

# DATA SHEET

**Product Name** Mini Molding Power Inductors  
**Part Name** PIM Series

DESIGNED	CHECKED	APPROVED

## Huacui Micro Inductance Electronics(Jiangsu) Co., Ltd.

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Manufacture Plant Huacui Micro Inductance Electronics(Jiangsu) Co., Ltd.

Toyoo Intelligent Equipment(Jiangsu) Co., Ltd.

Toyoo Micro Electronics( Sichuan) Co., Ltd

## 1. Scope

### Features

- 1.1 Metal material for large current and low loss.
- 1.2 High performance (Isat) realized by metal dust core.
- 1.3 Low loss realized with low Rdc.
- 1.4 Closed magnetic circuit design reduces leakage flux.
- 1.5 Vinyl thermal spray, better surface compactness.
- 1.6 Environmental requirements must comply with the QESP-44 document
- 1.7 100% lead (Pb) free meet RoHS2.0 and Halogen , Reach and other legal and regulatory requirements standard.

### Application

- 2.1 DC/DC converters.
- 2.2 Pad,Smart phone.
- 2.3 Portable gaming devices, Smart wear, Wi-Fi module.
- 2.4 Notebooks, VR, AR.
- 2.5 LCD displays, HDDs, DVCs, DSCs, etc.
- 2.6 Baseband power supply, Amplifier, Power management, Module power supply, Camera power manageme.

## 2. Ordering Procedure

**PIM**   **2016**   **10**   **S**   **1R0**   **M**   **B**   **C**   **\***  
①   ②   ③   ④   ⑤   ⑥   ⑦   ⑧   ⑨

①Series Name: Mini Molding Power Inductors

②External Dimensions(L×W):2016=2.0\*1.6 mm

③External Dimensions(H):10=1.0 mm

④Size Tolerance:S=±0.2mm D=±0.1mm

⑤Inductance value:1R0=1.0uH

⑥Tolerance:K=±10% M=±20% N=±30%

⑦Coating color:B=Black G=Gray

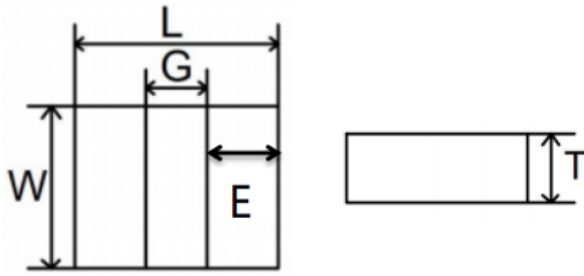
⑧Product type:C=Common

⑨Special define:A=Routine B~Z=Special

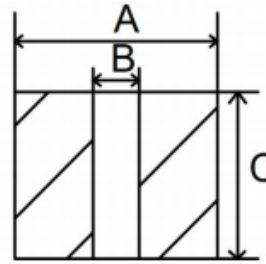
For special characteristics, please refer to the specific values in Item 5 "Specifications".

## 3. SHAPE AND DIMENSIONS

Outline Dimensions



Recommend Land Pattern Dimensions



Units:mm

Series	L	G	W	E	T	A	B	C
PIM100765D	1.0±0.1	0.4±0.2	0.7±0.1	0.30±0.2	0.65Max.	1.10	0.30	0.80
PIM121065S	1.2±0.2	0.4±0.2	1.0±0.2	0.40±0.2	0.65Max.	1.30	0.30	1.10
PIM160865D	1.6±0.1	0.6±0.2	0.8±0.1	0.50±0.2	0.65Max.	1.70	0.50	0.90
PIM160865S	1.6±0.2	0.6±0.2	0.8±0.2	0.50±0.2	0.65Max.	1.70	0.50	0.90
PIM160808S	1.6±0.2	0.6±0.2	0.8±0.2	0.50±0.2	0.80Max.	1.70	0.50	0.90
PIM141265S	1.4±0.2	0.5±0.2	1.2±0.2	0.45±0.2	0.65Max.	1.50	0.40	1.30
PIM141207S	1.4±0.2	0.5±0.2	1.2±0.2	0.45±0.2	0.70Max.	1.50	0.40	1.30
PIM141208S	1.4±0.2	0.5±0.2	1.2±0.2	0.45±0.2	0.80Max.	1.50	0.40	1.30
PIM201265S	2.0±0.2	0.6±0.2	1.2±0.2	0.70±0.2	0.65Max.	2.10	0.50	1.30
PIM201208S	2.0±0.2	0.6±0.2	1.2±0.2	0.70±0.2	0.80Max.	2.10	0.50	1.30
PIM201210S	2.0±0.2	0.6±0.2	1.2±0.2	0.70±0.2	1.00Max.	2.10	0.50	1.30
PIM201655S	2.0±0.2	0.6±0.2	1.6±0.2	0.70±0.2	0.55Max.	2.10	0.50	1.70
PIM201665S	2.0±0.2	0.6±0.2	1.6±0.2	0.70±0.2	0.65Max.	2.10	0.50	1.70
PIM201607S	2.0±0.2	0.6±0.2	1.6±0.2	0.70±0.2	0.70Max.	2.10	0.50	1.70
PIM201608S	2.0±0.2	0.6±0.2	1.6±0.2	0.70±0.2	0.80Max.	2.10	0.50	1.70
PIM201610S	2.0±0.2	0.6±0.2	1.6±0.2	0.70±0.2	1.00Max.	2.10	0.50	1.70
PIM201610D	2.0±0.1	0.6±0.2	1.6±0.1	0.70±0.2	1.00Max.	2.00	0.50	1.60
PIM201612S	2.0±0.2	0.6±0.2	1.6±0.2	0.70±0.2	1.20Max.	2.10	0.50	1.70
PIM252055S	2.5±0.2	0.8±0.2	2.0±0.2	0.85±0.2	0.55Max.	2.60	0.70	2.10
PIM252075S	2.5±0.2	0.8±0.2	2.0±0.2	0.85±0.2	0.75Max.	2.60	0.70	2.10
PIM252008S	2.5±0.2	0.8±0.2	2.0±0.2	0.85±0.2	0.80Max.	2.60	0.70	2.10
PIM252010S	2.5±0.2	0.8±0.2	2.0±0.2	0.85±0.2	1.00Max.	2.60	0.70	2.10
PIM252012S	2.5±0.2	0.8±0.2	2.0±0.2	0.85±0.2	1.20Max.	2.60	0.70	2.10
PIM322510S	3.2±0.2	1.0±0.2	2.5±0.2	1.05±0.2	1.00Max.	3.20	0.90	2.50
PIM322512S	3.2±0.2	1.0±0.2	2.5±0.2	1.05±0.2	1.20Max.	3.20	0.90	2.50
PIM322520S	3.2±0.2	1.0±0.2	2.5±0.2	1.05±0.2	2.00Max.	3.20	0.90	2.50
PIM303010D	3.0±0.1	0.9±0.2	3.0±0.1	1.00±0.2	1.00Max.	3.00	0.80	3.00

PIM303012D	3.0±0.1	0.9±0.2	3.0±0.1	1.00±0.2	1.20Max.	3.00	0.80	3.00
PIM303015D	3.0±0.1	0.9±0.2	3.0±0.1	1.00±0.2	1.50Max.	3.00	0.80	3.00
PIM303018D	3.0±0.1	0.9±0.2	3.0±0.1	1.00±0.2	1.80Max.	3.00	0.80	3.00
PIM303020D	3.0±0.1	0.9±0.2	3.0±0.1	1.00±0.2	2.00Max.	3.00	0.80	3.00
PIM404010S	4.1±0.2	1.3±0.2	4.1±0.2	1.40±0.2	1.00Max.	4.10	1.10	4.10
PIM404012S	4.1±0.2	1.3±0.2	4.1±0.2	1.40±0.2	1.20Max.	4.10	1.10	4.10
PIM404020S	4.1±0.2	1.3±0.2	4.1±0.2	1.40±0.2	2.00Max.	4.10	1.10	4.10
PIM404030S	4.1±0.2	1.3±0.2	4.1±0.2	1.40±0.2	3.00Max.	4.10	1.10	4.10

#### 4. Marking

##### No Marking

#### 5. Specifications

1>1007 Series

PIM100765(1.0\*0.7\*0.65mm)

P/N	L0(μH) @ (0A) 1MHz	Rdc(mΩ)		Heat rating current Irms(A)		Saturation current Isat(A)	
		Typical	Max	Typical	Max	Typical	Max
PIM100765D1R5MBCA	1.5	400	500	0.4	0.3	1.1	0.9
PIM100765D2R6MGCA	2.6	750	900	0.55	0.4	1.0	0.8

2>1210 Series

PIM121065(1.2\*1.0\*0.65mm)

P/N	L0(μH) @ (0A) 1MHz	Rdc(mΩ)		Heat rating current Irms(A)		Saturation current Isat(A)	
		Typical	Max	Typical	Max	Typical	Max
PIM121065S2R2MBCA	2.2	280	340	1.0	0.9	1.3	1.2

3>1608 Series

PIM160865(1.6\*0.8\*0.65mm)

P/N	L0(μH) @ (0A) 1MHz	Rdc(mΩ)		Heat rating current Irms(A)		Saturation current Isat(A)	
		Typical	Max	Typical	Max	Typical	Max
PIM160865SR22MGCA	0.22	35	43	4.0	3.5	5.0	4.5
PIM160865SR47MGCA	0.47	66	82	2.3	2.0	3.3	3.0
PIM160865SR47MGCD	0.47	65	78	2.5	3.0	3.5	3.2
PIM160865S1R0MGCA	1.0	180	200	1.8	1.5	2.4	2.0
PIM160865S1R0MGCD	1.0	140	160	2.2	1.8	2.2	2.0
PIM160865S2R2MBCA	2.2	390	430	1.3	1.1	1.6	1.3

PIM160808(1.6\*0.8\*0.8mm)

P/N	L0(μH) @ (0A) 1MHz	Rdc(mΩ)		Heat rating current Irms(A)		Saturation current Isat(A)	
		Typical	Max	Typical	Max	Typical	Max
PIM160808SR22MBCA	0.22	33	40	3.4	3.0	5.5	5.0

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PIM160808SR24MBCA	0.24	34	41	3.3	2.9	5.3	4.8
PIM160808SR24MBCD	0.24	22	26	3.9	3.5	4.9	4.4
PIM160808SR47MBCA	0.47	80	100	2.6	2.3	4.1	3.7
PIM160808SR47MBCD	0.47	38	45	3.8	3.4	4.0	3.5
PIM160808SR56MBCA	0.56	85	110	2.2	1.9	4.0	3.5
PIM160808SR56MBCD	0.56	51	63	2.5	2.2	3.0	2.7
PIM160808SR68MBCA	0.68	110	130	2.1	1.9	3.3	3.0
PIM160808S1R0MBCA	1.0	180	200	2.1	1.8	3.0	2.6
PIM160808S1R0MGCD	1.0	105	115	2.1	1.8	2.3	2.1
PIM160808S1R5MBCA	1.5	240	285	1.7	1.4	2.4	2.0
PIM160808S2R2MGCA	2.2	220	260	1.4	1.2	1.5	1.3
PIM160808S3R3MBCA	3.3	500	600	1.0	0.9	1.4	1.2
PIM160808S4R7MBCA	4.7	585	700	1.0	0.8	1.2	1.0
PIM160808S100MBCA	10.0	1450	1600	0.5	0.45	0.8	0.7

4>1412 Series

PIM141265(1.4\*1.2\*0.65mm)

P/N	L0(μH) @ (0A) 1MHz	Rdc(mΩ)		Heat rating current Irms(A)		Saturation current Isat(A)	
		Typical	Max	Typical	Max	Typical	Max
PIM141265SR33MBCA	0.33	26	32	4.4	4.2	4.4	4.0
PIM141265SR33MGCA	0.33	26	32	4.4	4.2	4.4	4.0
PIM141265SR47MBCA	0.47	37	45	3.0	2.7	3.4	3.0
PIM141265SR47MGCA	0.47	37	45	3.0	2.7	3.4	3.0
PIM141265SR47MGCB	0.47	35	38	2.9	2.6	3.9	3.6

PIM141207(1.4\*1.2\*0.7mm)

P/N	L0(μH) @ (0A) 1MHz	Rdc(mΩ)		Heat rating current Irms(A)		Saturation current Isat(A)	
		Typical	Max	Typical	Max	Typical	Max
PIM141207SR24MBCA	0.24	22	28	4.0	3.6	4.6	4.3
PIM141207SR47MBCA	0.47	34	38	3.8	3.3	3.8	3.5

PIM141208(1.4\*1.2\*0.8mm)

P/N	L0(μH) @ (0A) 1MHz	Rdc(mΩ)		Heat rating current Irms(A)		Saturation current Isat(A)	
		Typical	Max	Typical	Max	Typical	Max
PIM141208SR24MBCA	0.24	22	27	4.1	3.7	6.0	5.7
PIM141208SR24MBCD	0.24	21	24	6.6	6.0	7.2	6.5
PIM141208SR33MBCA	0.33	23	28	4.0	3.5	5.3	5.0
PIM141208SR33MGCA	0.33	23	28	4.0	3.5	5.3	5.0

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PIM141208SR47MBCA	0.47	29	35	3.8	3.3	4.6	4.2
PIM141208SR47MGCA	0.47	29	35	3.8	3.3	4.6	4.2
PIM141208S1R0MBCA	1.0	65	77	3.0	2.5	3.0	2.5

5>2012 Series  
PIM201265(2.0\*1.2\*0.65mm)

P/N	L0(μH) @ (0A) 1MHz	Rdc(mΩ)		Heat rating current Irms(A)		Saturation current Isat(A)	
		Typical	Max	Typical	Max	Typical	Max
PIM201265S1R0MBCA	1.0	78	86	2.6	2.3	2.8	2.5
PIM201265S2R2MBCA	2.2	215	230	1.7	1.4	1.8	1.5
PIM201265S2R2MBCD	2.2	175	210	1.4	1.3	1.4	1.3

PIM201208(2.0\*1.2\*0.8mm)

