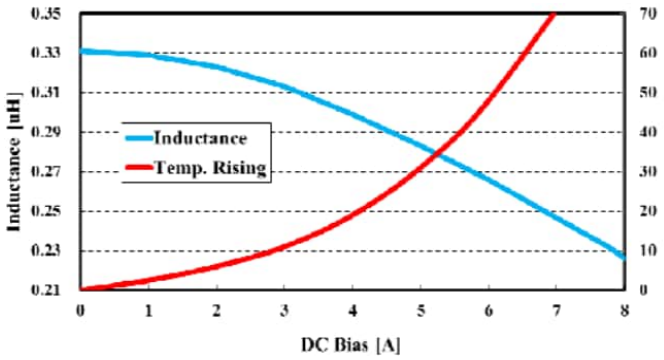


JHI252010P-4R7ML-JB



Current Characteristic

JHI252010S-R33ML-JB



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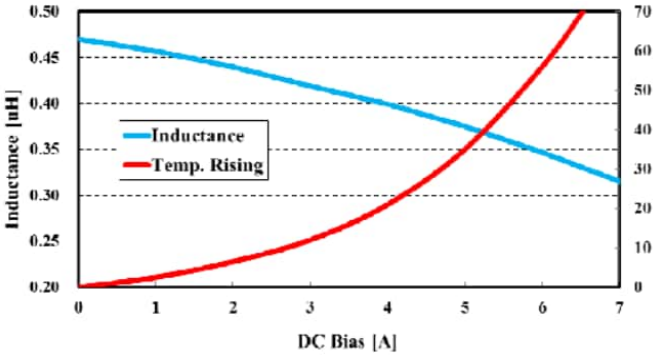

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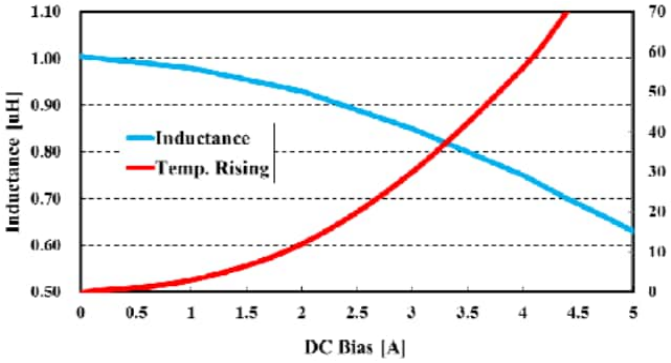

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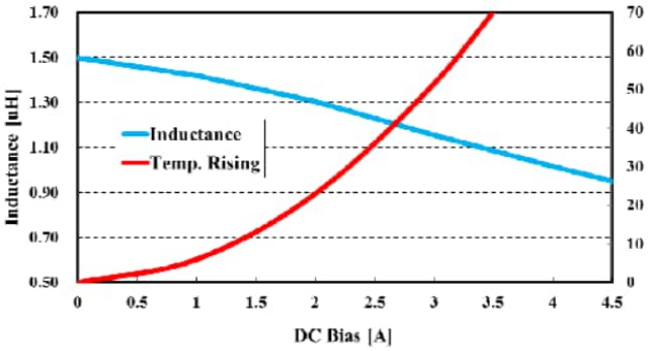

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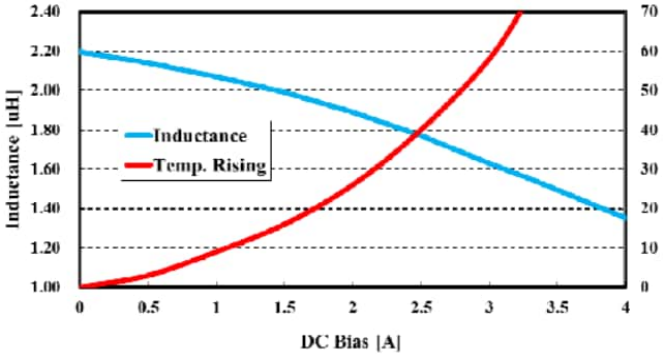