P/N	L0(μH) @ (0A) 1MHz	Rdc(mΩ)		Heat rating current Irms(A)		Saturation current Isat(A)	
		Typical	Max	Typical	Max	Typical	Max
PIM201208SR11MBCA	0.11	10	12	7.0	6.5	9.5	9.0
PIM201208SR15MBCA	0.15	11	13	6.8	6.3	7.5	7.0
PIM201208SR24MBCA	0.24	18	23	6.5	5.9	6.5	6.0
PIM201208SR24MGCA	0.24	18	23	6.5	5.9	6.5	6.0
PIM201208SR24MGCB	0.24	17	20	6.5	5.9	7.0	6.6
PIM201208SR33MBCA	0.33	33	45	4.3	4.0	5.2	4.8
PIM201208SR47MBCA	0.47	34	50	3.5	3.3	5.0	4.6
PIM201208SR47MGCA	0.47	34	50	3.5	3.3	5.0	4.6
PIM201208SR47MBCD	0.47	24	28	4.7	4.5	5.2	4.8
PIM201208SR68MBCA	0.68	50	60	3.7	3.3	4.2	3.7
PIM201208S1R0MBCA	1.0	55	70	3.3	2.9	4.0	3.5
PIM201208S1R0MBCD	1.0	48	55	3.2	2.8	3.2	2.8
PIM201208S1R0MGCD	1.0	48	55	3.2	2.8	3.2	2.8
PIM201208S1R5MBCA	1.5	118	135	2.2	1.9	3.0	2.5
PIM201208S2R2MBCA	2.2	160	185	2.2	1.8	2.6	2.3
PIM201208S2R2MBCB	2.2	130	156	1.8	1.6	2.2	2.0
PIM201208S3R3MBCA	3.3	253	300	1.8	1.5	1.9	1.6
PIM201208S4R7MBCA	4.7	285	325	1.7	1.5	1.6	1.4

PIM201210(2.0\*1.2\*1.0mm)

P/N	L0(μH) @ (0A) 1MHz	Rdc(mΩ)		Heat rating current Irms(A)		Saturation current Isat(A)	
		Typical	Max	Typical	Max	Typical	Max
PIM201210SR10MBCA	0.1	8.0	13	7.5	7.0	8.5	8.0

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PIM201210SR22MBCA	0.22	16	22	7.1	6.5	7.3	6.8
PIM201210SR24MBCA	0.24	17	23	7.0	6.4	7.2	6.7
PIM201210SR24MGCD	0.24	13	17	7.0	6.4	7.2	6.7
PIM201210SR33MBCA	0.33	24	32	5.5	5.0	6.5	6.0
PIM201210SR33MGCB	0.33	14	16	5.7	5.2	6.7	6.3
PIM201210SR47MBCA	0.47	29	36	4.7	4.3	5.5	5.0
PIM201210SR47MGCB	0.47	22	26	5.0	4.5	6.0	5.5
PIM201210SR68MBCA	0.68	37	43	4.3	4.0	5.0	4.5
PIM201210S1R0MBCA	1.0	55	63	3.9	3.5	4.0	3.5
PIM201210S1R0MBCD	1.0	50	55	4.0	3.5	4.0	3.5
PIM201210S1R5MBCA	1.5	76	85	3.1	2.6	3.2	2.7
PIM201210S2R2MBCA	2.2	135	150	2.0	1.7	2.7	2.4
PIM201210S3R3MBCA	3.3	210	260	1.8	1.5	2.2	1.8
PIM201210S4R7MBCA	4.7	275	300	1.6	1.4	1.8	1.6
PIM201210S6R8MBCA	6.8	440	520	1.5	1.3	1.45	1.2
PIM201210S100MBCA	10.0	600	660	1.1	1.0	1.2	1.0

### PIM201212(2.0\*1.2\*1.2mm)

P/N	L0(μH) @ (0A) 1MHz	Rdc(mΩ)		Heat rating current Irms(A)		Saturation current Isat(A)	
		Typical	Max	Typical	Max	Typical	Max
PIM201212SR11MBCA	0.11	5.5	6.2	12	11	12.0	11.0
PIM201212SR11MBCD	0.11	5.0	5.8	12	11	12.0	11.0
PIM201212SR24MBCA	0.24	13	16	7.5	7.0	9.0	8.5
PIM201212SR24MBCD	0.24	13	15	7.7	7.2	9.0	8.5
PIM201212SR47MBCA	0.47	20	23.5	6.0	5.5	5.5	5.0
PIM201212SR47MBCD	0.47	20	22	6.2	5.7	5.5	5.0
PIM201212S3R3MBCA	3.3	180	210	1.8	1.6	2.0	1.8

### 6>2016 Series

#### PIM201655(2.0\*1.6\*0.55mm)

P/N	L0(μH) @ (0A) 1MHz	Rdc(mΩ)		Heat rating current Irms(A)		Saturation current Isat(A)	
		Typical	Max	Typical	Max	Typical	Max
PIM201655SR33MBCA	0.33	34	41	4.0	3.5	4.0	3.5
PIM201655SR47MBCA	0.47	44	53	3.5	3.0	3.5	3.0

#### PIM201665(2.0\*1.6\*0.65mm)

P/N	L0(μH) @ (0A) 1MHz	Rdc(mΩ)		Heat rating current Irms(A)		Saturation current Isat(A)	
		Typical	Max	Typical	Max	Typical	Max

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PIM201665S1R0MBCA	1.0	58	70	3.5	3.0	3.0	2.7
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PIM201607(2.0\*1.6\*0.70mm)

P/N	L0( $\mu$ H) @ (0A) 1MHz	Rdc(m $\Omega$ )		Heat rating current Irms(A)		Saturation current Isat(A)	
		Typical	Max	Typical	Max	Typical	Max
PIM201607S2R2MBCA	2.2	150	175	2.1	1.8	2.3	2.0

PIM201608(2.0\*1.6\*0.8mm)

P/N	L0( $\mu$ H) @ (0A) 1MHz	Rdc(m $\Omega$ )		Heat rating current Irms(A)		Saturation current Isat(A)	
		Typical	Max	Typical	Max	Typical	Max
PIM201608SR22MBCA	0.22	14	19	6.6	5.9	6.1	5.6
PIM201608SR24MBCA	0.24	14	20	6.5	5.8	6.0	5.5
PIM201608SR33MBCA	0.33	18	24	5.5	4.8	5.8	5.3
PIM201608SR47MBCA	0.47	24	27	4.6	4.4	5.5	5.0
PIM201608SR47MGCA	0.47	24	27	4.6	4.4	5.5	5.0
PIM201608SR68MBCA	0.68	39	44	3.8	3.5	4.6	4.2
PIM201608S1R0MBCA	1.0	53	60	3.6	3.3	3.3	3.1
PIM201608S1R0MGCD	1.0	45	52	3.6	3.3	3.8	3.5
PIM201608S1R5MBCA	1.5	73	85	3.1	2.8	3.0	2.8
PIM201608S2R2MBCA	2.2	123	140	2.2	2.0	2.5	2.3
PIM201608S3R3MBCA	3.3	200	220	1.8	1.5	2.1	1.8
PIM201608S4R7MBCA	4.7	260	290	1.6	1.4	1.7	1.5
PIM201608S100MBCA	10.0	690	800	1.0	0.9	1.0	0.9

PIM201610(2.0\*1.6\*1.0mm)

P/N	L0( $\mu$ H) @ (0A) 1MHz	Rdc(m $\Omega$ )		Heat rating current Irms(A)		Saturation current Isat(A)	
		Typical	Max	Typical	Max	Typical	Max
PIM201610SR10MBCA	0.10	7.0	12	8.5	8.0	9.0	8.4
PIM201610SR11MBCA	0.11	7.5	13	8.0	7.5	8.9	8.2
PIM201610SR15MBCA	0.15	8.0	14	7.6	7.0	8.7	8.0
PIM201610SR22MBCA	0.22	11	18	6.9	6.3	8.2	7.5
PIM201610SR24MBCA	0.24	12	19	6.8	6.2	8.0	7.4
PIM201610SR24MBCD	0.24	11	14	6.8	6.2	8.0	7.4
PIM201610SR33MBCA	0.33	17	22	5.7	5.3	7.0	6.5
PIM201610SR33MGCA	0.33	17	22	5.7	5.3	7.0	6.5
PIM201610SR47MBCA	0.47	22	25	5.5	5.0	6.3	5.5
PIM201610SR47MBCB	0.47	22	25	5.8	5.6	6.5	6.0
PIM201610SR47MGCA	0.47	22	25	5.5	5.0	6.3	5.5



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PIM201610SR47MGCD	0.47	19	23	6.0	5.6	6.2	5.6
PIM201610SR68MBCA	0.68	25	32	4.6	4.3	5.2	4.7
PIM201610SR68MBCB	0.68	25	32	5.5	5.2	5.7	5.5
PIM201610S1R0MBCA	1.0	35	43	4.5	4.1	4.6	4.2
PIM201610S1R0MGCA	1.0	35	43	4.5	4.1	4.6	4.2
PIM201610S1R0MBCD	1.0	31	36	4.6	4.2	4.7	4.2
PIM201610S1R0MGCD	1.0	31	36	4.6	4.2	4.7	4.2
PIM201610S1R5MBCA	1.5	80	100	2.6	2.3	3.2	2.9
PIM201610S2R2MBCA	2.2	120	130	2.5	2.1	3.0	2.8
PIM201610S2R2MGCA	2.2	120	130	2.5	2.1	3.0	2.8
PIM201610S2R2MGCD	2.2	105	115	2.5	2.1	3.0	2.8
PIM201610D2R2MBCA	2.2	115	125	2.5	2.2	3.3	3.0
PIM201610S3R3MBCA	3.3	140	170	1.7	1.5	2.3	2.0
PIM201610D4R7MBCA	4.7	250	276	1.6	1.4	1.9	1.7
PIM201610S4R7MBCA	4.7	190	220	1.6	1.4	2.0	1.8
PIM201610S4R7MGCA	4.7	190	220	1.6	1.4	2.0	1.8
PIM201610S100MBCA	10.0	483	580	1.0	0.7	1.4	1.1

### PIM201612(2.0\*1.6\*1.2mm)

P/N	L0(μH) @ (0A) 1MHz	Rdc(mΩ)		Heat rating current Irms(A)		Saturation current Isat(A)	
		Typical	Max	Typical	Max	Typical	Max
PIM201612SR10MBCA	0.10	4.0	6.0	12	10	13	11.5
PIM201612SR11MBCA	0.11	4.8	5.6	15.5	14.5	12.5	11.0
PIM201612SR15MBCA	0.15	7.5	10	10	9.0	12	10.5
PIM201612SR24MBCA	0.24	9.0	11	9.1	8.6	9.2	8.7
PIM201612SR33MBCA	0.33	10	15	7.7	7.2	7.8	7.3
PIM201612SR47MBCA	0.47	13	17	6.7	6.0	6.7	6.0
PIM201612SR68MBCA	0.68	19	23	6.0	5.3	6.0	5.3
PIM201612S1R0MBCA	1.0	30	36	5.0	4.5	5.0	4.5
PIM201612S1R5MBCA	1.5	40	50	4.0	3.5	4.0	3.5
PIM201612S2R2MBCA	2.2	77	90	3.3	2.9	3.1	2.7
PIM201612S3R3MBCA	3.3	135	165	2.4	2.0	2.7	2.3

### 7>2520 Series

#### PIM252055S(2.5\*2.0\*0.55mm)

P/N	L0(μH) @ (0A) 1MHz	Rdc(mΩ)		Heat rating current Irms(A)		Saturation current Isat(A)	
		Typical	Max	Typical	Max	Typical	Max

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PIM252055SR47MBCA	0.47	42	49	5.5	5.2	3.5	3.2
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PIM252075S(2.5\*2.0\*0.75mm)

P/N	L0(μH) @ (0A) 1MHz	Rdc(mΩ)		Heat rating current Irms(A)		Saturation current Isat(A)	
		Typical	Max	Typical	Max	Typical	Max
PIM252075S2R2MGCA	2.2	78	90	2.3	2.0	2.6	2.4
PIM252075S100MGCA	10.0	487	530	1.1	0.9	1.1	0.9

PIM252008S(2.5\*2.0\*0.8mm)

P/N	L0(μH) @ (0A) 1MHz	Rdc(mΩ)		Heat rating current Irms(A)		Saturation current Isat(A)	
		Typical	Max	Typical	Max	Typical	Max
PIM252008SR47MBCA	0.47	22	27	6.5	6.0	6.0	5.3
PIM252008S1R0MBCA	1.0	34	40	4.3	4.0	4.5	4.0
PIM252008S1R5MBCA	1.5	64	75	3.4	3.0	3.5	3.0
PIM252008S2R2MBCA	2.2	69	77	3.0	2.6	3.0	2.6
PIM252008S3R3MBCA	3.3	150	180	2.5	2.1	2.5	2.1
PIM252008S4R7MBCA	4.7	180	215	2.0	1.5	1.9	1.5
PIM252008S100MBCA	10	500	600	1.4	1.2	1.1	0.9

PIM252010S(2.5\*2.0\*1.0mm)

P/N	L0(μH) @ (0A) 1MHz	Rdc(mΩ)		Heat rating current Irms(A)		Saturation current Isat(A)	
		Typical	Max	Typical	Max	Typical	Max
PIM252010SR22MBCA	0.22	12	17	6.8	6.5	8.6	7.9
PIM252010SR22MGCA	0.22	12	17	6.8	6.5	8.6	7.9
PIM252010SR24MBCA	0.24	12	17.5	6.7	6.4	8.5	7.8
PIM252010SR33MBCA	0.33	13	19	6.5	6.2	7.6	7.2
PIM252010SR33MGCA	0.33	13	19	6.5	6.2	7.6	7.2
PIM252010SR47MBCA	0.47	15	22	6.1	5.6	6.9	6.5
PIM252010SR47MGCA	0.47	15	22	6.1	5.6	6.9	6.5
PIM252010SR47MBCD	0.47	13	15	6.5	6.0	6.6	6.0
PIM252010SR68MBCA	0.68	23	27	5.6	5.0	5.9	5.5
PIM252010SR82MBCA	0.82	25	29	4.5	4.1	5.3	4.8
PIM252010S1R0MBCA	1.0	25	30	4.7	4.1	5.4	4.8
PIM252010S1R0MGCA	1.0	25	30	4.7	4.1	5.4	4.8
PIM252010S1R5MBCA	1.5	45	55	3.4	3.0	4.3	3.9
PIM252010S1R5MGCA	1.5	45	55	3.4	3.0	4.3	3.9
PIM252010S2R2MBCA	2.2	62	70	2.4	2.1	3.3	3.0

PIM252010S2R2MGCA	2.2	62	70	2.4	2.1	3.3	3.0
PIM252010S2R2MBCB	2.2	62	70	2.6	2.3	3.7	3.3
PIM252010S2R2MBCD	2.2	62	70	4.0	3.2	3.4	3.1
PIM252010S3R3MBCA	3.3	86	100	2.5	2.1	2.8	2.5
PIM252010S3R3MGCA	3.3	86	100	2.5	2.1	2.8	2.5
PIM252010S4R7MBCA	4.7	160	180	2.0	1.6	2.6	2.0
PIM252010S4R7MGCA	4.7	160	180	2.0	1.6	2.6	2.0
PIM252010S4R7MBCD	4.7	145	160	2.0	1.6	2.6	2.0
PIM252010S6R8MBCA	6.8	270	320	1.6	1.4	2.4	1.9
PIM252010S100MBCA	10.0	500	560	1.05	0.95	1.55	1.4
PIM252010S100MGCA	10.0	500	560	1.05	0.95	1.55	1.4
PIM252010S220MGCA	22.0	1100	1300	0.85	0.6	1.1	0.9

PIM252012S(2.5\*2.0\*1.2mm)

P/N	L( $\mu$ H) @ (0A) 1MHz	Rdc(m $\Omega$ )		Heat rating current Irms(A)		Saturation current Isat(A)	
		Typical	Max	Typical	Max	Typical	Max
PIM252012SR10MBCA	0.1	6	10	12	10.5	13.5	12.5
PIM252012SR15MBCA	0.15	7	11	11.5	10	13.0	12.0
PIM252012SR22MBCA	0.22	9	14	8.2	7.6	9.6	9.0
PIM252012SR22MBCD	0.22	8	10	11	8.0	12	10
PIM252012SR24MBCA	0.24	10	15	8.0	7.5	9.3	8.8
PIM252012SR24MGCA	0.24	10	15	8.0	7.5	9.3	8.8
PIM252012SR33MBCA	0.33	11	17	6.8	6.4	8.3	7.8
PIM252012SR47MBCA	0.47	13	19	6.5	6.0	7.5	7.0
PIM252012SR47MBCD	0.47	11	13	8.0	7.5	8.5	8.0
PIM252012SR47MGCD	0.47	11	13	8.0	7.5	8.5	8.0
PIM252012SR68MBCA	0.68	17	23	6.3	5.5	6.5	6.0
PIM252012SR68MBCD	0.68	15	18	7.5	7.0	6.7	6.0
PIM252012SR82MBCA	0.82	19	24	5.8	5.3	6.5	5.8
PIM252012S1R0MBCA	1.0	35	42	4.0	3.6	5.6	5.0
PIM252012S1R0MBCD	1.0	16	22	5.2	4.5	6.5	6.0
PIM252012S1R0MGCD	1.0	16	22	5.2	4.5	6.5	6.0
PIM252012S1R0MBCF	1.0	30	36	5.5	5.0	5.6	5.0
PIM252012S1R2MBCA	1.2	40	45	3.8	3.4	4.5	4.1
PIM252012S1R5MBCA	1.5	44	50	3.7	3.2	4.5	4.1
PIM252012S1R5MBCD	1.5	27	32	4.6	4.2	4.7	4.4
PIM252012S1R5MGCA	1.5	44	50	3.7	3.2	4.5	4.1

PIM252012S2R2MBCA	2.2	55	65	3.0	2.7	3.8	3.3
PIM252012S2R2MGCA	2.2	55	65	3.0	2.7	3.8	3.3
PIM252012S3R3MBCA	3.3	80	97	2.3	1.8	3.0	2.7
PIM252012S4R7MBCA	4.7	150	170	1.8	1.5	2.4	2.1
PIM252012S4R7MGCA	4.7	150	170	1.8	1.5	2.4	2.1
PIM252012S6R8MBCA	6.8	245	270	1.6	1.4	2.0	1.7
PIM252012S100MBCA	10.0	330	400	1.2	1.05	1.6	1.45
PIM252012S100MGCA	10.0	330	400	1.2	1.05	1.6	1.45
PIM252012S220MBCA	22.0	740	800	1.2	1.1	1.1	1.0

8>3225 Series  
PIM322510S(3.2\*2.5\*1.0mm)

P/N	L0(μH) @ (0A) 1MHz	Rdc(mΩ)		Heat rating current Irms(A)		Saturation current Isat(A)	
		Typical	Max	Typical	Max	Typical	Max
PIM322510SR22MBCA	0.22	9	11	8.5	8.0	8.5	8.0
PIM322510SR33MBCA	0.33	11	15	8.3	7.8	8.3	7.8
PIM322510SR47MBCA	0.47	17	22	6.4	5.9	8.3	7.6
PIM322510SR68MBCA	0.68	22	28	6.2	5.7	7.5	7.0
PIM322510S1R0MBCA	1.0	25	30	5.4	4.9	6.0	5.3
PIM322510S1R5MBCA	1.5	34	42	4.0	3.6	5.0	4.4
PIM322510S2R2MBCA	2.2	55	66	3.7	3.4	4.0	3.5
PIM322510S3R3MBCA	3.3	105	120	2.7	2.3	3.7	3.3
PIM322510S4R7MBCA	4.7	125	140	2.3	1.9	2.8	2.5
PIM322510S6R8MBCA	6.8	290	320	1.9	1.6	2.4	2.0
PIM322510S100MBCA	10.0	325	365	2.2	1.8	2.2	1.8

PIM322512S(3.2\*2.5\*1.2mm)

P/N	L0(μH) @ (0A) 1MHz	Rdc(mΩ)		Heat rating current Irms(A)		Saturation current Isat(A)	
		Typical	Max	Typical	Max	Typical	Max
PIM322512SR10MBCA	0.10	5.2	7.0	12.0	11.0	18.0	16.5
PIM322512SR22MBCA	0.22	6.6	10	9.2	8.7	11.5	11.0
PIM322512SR22MGCA	0.22	6.6	10	9.2	8.7	11.5	11.0
PIM322512SR24MBCA	0.24	7.0	12	9.0	8.5	11	10.5
PIM322512SR33MBCA	0.33	9.0	14	8.4	8.1	10	9.5
PIM322512SR47MBCA	0.47	14	19	7.5	7.2	8.6	8.2
PIM322512SR47MGCA	0.47	14	19	7.5	7.2	8.6	8.2
PIM322512SR47MBCD	0.47	11	14	7.5	7.2	8.6	8.2

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PIM322512SR68MBCA	0.68	18	23	7.3	6.8	8.1	7.7
PIM322512SR68MBCD	0.68	12	15	7.0	6.5	8.0	7.5
PIM322512S1R0MBCA	1.0	26	30	5.3	4.8	6.6	5.8
PIM322512S1R0MGCA	1.0	26	30	5.3	4.8	6.6	5.8
PIM322512S1R0MBCD	1.0	18	21	5.5	5.0	7.7	7.0
PIM322512S1R5MBCA	1.5	37	44	4.7	4.3	5.1	4.7
PIM322512S2R2MBCA	2.2	58	70	3.6	3.0	4.6	4.2
PIM322512S2R2MBCD	2.2	42	50	4.2	3.7	5.0	4.5
PIM322512S2R2MGCD	2.2	42	50	4.2	3.7	5.0	4.5
PIM322512S3R3MBCA	3.3	75	95	2.9	2.5	3.7	3.2
PIM322512S3R3MGCA	3.3	75	95	2.9	2.5	3.7	3.2
PIM322512S3R3MGCD	3.3	62	67	2.9	2.5	3.7	3.2
PIM322512S4R7MBCA	4.7	115	135	2.3	2.0	2.9	2.6
PIM322512S4R7MBCF	4.7	105	120	2.5	2.1	3.0	2.6
PIM322512S4R7MBCB	4.7	115	135	2.3	2.0	3.2	2.8
PIM322512S6R8MBCA	6.8	177	210	2.1	1.9	2.8	2.4
PIM322512S100MBCA	10.0	210	230	2.2	1.8	2.3	1.9

### PIM322520S(3.2\*2.5\*2.0mm)

P/N	L0(μH) @ (0A) 1MHz	Rdc(mΩ)		Heat rating current Irms(A)		Saturation current Isat(A)	
		Typical	Max	Typical	Max	Typical	Max
PIM322520SR33MBCA	0.33	7.5	9	9.5	9	15.5	14
PIM322520SR47MBCA	0.47	9	10.5	9.5	8.5	15	13
PIM322520SR68MBCA	0.68	12.5	14.5	9.0	8.0	13	11
PIM322520S1R0MBCA	1.0	15	17.5	8.2	7.5	9.0	8.3
PIM322520S1R5MBCA	1.5	22	25	6.5	6.0	6.8	6.0
PIM322520S2R2MBCA	2.2	36	43	5.4	4.8	6.5	5.5
PIM322520S3R3MBCA	3.3	55	60	4.5	4.0	4.5	3.5
PIM322520S4R7MBCA	4.7	81	94	3.5	3.0	4.0	3.0
PIM322520S6R8MBCA	6.8	101	125	2.8	2.3	3.8	2.9

### 9>3030 Series

#### PIM303010(3.0\*3.0\*1.0mm)

P/N	L0(μH) @ (0A) 1MHz	Rdc(mΩ)		Heat rating current Irms(A)		Saturation current Isat(A)	
		Typical	Max	Typical	Max	Typical	Max
PIM303010D6R8MBCA	6.8	225	270	2.1	1.8	1.8	1.5
PIM303010D100MBCA	10.0	320	360	2.0	1.7	1.6	1.3

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PIM303012(3.0\*3.0\*1.2mm)

P/N	L0( $\mu$ H) @ (0A) 1MHz	Rdc(m $\Omega$ )		Heat rating current Irms(A)		Saturation current Isat(A)	
		Typical	Max	Typical	Max	Typical	Max
PIM303012D1R0MBCA	1.0	23	27	5.5	5.0	6.0	5.5
PIM303012D4R7MBCA	4.7	100	120	3.0	2.5	3.0	2.5
PIM303012D100MBCA	10.0	192	220	2.3	1.9	2.3	2.0
PIM303012D150MBCA	15.0	345	380	1.6	1.3	1.9	1.6

PIM303015(3.0\*3.0\*1.5mm)

P/N	L0( $\mu$ H) @ (0A) 1MHz	Rdc(m $\Omega$ )		Heat rating current Irms(A)		Saturation current Isat(A)	
		Typical	Max	Typical	Max	Typical	Max
PIM303015DR15MBCA	0.15	5.0	6.0	12.0	11.0	16.0	15.0
PIM303015DR47MBCA	0.47	9	11	9.0	8.0	10.0	9.0
PIM303015D1R0MBCA	1.0	18	22	6.0	5.5	7.0	6.5
PIM303015D2R2MBCA	2.2	42	50	4.5	4.0	5.0	4.5
PIM303015D4R7MBCA	4.7	87	104	3.5	3.0	4.0	3.5
PIM303015D6R8MBCA	6.8	160	180	2.5	2.0	3.5	3.0
PIM303015D100MBCA	10.0	185	215	2.0	1.5	2.8	2.5
PIM303015D220MBCA	22.0	580	700	1.2	1.0	1.6	1.2

PIM303018(3.0\*3.0\*1.8mm)

P/N	L0( $\mu$ H) @ (0A) 1MHz	Rdc(m $\Omega$ )		Heat rating current Irms(A)		Saturation current Isat(A)	
		Typical	Max	Typical	Max	Typical	Max
PIM303018DR22MBCA	0.22	5.5	7.0	10.0	9.0	17	16
PIM303018DR47MBCA	0.47	8	10	9.0	8.0	12	11
PIM303018D1R0MBCA	1.0	15	21	6.3	5.8	7.6	6.8
PIM303018D1R5MBCA	1.5	20	26	6.8	6.4	8.0	7.0
PIM303018D4R7MBCA	4.7	72	87	3.4	3.0	4.7	4.2

PIM303020(3.0\*3.0\*2.0mm)

P/N	L0( $\mu$ H) @ (0A) 1MHz	Rdc(m $\Omega$ )		Heat rating current Irms(A)		Saturation current Isat(A)	
		Typical	Max	Typical	Max	Typical	Max
PIM303020DR15MBCA	0.15	4.0	5.0	13.0	12.0	18.0	17.0
PIM303020DR33MBCA	0.33	7.5	9	10.0	9.0	17	15
PIM303020DR50MBCA	0.5	9.0	12	9.0	8.0	15	13
PIM303020DR68MBCA	0.68	13	16	8.5	7.8	13	11
PIM303020D1R0MBCA	1.0	14	20	6.5	6.0	8.0	7.3

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PIM303020D1R5MBCA	1.5	19	25	6.3	5.8	7.0	6.5
PIM303020D2R2MBCA	2.2	37	45	4.7	4.3	6.0	5.5
PIM303020D3R3MBCA	3.3	52	63	4.5	4.0	5.9	5.4
PIM303020D4R7MBCA	4.7	60	73	4.2	3.8	4.8	4.0
PIM303020D6R8MBCA	6.8	107	135	3.2	3.0	4.5	3.8
PIM303020D100MBCA	10.0	135	160	2.5	2.2	3.8	3.3
PIM303020D150MBCA	15.0	235	260	1.8	1.5	2.6	2.2

10>4040 Series  
PIM404010(4.0\*4.0\*1.0mm)

P/N	L0(μH) @ (0A) 1MHz	Rdc(mΩ)		Heat rating current Irms(A)		Saturation current Isat(A)	
		Typical	Max	Typical	Max	Typical	Max
PIM404010S100MBCA	10	220	280	2.5	2.0	2.2	2.0

PIM404012(4.0\*4.0\*1.2mm)