Mulitilayer Power Inductors-JHI Series

Electrical Characteristics

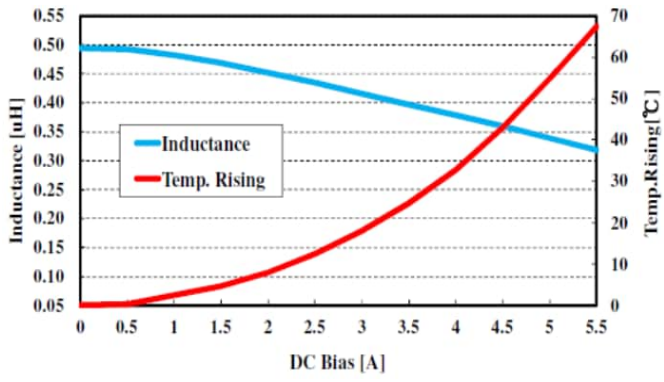
Part Number	Inductance	DC Resistance(mΩ)		Isat(A)		Irms(A)	
	(uH)	Typical	Max	Typical	Max	Typical	Max
JHI252012P-R47ML-JB	0.47	21	25	5.30	4.95	4.60	4.18
JHI252012P-R68ML-JB	0.68	29	36	5.00	4.63	3.70	3.60
JHI252012P-1R0ML-JB	1.0	41	49	4.40	4.04	3.50	3.18
JHI252012P-1R5ML-JB	1.5	64	77	3.20	2.91	2.50	2.27
JHI252012P-2R2ML-JB	2.2	85	98	3.00	2.73	2.27	2.06
JHI252012P-4R7ML-JB	4.7	196	235	1.90	1.58	1.61	1.40
JHI252012S-R47ML-JB	0.47	16	22	6.80	6.20	5.80	4.90
JHI252012S-1R0ML-JB	1.0	36	44	4.80	4.30	3.90	3.30
JHI252012S-2R2ML-JB	2.2	74	89	3.50	3.20	2.50	2.20

Note 1: Customized design is available, please contact us.
Note 2: All test referenced to 26 ambient
Note 3: Inductance tolerance +/- 20%
Note 4: Inductance is measured with Agilent® LCR meter 4285A. Test frequency at 1MHz.
Note 5: DC resistance is measured with HIOKI® micro-ohm meter RM3542-01.
Note 6: Isat means that DC current will cause a 30% inductance reduction form initial value.
Note 7: Irms means that DC current will cause coil temp. rising to 40 whichever is smaller.
Note 8: Temperature Specifications
Operating Temperature range : -40℃ to +125℃
torage Temperature range : -40℃ to +125℃

Mulitilayer Power Inductors-JHI Series

Current Characteristic

JHI252012P-R47ML-JB



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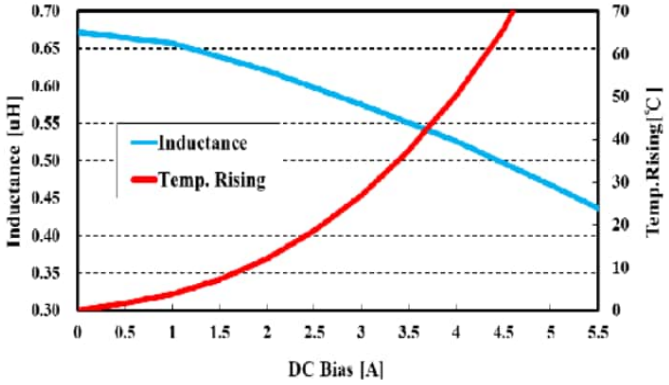

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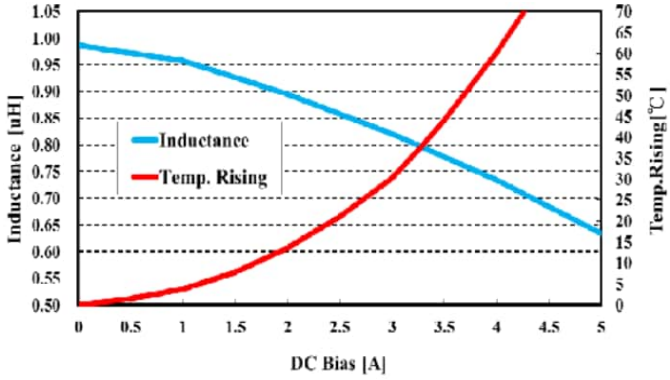

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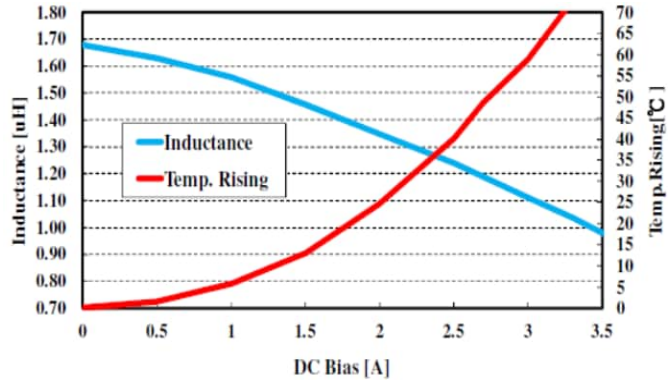

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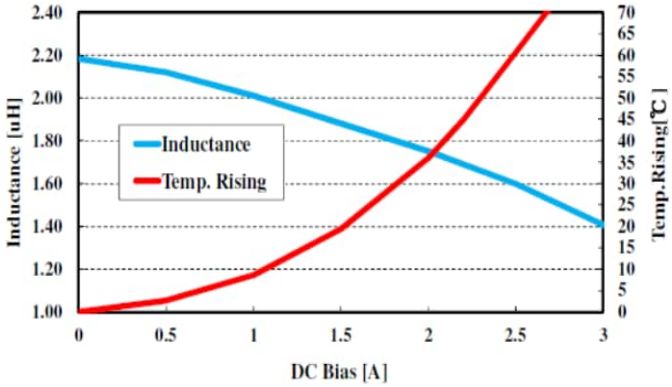

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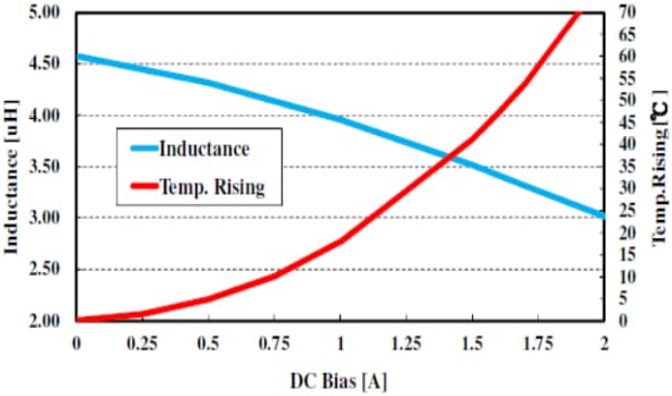
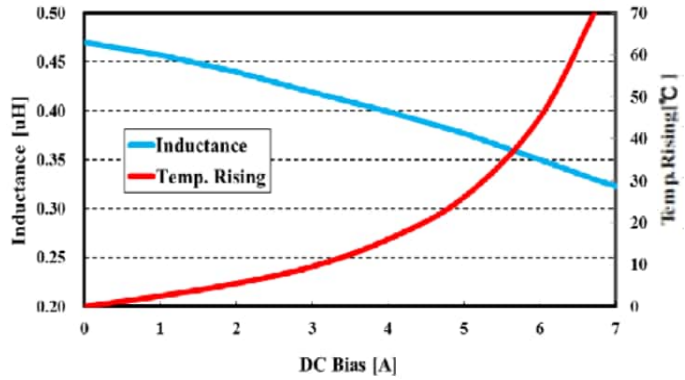


Mulitilayer Power Inductors-JHI Series

Current Characteristic

JHI252012S-R47ML-JB



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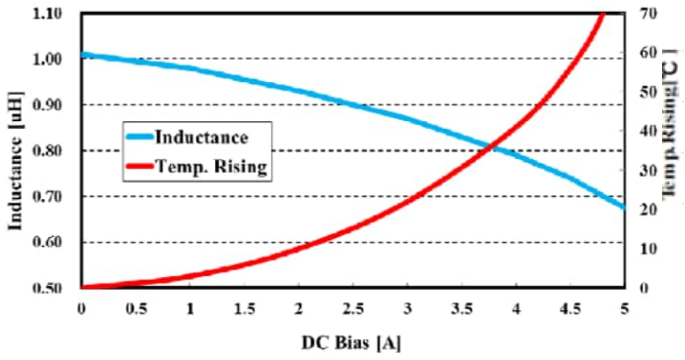