P/N	L0(μH) @ (0A) 1MHz	Rdc(mΩ)		Heat rating current Irms(A)		Saturation current Isat(A)	
		Typical	Max	Typical	Max	Typical	Max
PIM404012SR47MBCA	0.47	11.5	14	9.0	8.5	12	11.5
PIM404012SR68MBCA	0.68	15	18	8.5	7.5	10	9.0
PIM404012S1R0MBCA	1.0	21	25	6.3	5.5	11	10
PIM404012S1R5MBCA	1.5	29	34.5	6.0	5.0	8.0	7.0
PIM404012S2R2MBCA	2.2	45	55	5.0	4.5	6.5	6.0
PIM404012S3R3MBCA	3.3	67	80	4.5	4.0	5.5	5.0
PIM404012S4R7MBCA	4.7	90	110	3.5	3.0	5.0	4.5
PIM404012S5R6MBCA	5.6	116	140	3.0	2.5	4.5	4.0
PIM404012S6R8MBCA	6.8	132	160	2.8	2.3	3.8	3.5
PIM404012S100MBCA	10.0	200	235	2.5	2.0	2.8	2.5

PIM404020(4.0\*4.0\*2.0mm)

P/N	L0(μH) @ (0A) 1MHz	Rdc(mΩ)		Heat rating current Irms(A)		Saturation current Isat(A)	
		Typical	Max	Typical	Max	Typical	Max
PIM404020SR33MBCA	0.33	5.0	6.0	9.5	8.5	18.0	17.0
PIM404020SR47MGCA	0.47	7.0	8.5	8.5	8.0	16.0	15.0
PIM404020S1R0MGCA	1.0	12	14.5	6.5	6.0	12.5	11.5
PIM404020S1R5MGCA	1.5	18	22	6.0	5.5	10.5	9.5
PIM404020S2R2MGCA	2.2	30	36	5.5	5.0	9.5	8.5
PIM404020S3R3MGCA	3.3	35	40	6.3	5.8	8.0	7.0
PIM404020S4R7MGCA	4.7	47	58	5.0	4.0	6.3	5.5

PIM404020S6R8MGCA	6.8	90	105	3.7	3.2	5.4	4.5
PIM404020S100MGCA	10	113	135	3.4	3.0	4.9	4.0
PIM404020S150MGCA	15	210	250	2.3	1.7	3.5	3.0
PIM404020S220MGCA	22	275	330	1.8	1.3	2.9	2.3

PIM404030(4.0\*4.0\*3.0mm)

P/N	L0( $\mu$ H) @ (0A) 1MHz	Rdc(m $\Omega$ )		Heat rating current Irms(A)		Saturation current Isat(A)	
		Typical	Max	Typical	Max	Typical	Max
PIM404030SR47MBCA	0.47	5.5	7.0	15	14	23	21
PIM404030SR68MBCA	0.68	8.3	10	9.5	8.0	17	15
PIM404030S1R0MGCA	1.0	10	12	10	9.0	15.5	14
PIM404030S1R5MGCA	1.5	15	18	6.5	6.0	12.5	11
PIM404030S2R2MGCA	2.2	19	22	9.0	8.5	10.5	9.5
PIM404030S3R3MGCA	3.3	30	35	5.3	4.8	8.5	7.5
PIM404030S4R7MGCA	4.7	41	46	4.3	4.0	7.0	6.0
PIM404030S6R8MBCA	6.8	51	62	4.2	3.8	6.3	5.1

## Test remarks

Note 1.: All test data is referenced to 25 °C ambient.

Note 2.: Test Condition:1MHz, 1.0Vrms.

Note 3.: Irms:DC current (A) that will cause an approximate  $\Delta$ T of 40 °C.

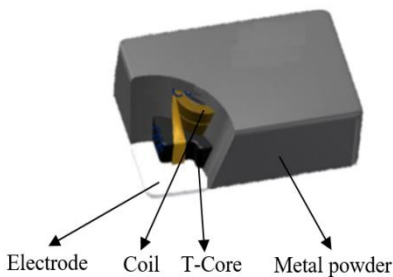
Note 4.: Isat:DC current (A) that will cause L0 to drop approximately 30%.

Note 5.: Operating Temperature Range -55°C to + 125°C.

Note 6.: The part temperature (ambient + temp rise) should not exceed 125 under °C the worst case operating conditions. Circuit design, component placement, PCB trace size and thickness, airflow and other cooling provision all affect the part temperature. Part temperature should be verified in the end application.

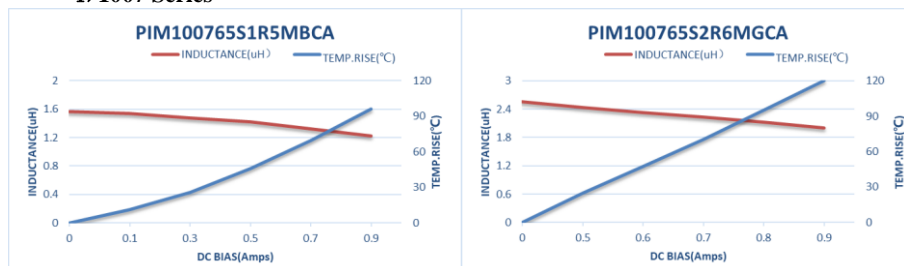
Note 7.: The rated current as listed is either the saturation current or the heating current depending on which value is lower.

## 6. Structure



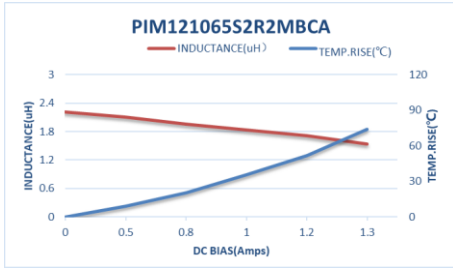
## 7. Current Characteristic

### 1>1007 Series

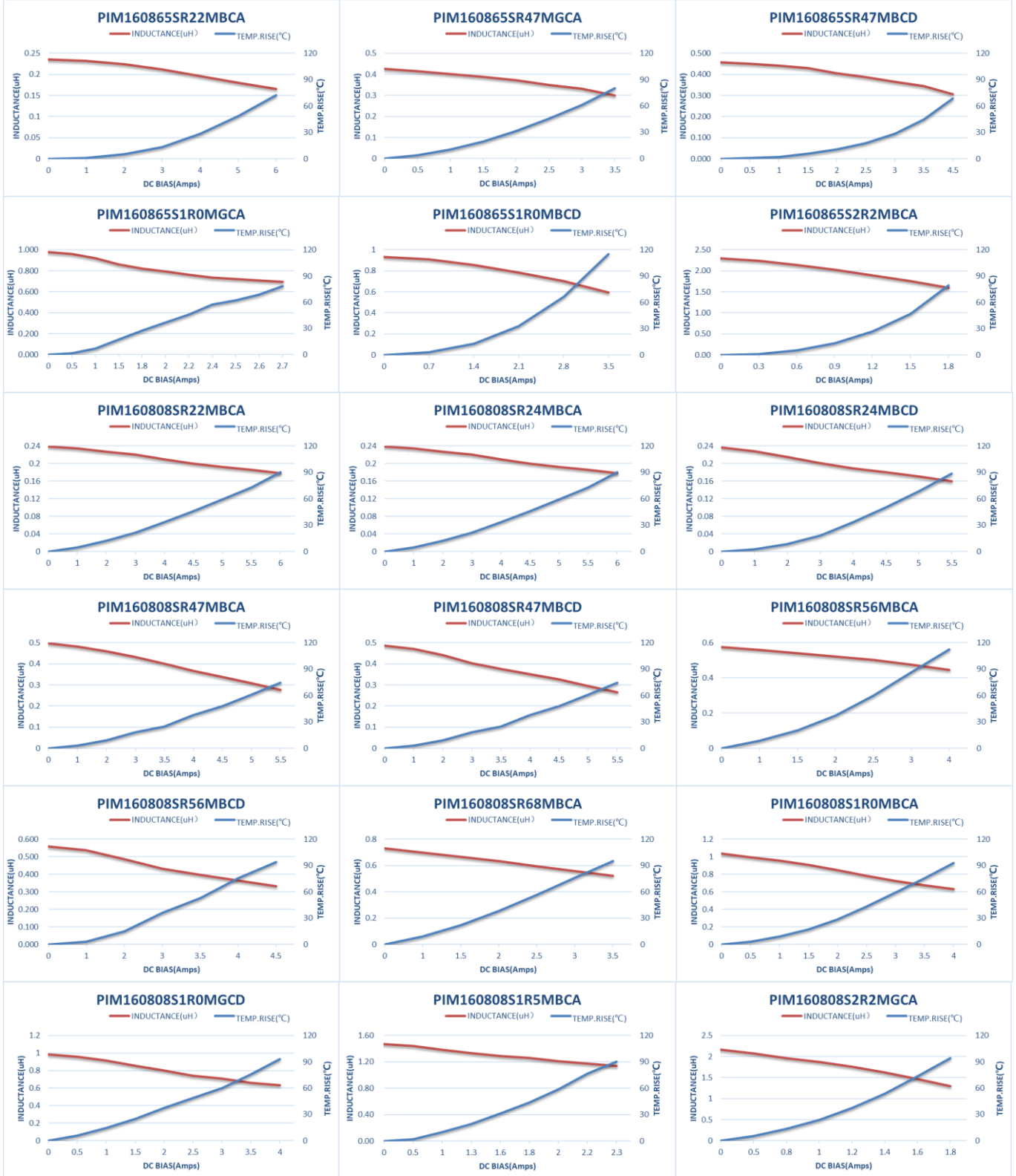


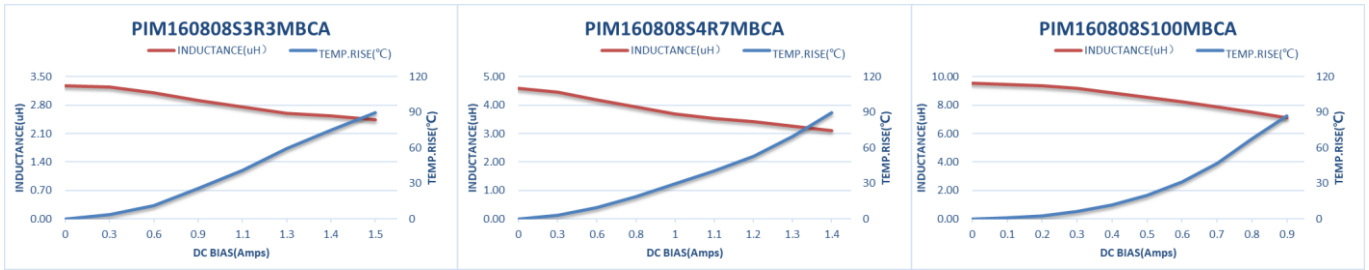
### 2>1210 Series



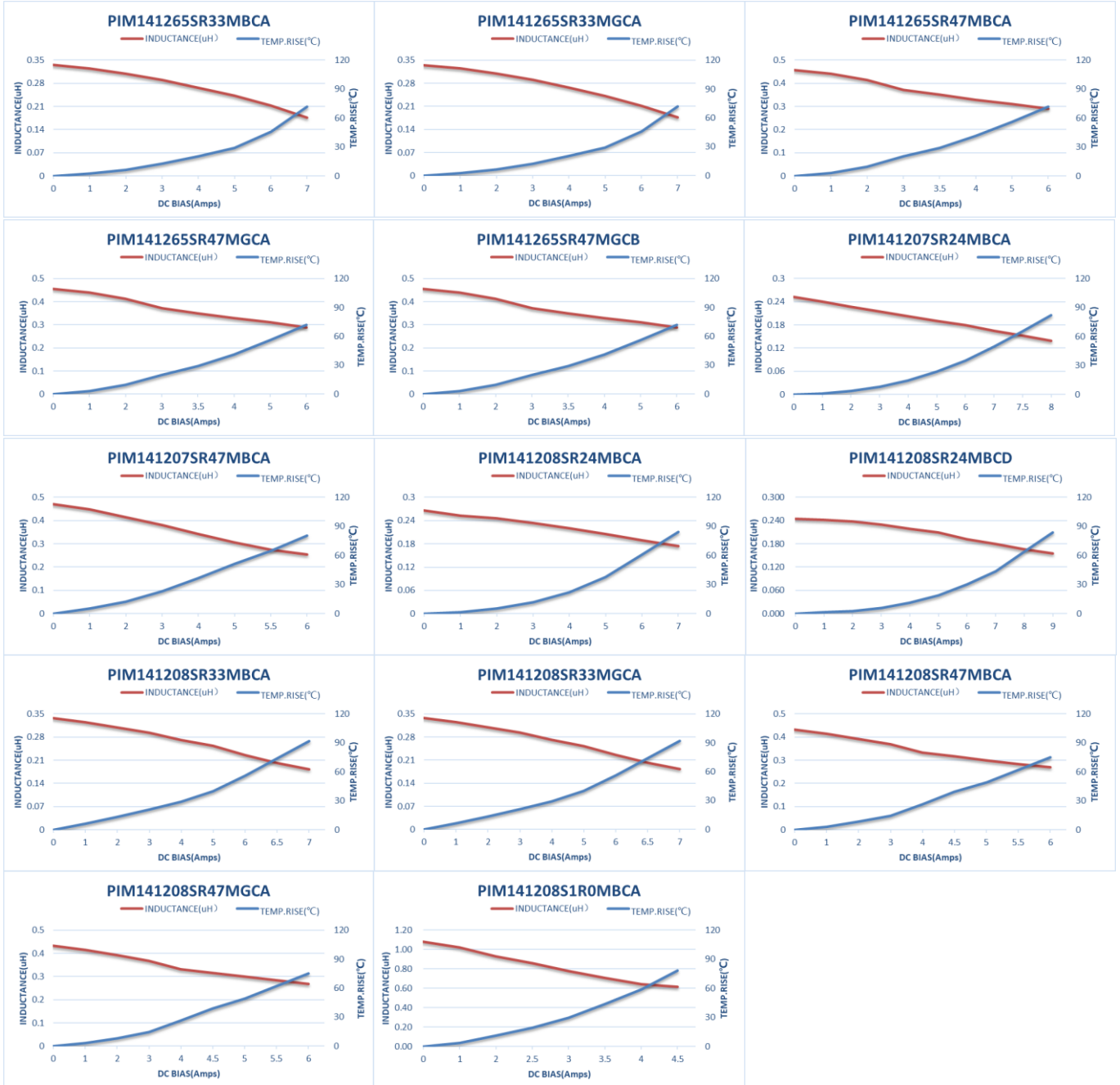