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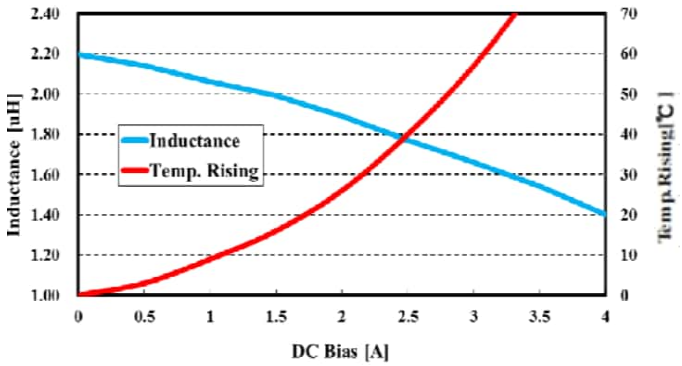


Mulitilayer Power Inductors-JHI Series

Electrical Characteristics

Part Number	Inductance	DC Resistance(mΩ)		Isat(A)		Irms(A)		SRF(MHz)	Q
	(uH)	Typical	Max	Typical	Max	Typical	Max	Typical	Typical
JHI252010C-R22ML-JB	0.22	9	12.5	7.90	7.20	5.90	5.30	170	35
JHI252010C-R33ML-JB	0.33	21	26	6.60	6.00	4.40	4.00	154	35
JHI252010C-R47ML-JB	0.47	27	32	5.00	4.50	3.90	3.51	138	35
JHI252010C-R68ML-JB	0.68	37	44	4.30	3.87	3.40	3.06	120	35
JHI252010C-1R0ML-JB	1.0	45	54	3.50	3.15	3.00	2.70	94	35
JHI252010C-1R5ML-JB	1.5	76	91	2.60	2.34	2.50	2.25	68	35
JHI252010C-2R2ML-JB	2.2	99	119	2.40	2.16	2.30	2.07	57	35
JHI252010C-4R7ML-JB	4.7	220	262	1.80	1.62	1.36	1.22	42	35
JHI252012C-R47ML-JB	0.47	21	25	5.30	4.95	4.60	4.18	129	39
JHI252012C-R68ML-JB	0.68	29	36	5.00	4.63	3.70	3.60	104	39
JHI252012C-1R0ML-JB	1.0	41	49	4.40	4.04	3.50	3.18	82	39
JHI252012C-1R5ML-JB	1.5	64	77	3.20	2.91	2.50	2.27	71	39
JHI252012C-2R2ML-JB	2.2	85	98	3.00	2.73	2.27	2.06	62	39
JHI252012C-4R7ML-JB	4.7	196	235	1.90	1.58	1.61	1.40	37	39

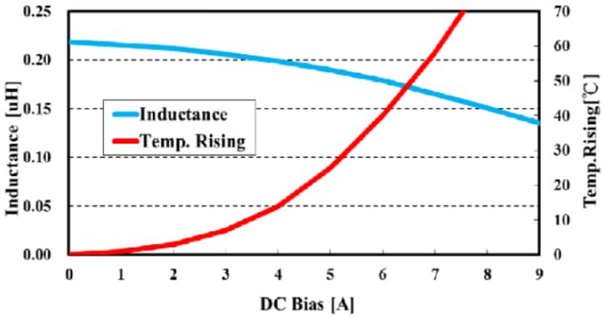
Note 1: Customized design is available, please contact us.
Note 2: All test referenced to 26 ambient
Note 3: Inductance tolerance +/- 20%
Note 4: Inductance is measured with Agilent® LCR meter 4285A. Test frequency at 1MHz.
Note 5: DC resistance is measured with HIOKI® micro-ohm meter RM3542-01.
Note 6: Isat means that DC current will cause a 30% inductance reduction form initial value.
Note 7: Irms means that DC current will cause coil temp. rising to 40 whichever is smaller.
Note 8: Temperature Specifications

Operating Temperature range : -40℃ to +125℃

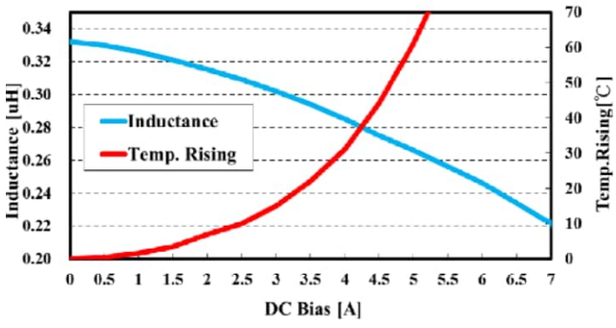
Torage Temperature range : -40℃ to +125℃