### 3>1608 Series

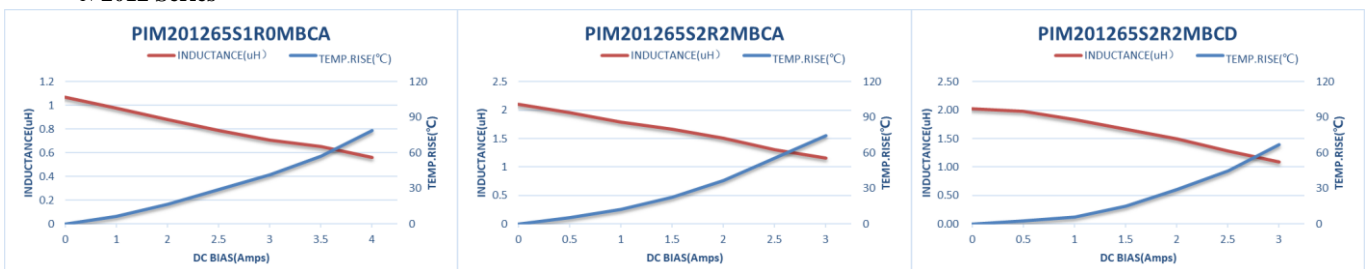


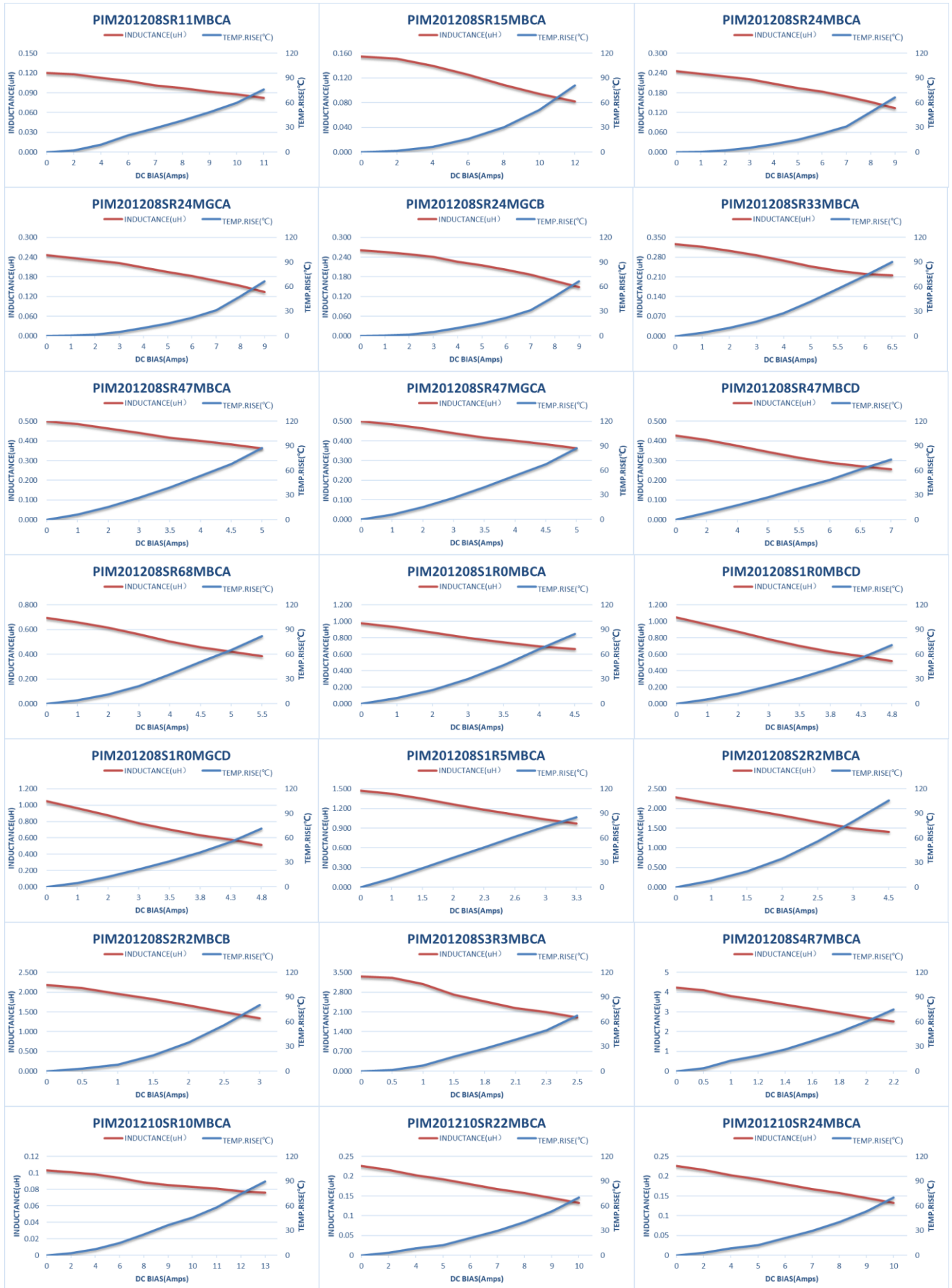


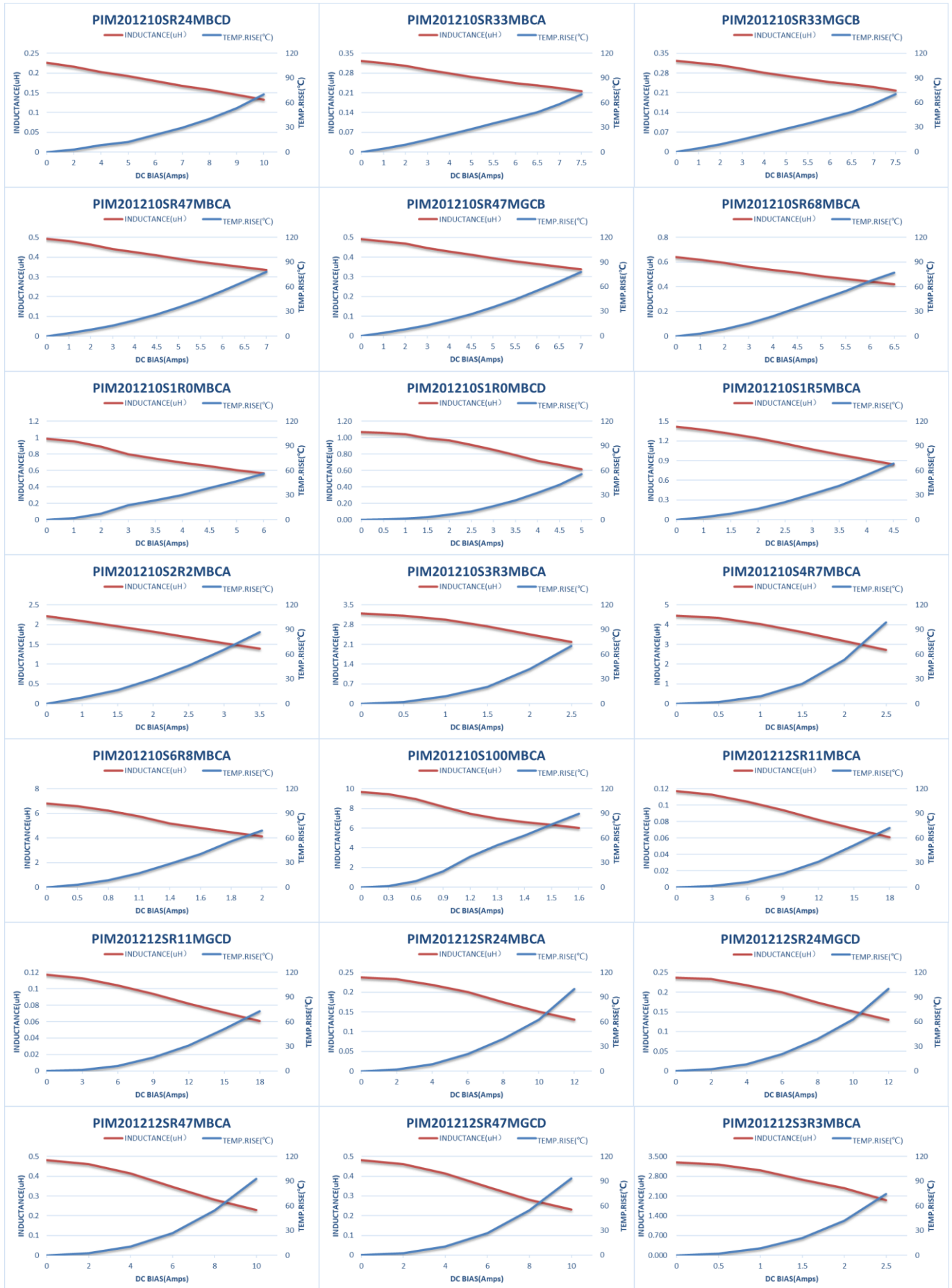
## 4>1412 Series



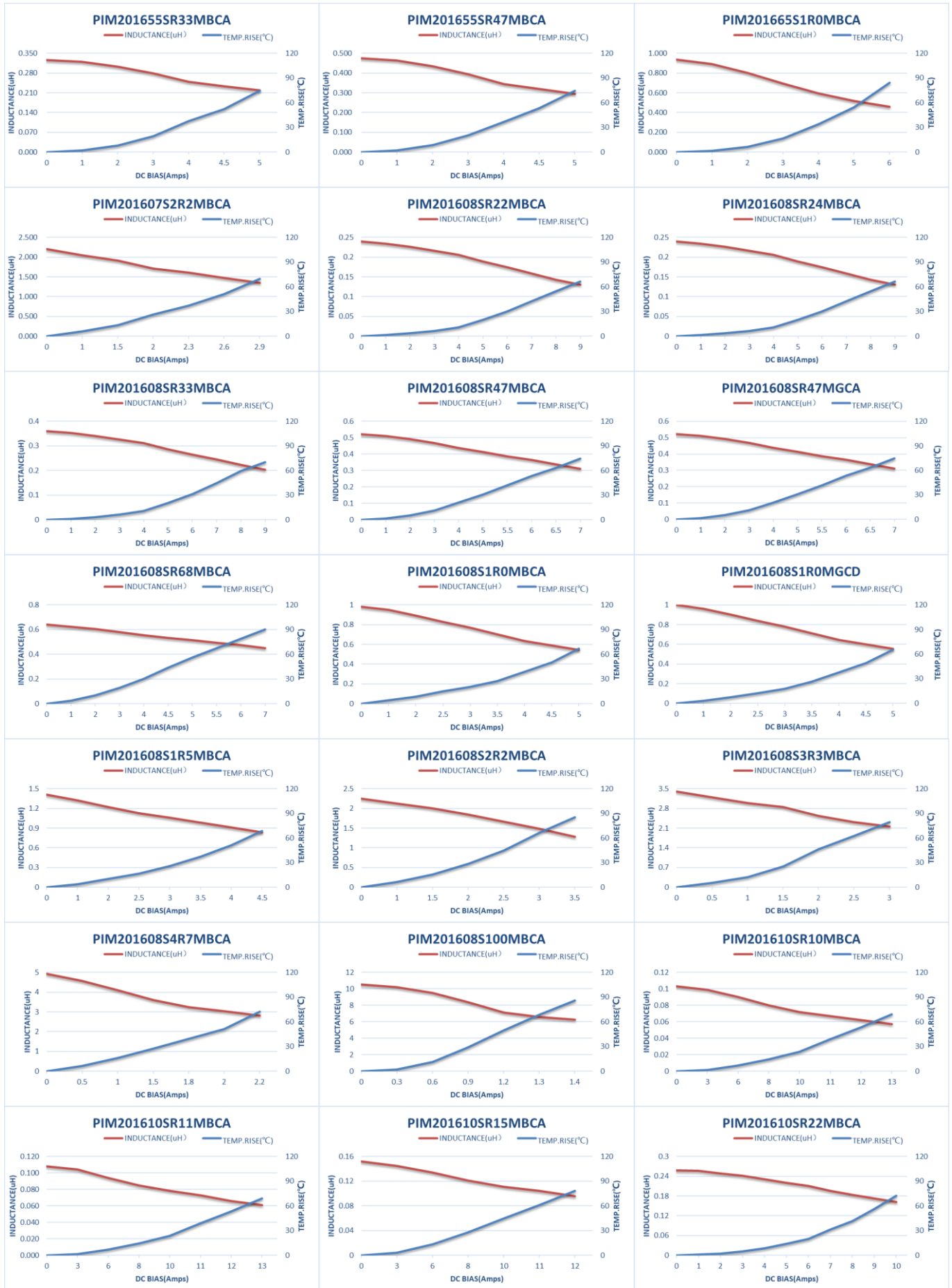
## 5>2012 Series

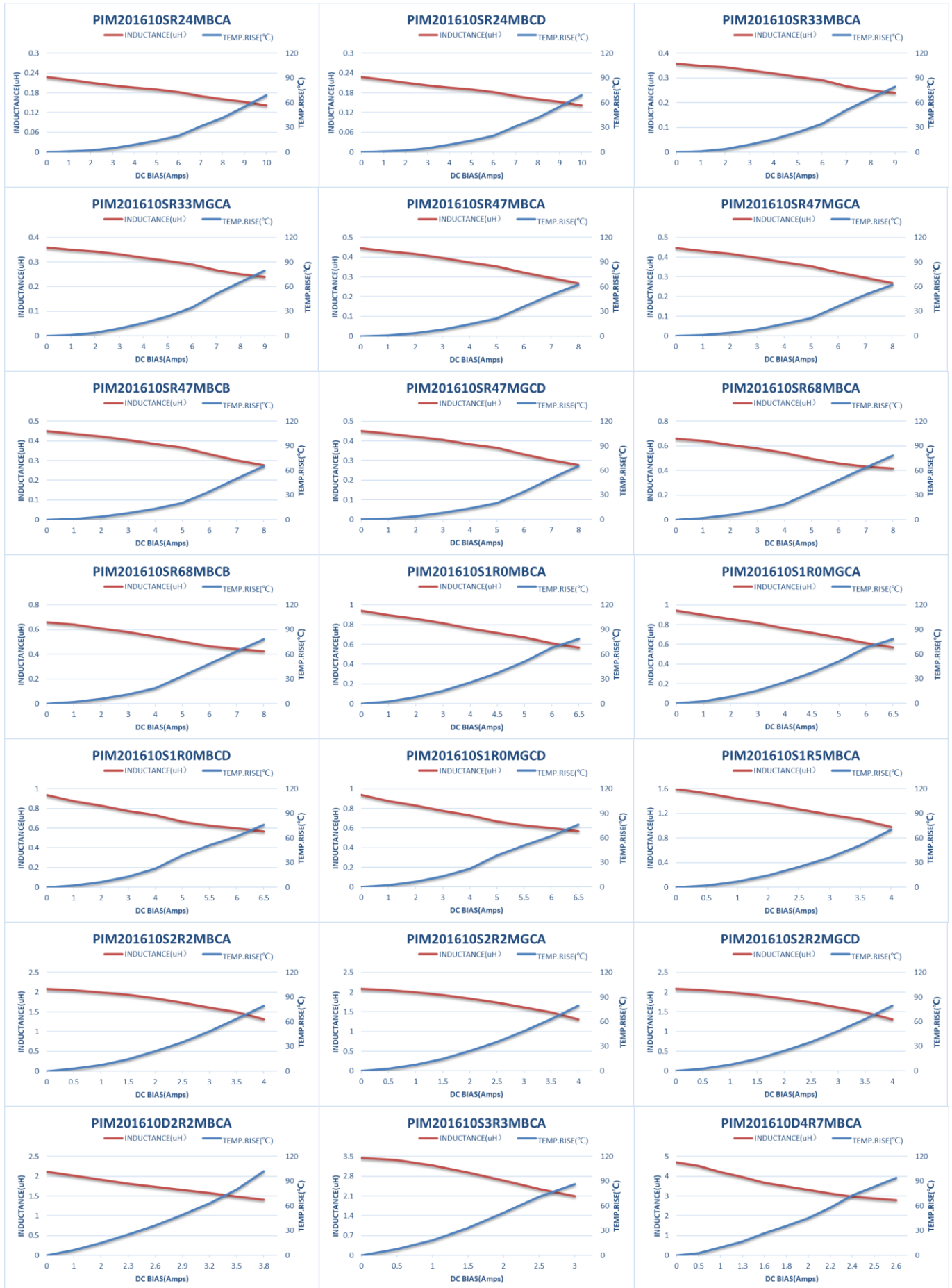


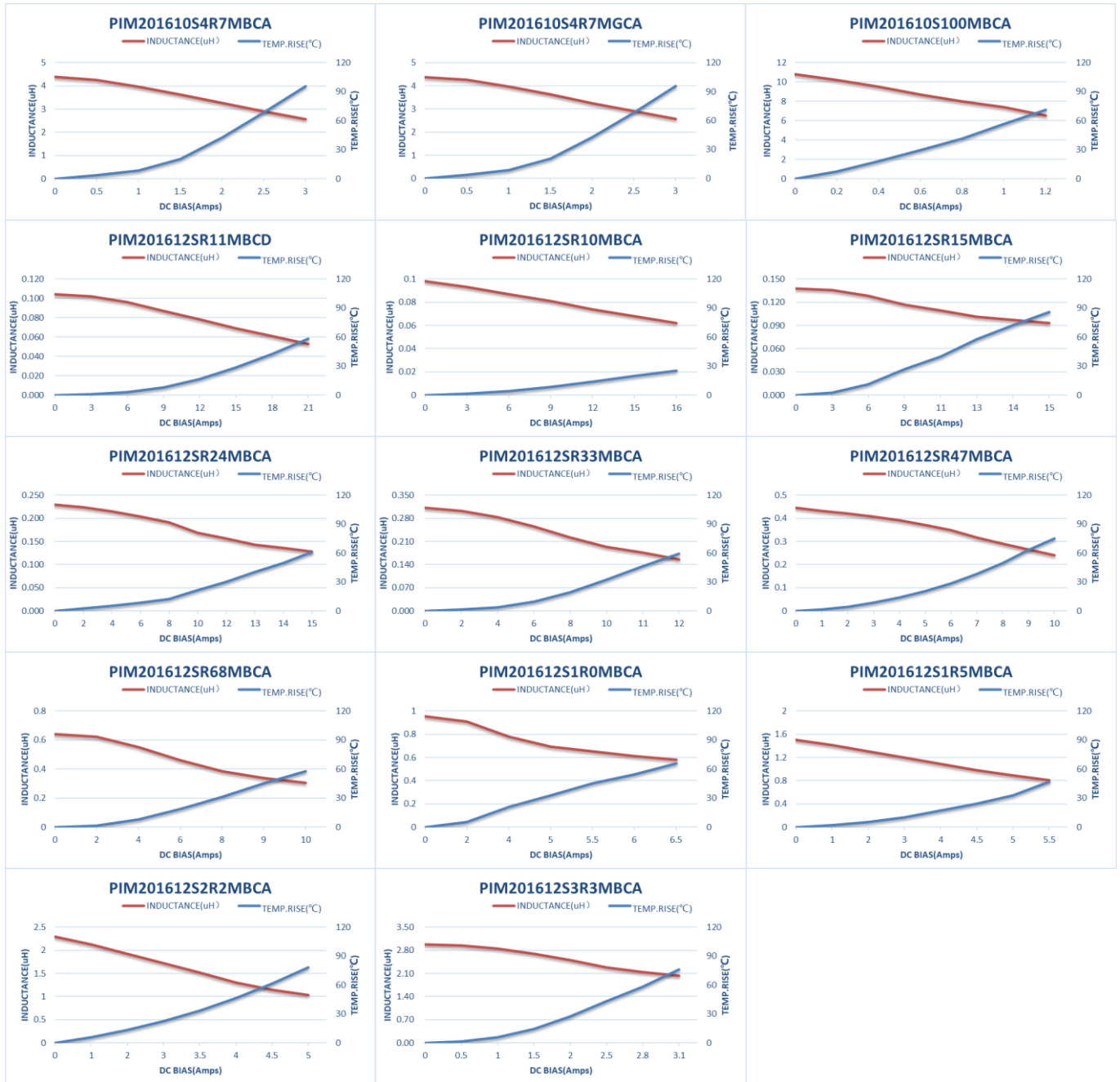