Current Characteristic

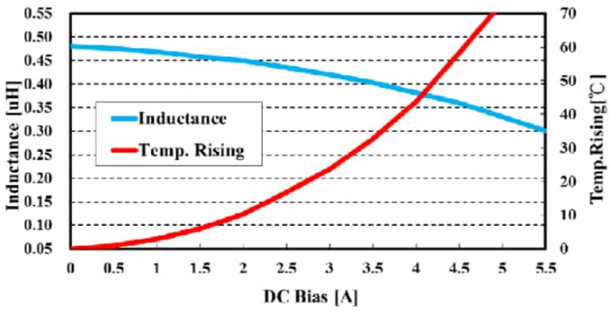
JHI252010C-R22ML-JB



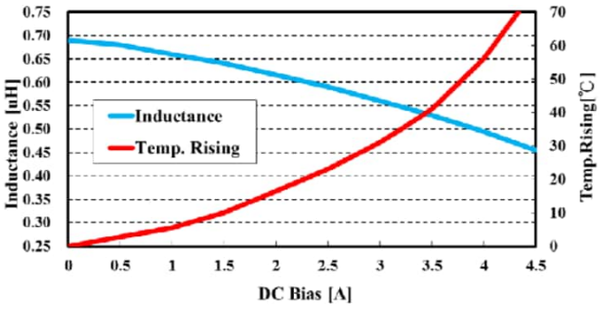
JHI252010C-R33ML-JB



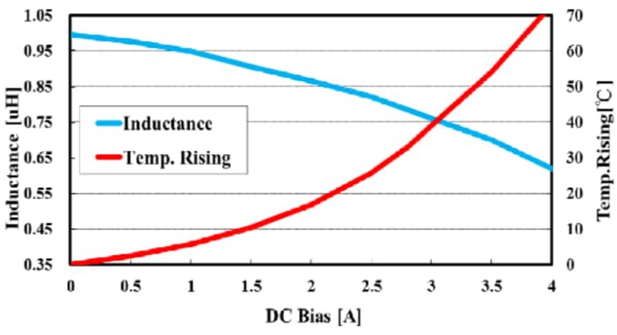
JHI252010C-R47ML-JB



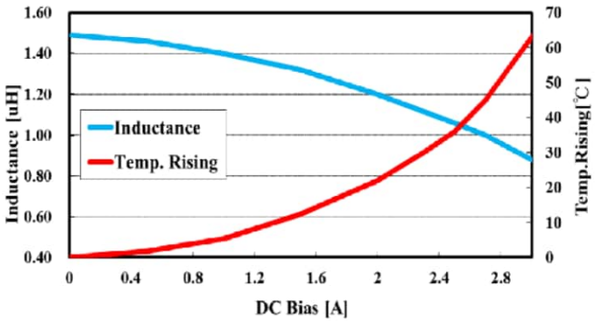
JHI252010C-R68ML-JB



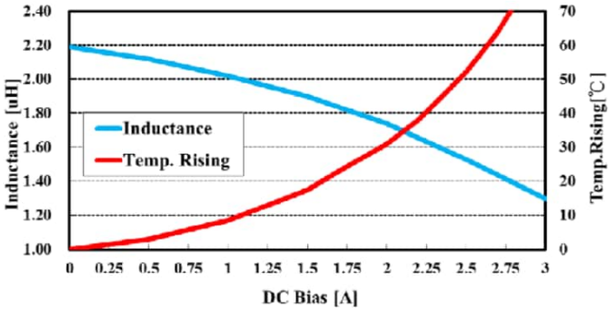
JHI252010C-1R0ML-JB



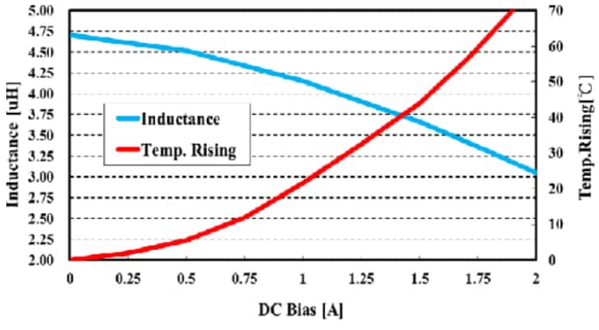
JHI252010C-1R5ML-JB



JHI252010C-2R2ML-JB



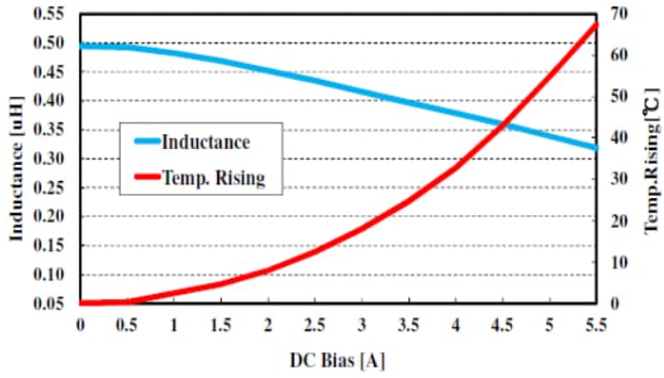
JHI252010C-4R7ML-JB



Mulitilayer Power Inductors-JHI Series

Current Characteristic

JHI252012C-R47ML-JB



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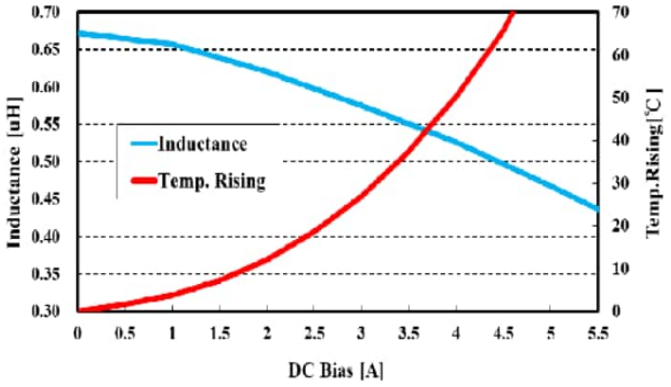

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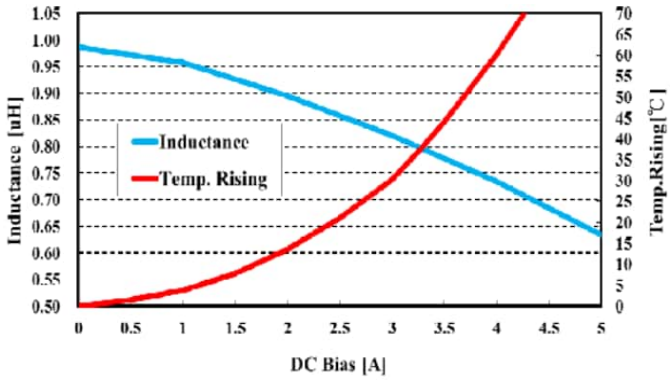

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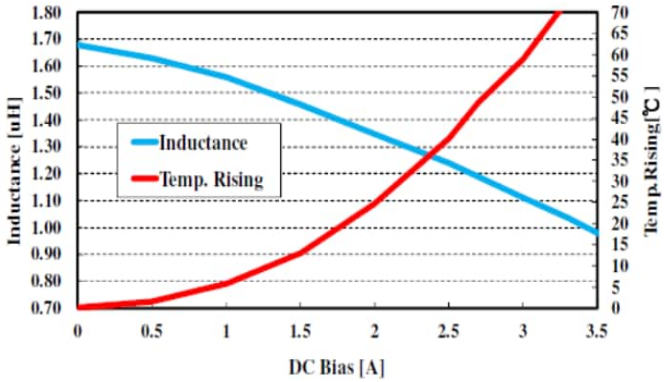