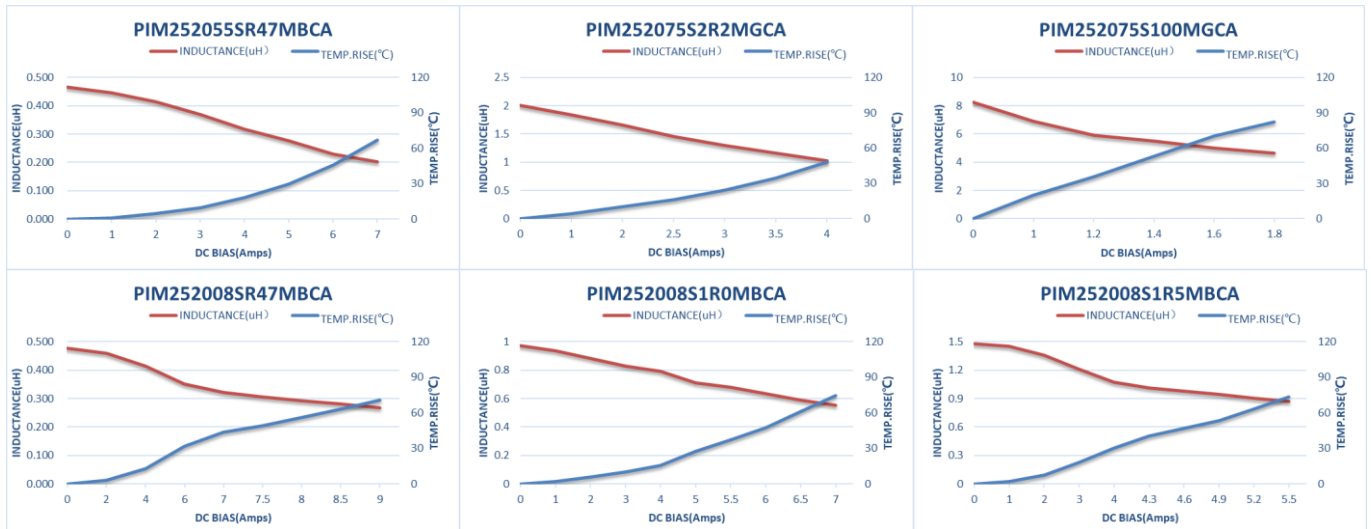
6>2016 Series

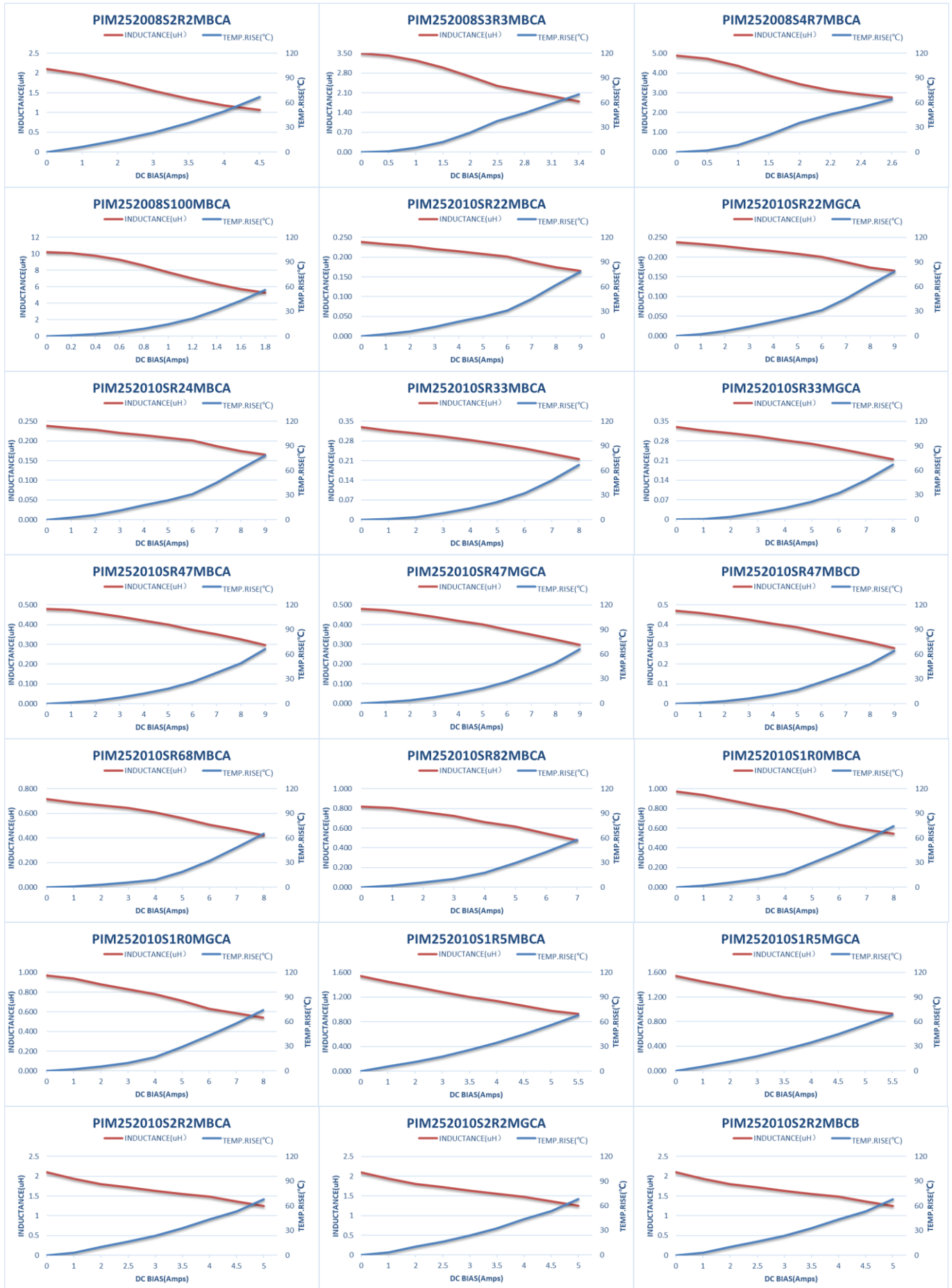




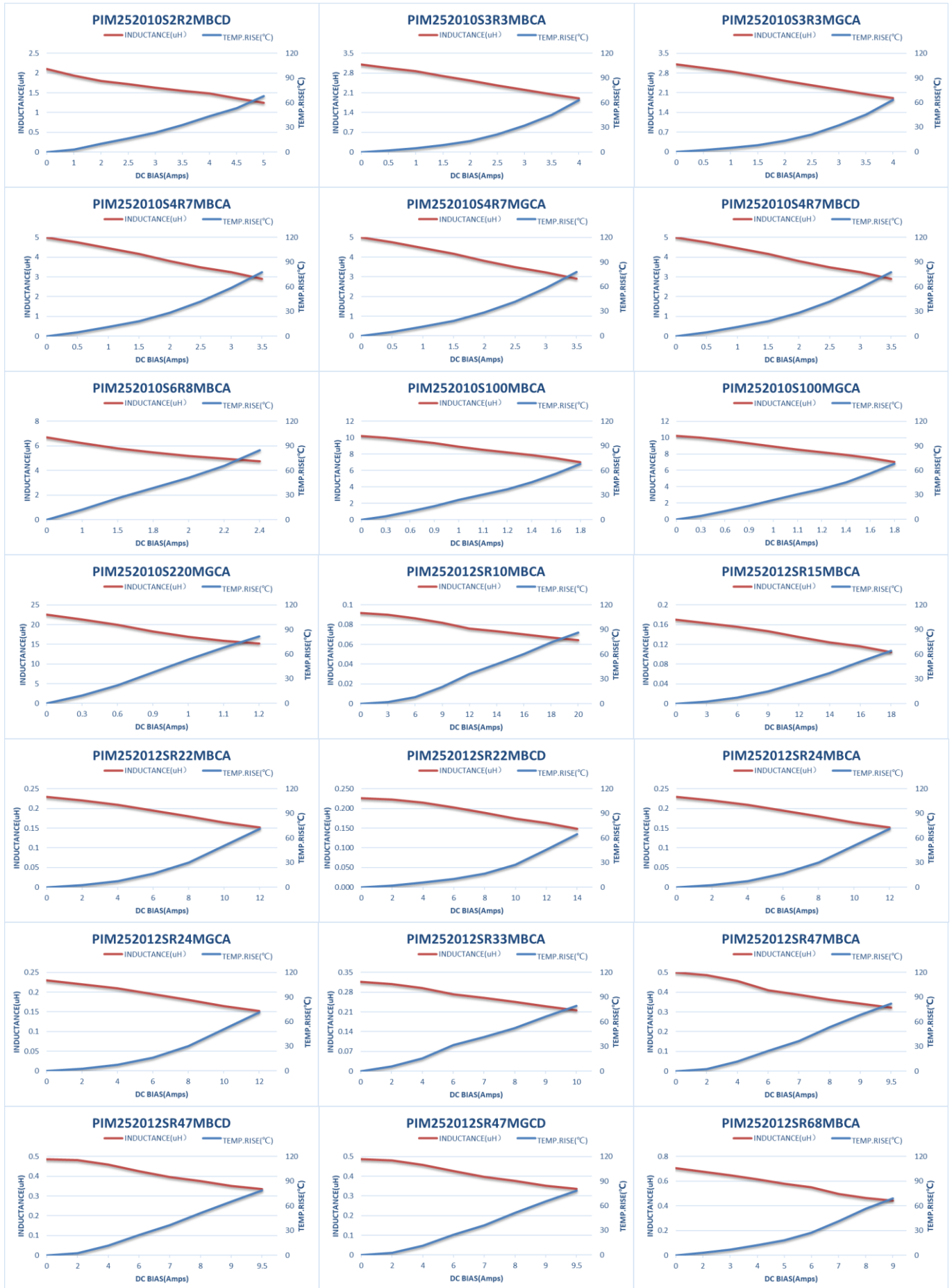


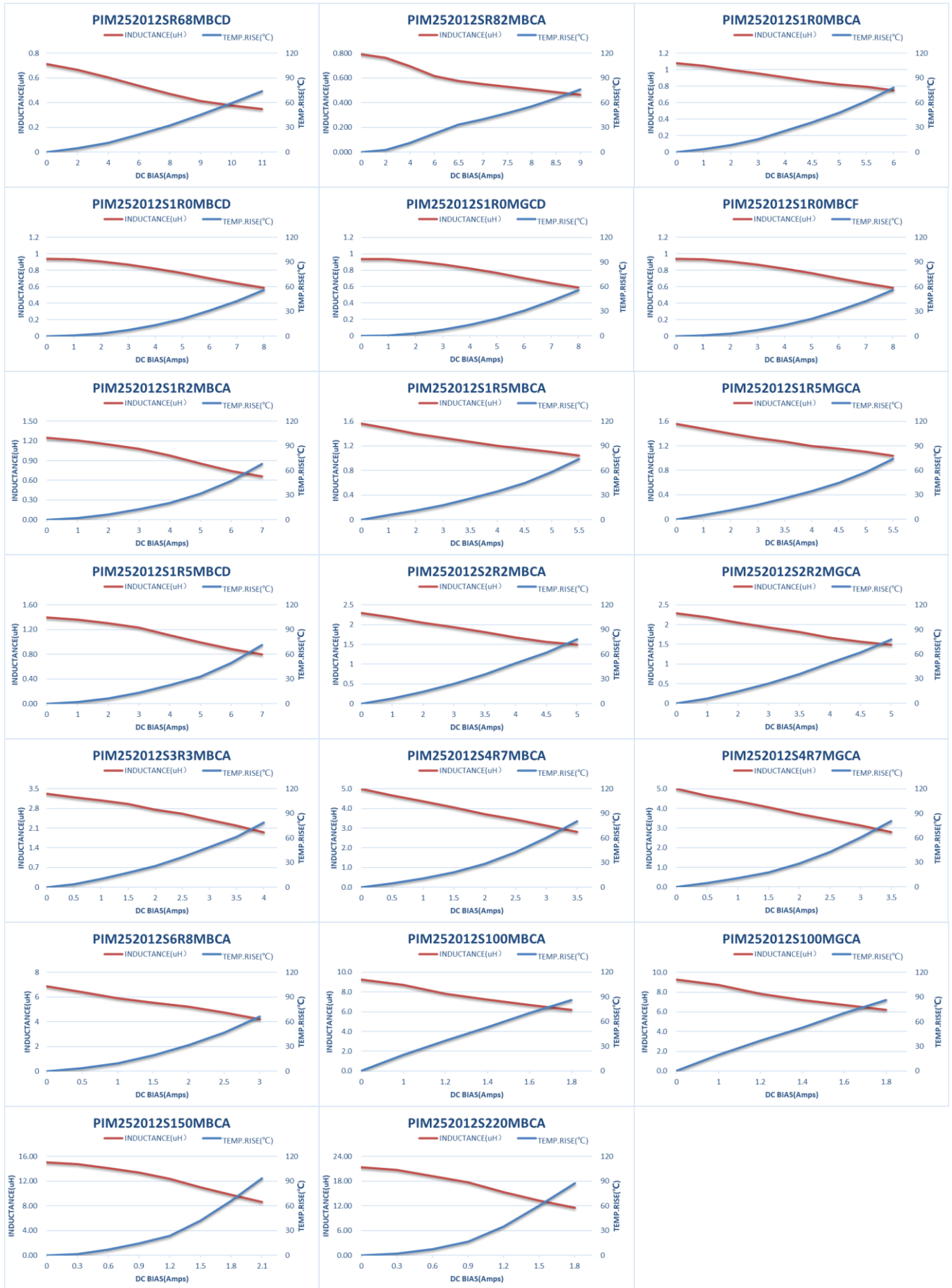
## 7>2520 Series



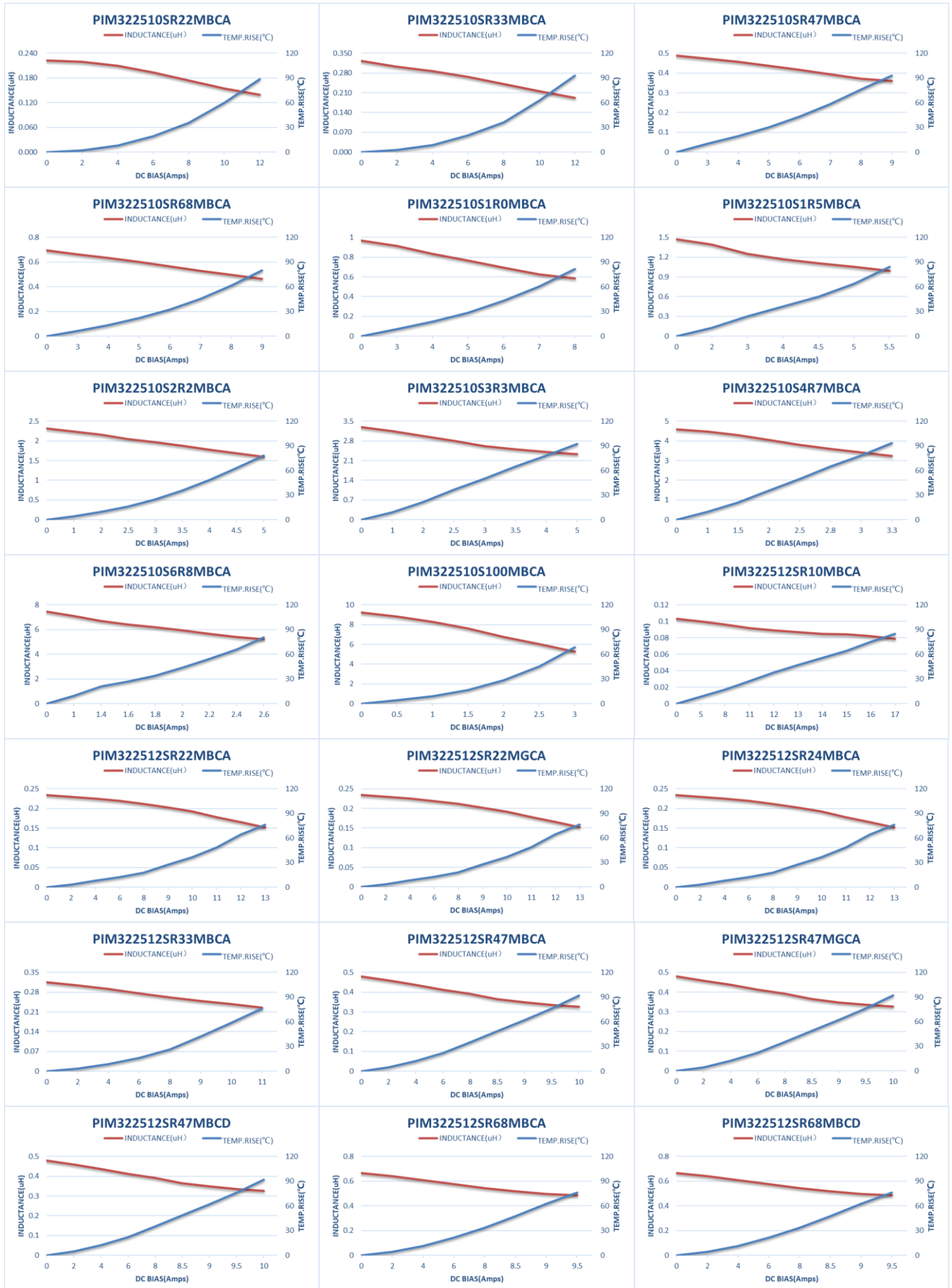