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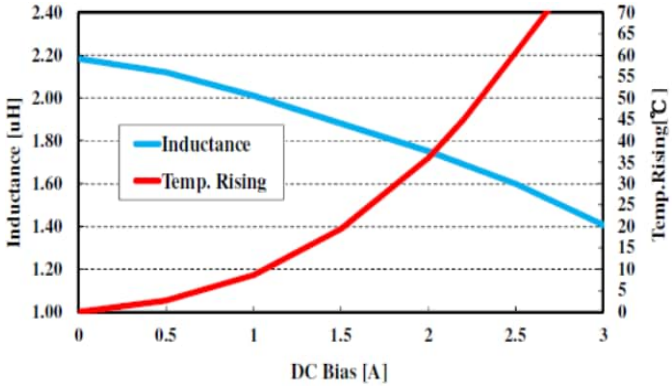
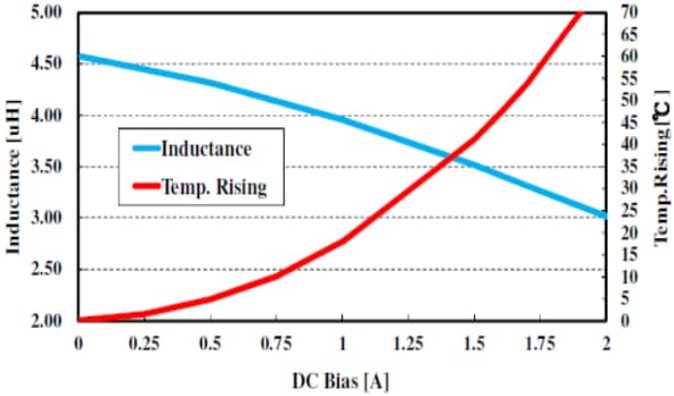
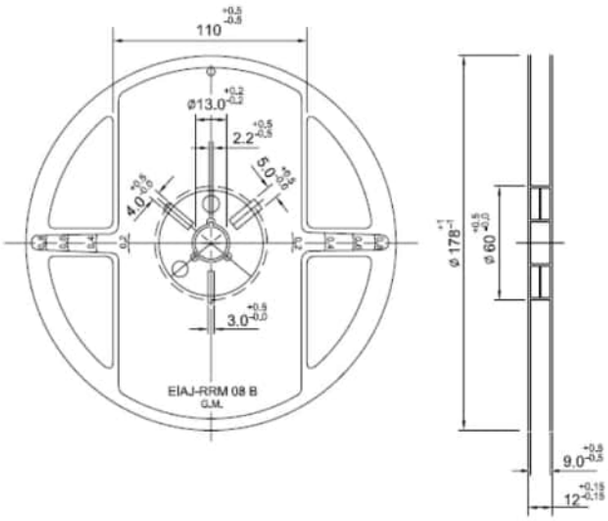


JHI252012C-4R7ML-JB

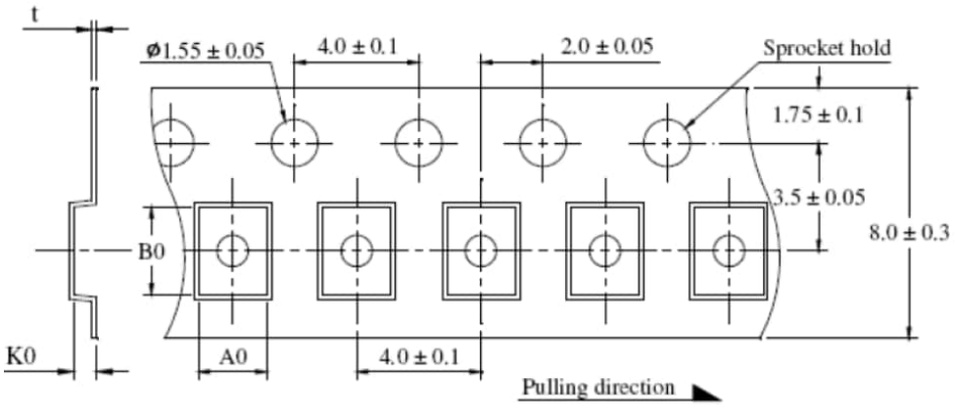


PACKAGING

REEL Dimensions (mm)



Tape Dimensions (mm)



TAPE DIMENSIONS AND PACKAGING QUANTITIES

TYPE	A0	B0	K0	t	Pcs/ Reel	Reels/Box
201610	1.80±0.1	2.20±0.1	1.15±0.1	0.22±0.05	3000	5 reels
252010	2.20±0.1	2.80±0.1	1.35±0.1	0.22±0.05	3000	5 reels
252012	2.20±0.1	3.00±0.1	1.55±0.1	0.25±0.05	3000	5 reels

Taping Package Storage Condition
Storage Temperature : 5 to 40 ℃
Relative Humidity: < 65%RH
Storage Time : 12 months max