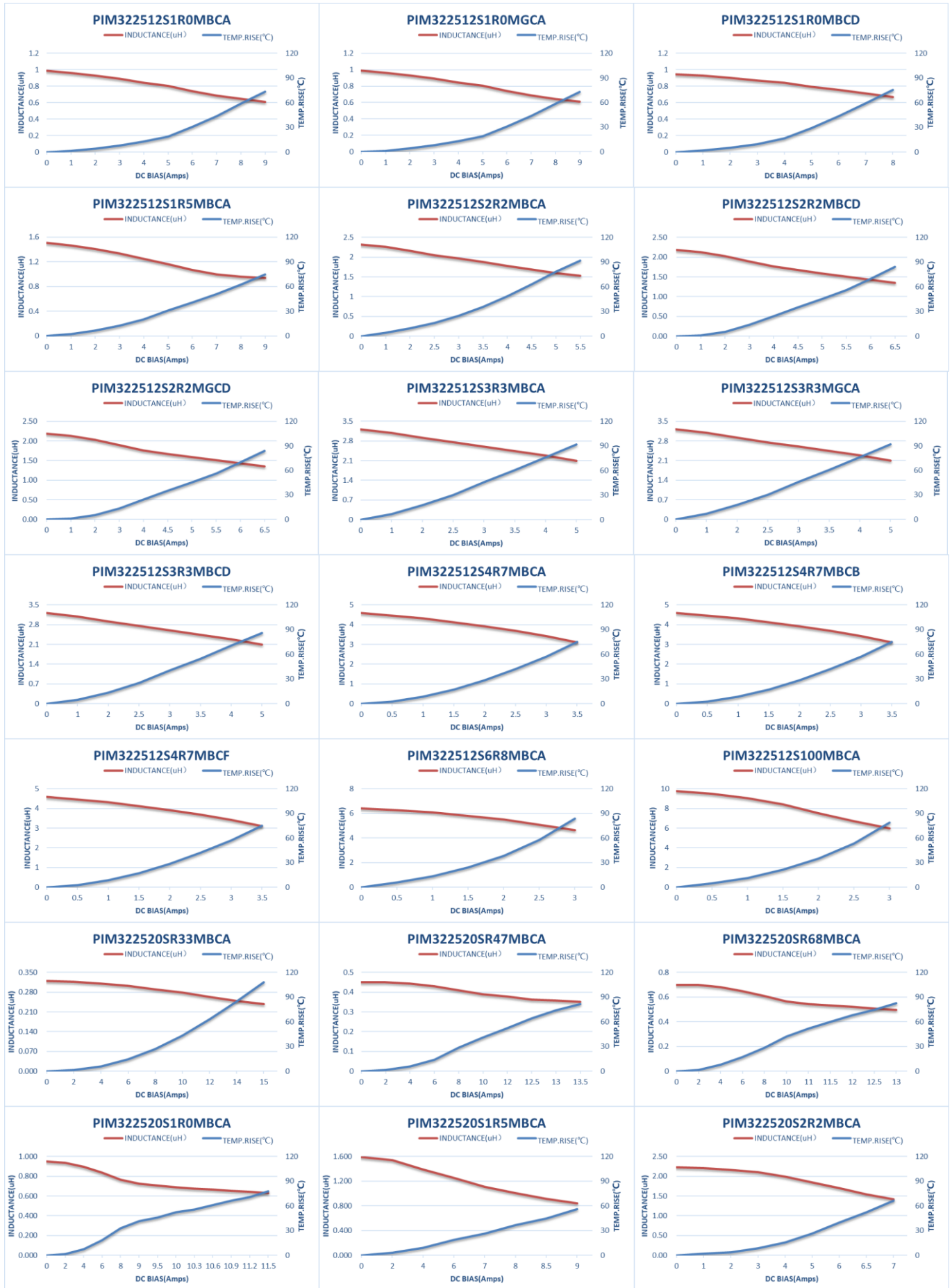


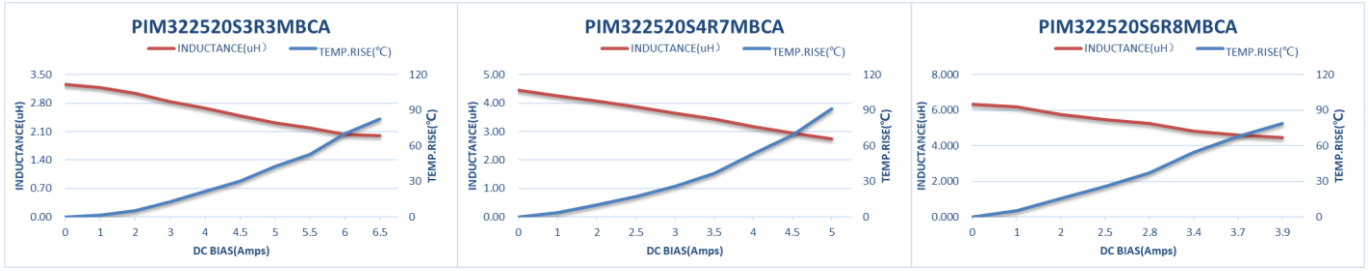




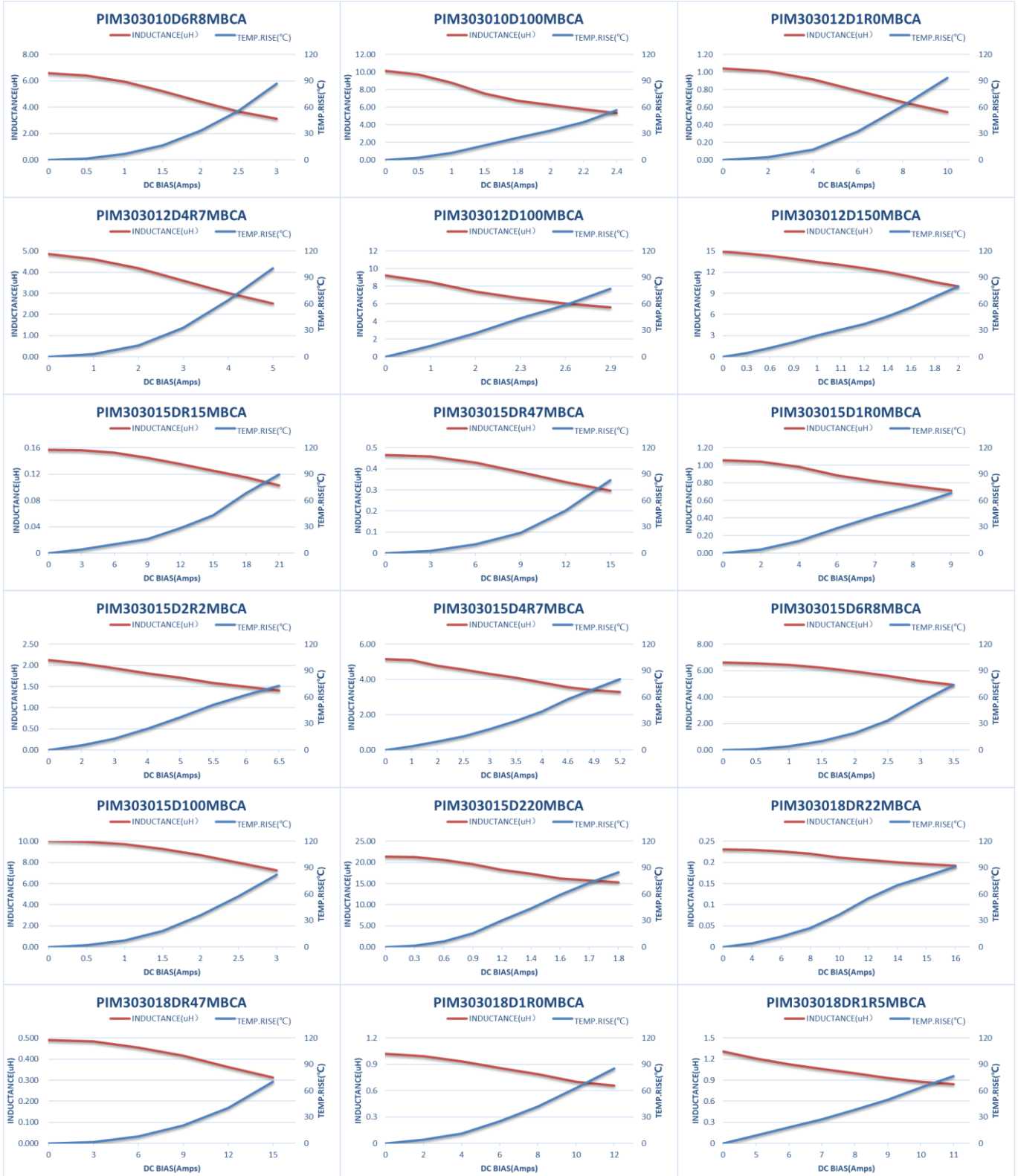
8>3225 Series

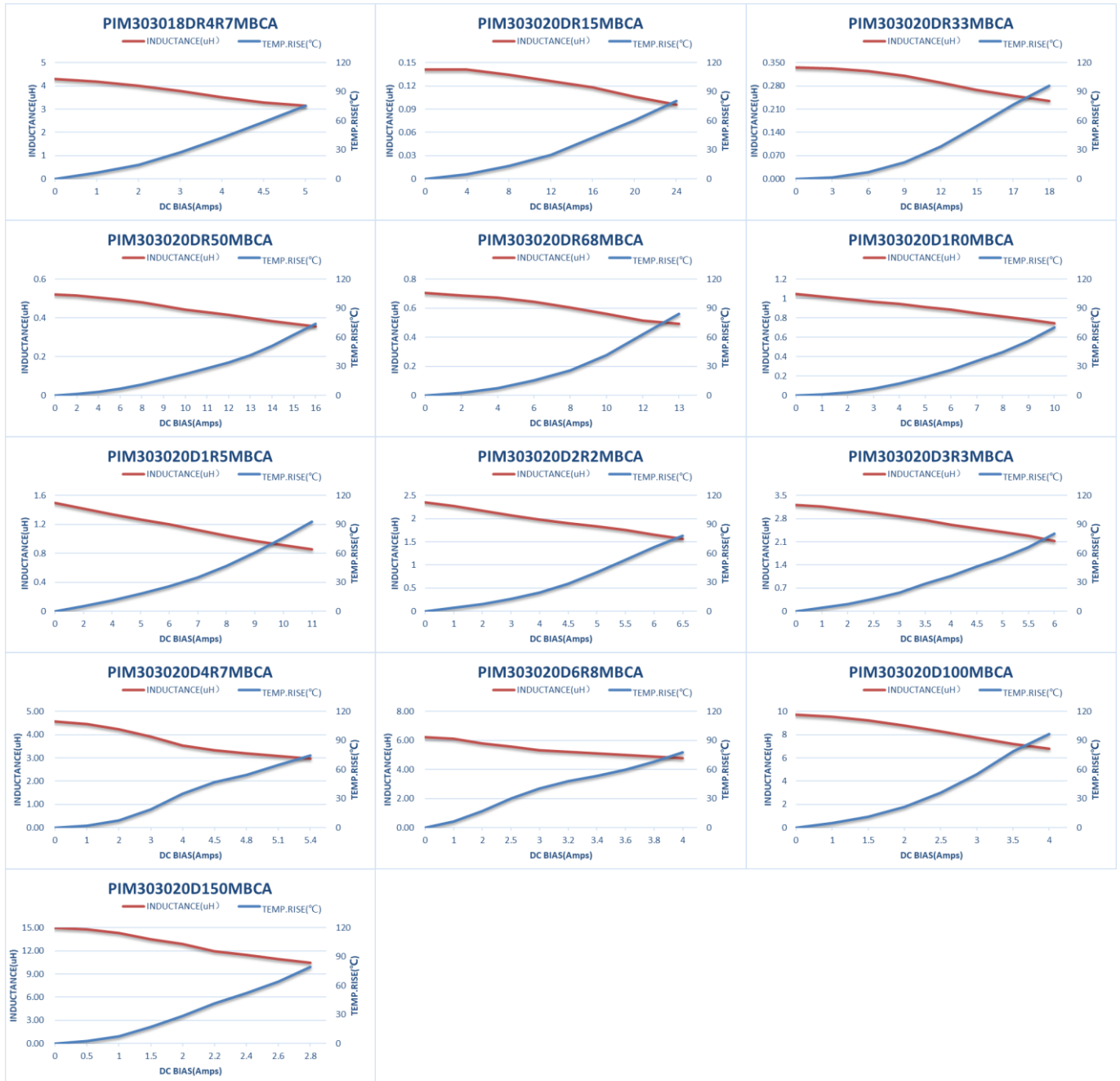




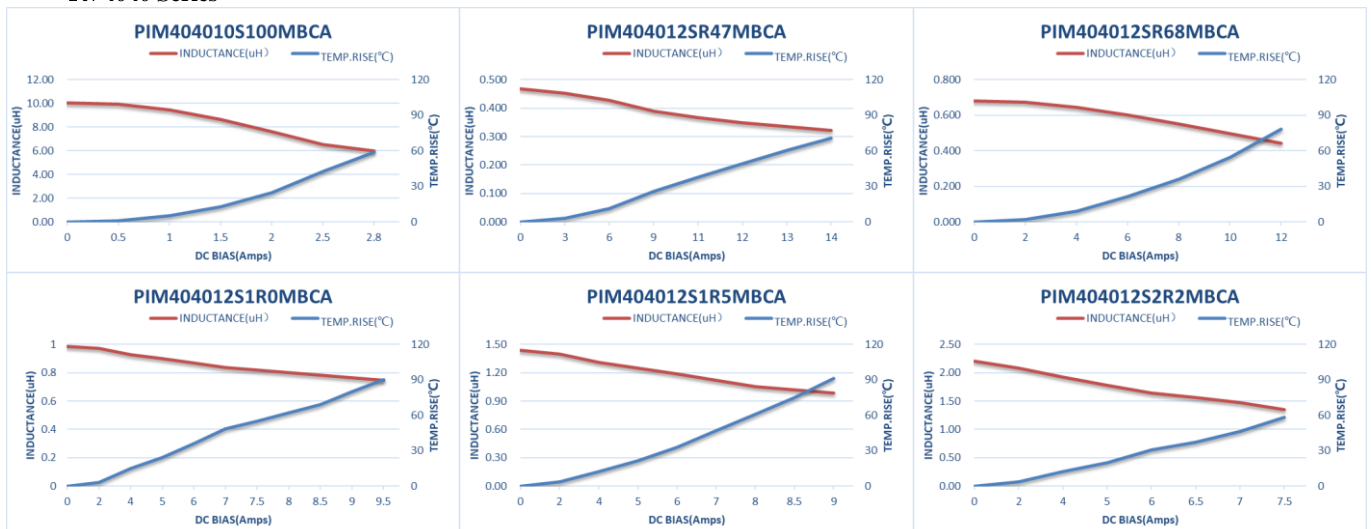


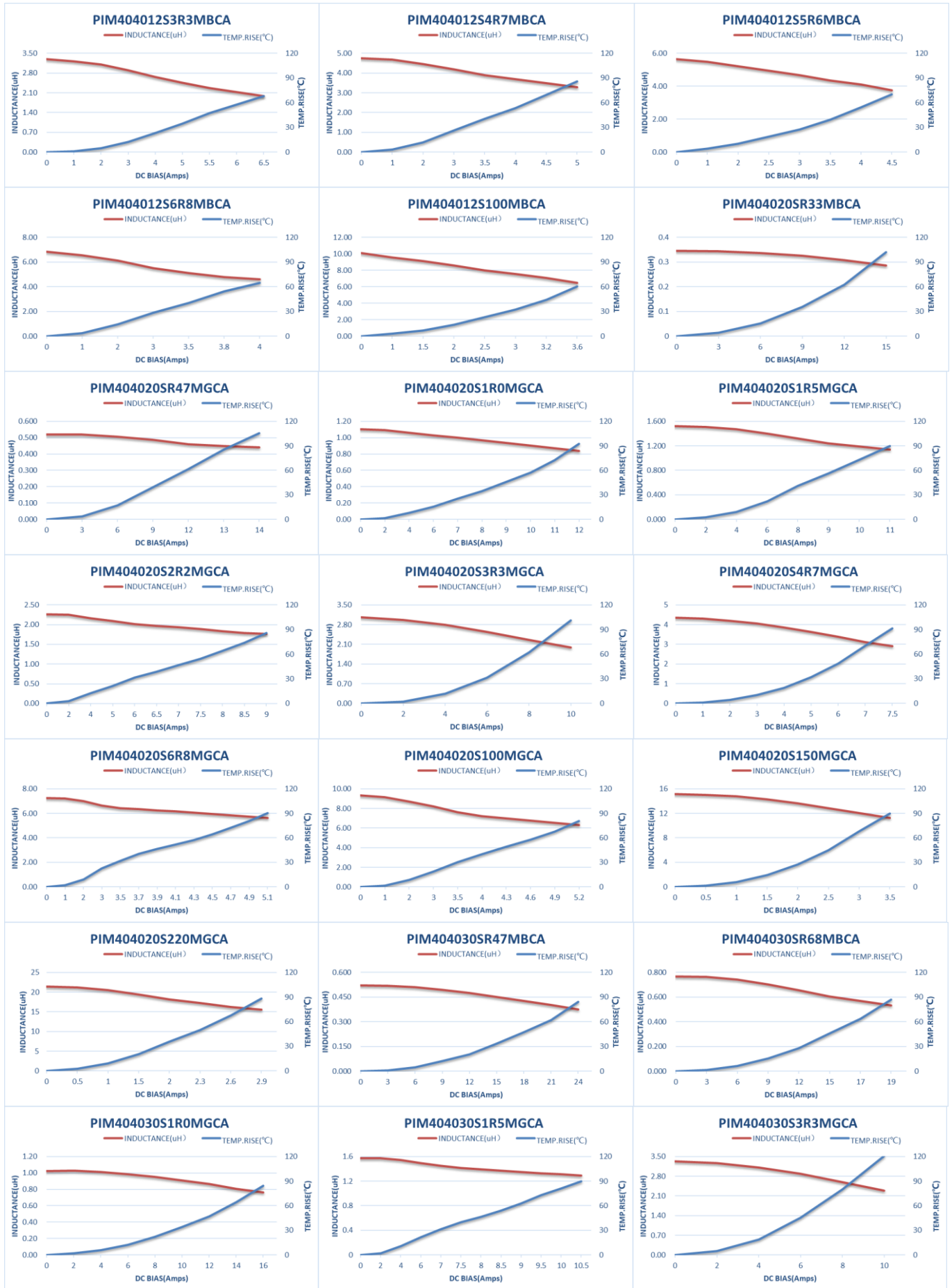
## 9>3030 Series

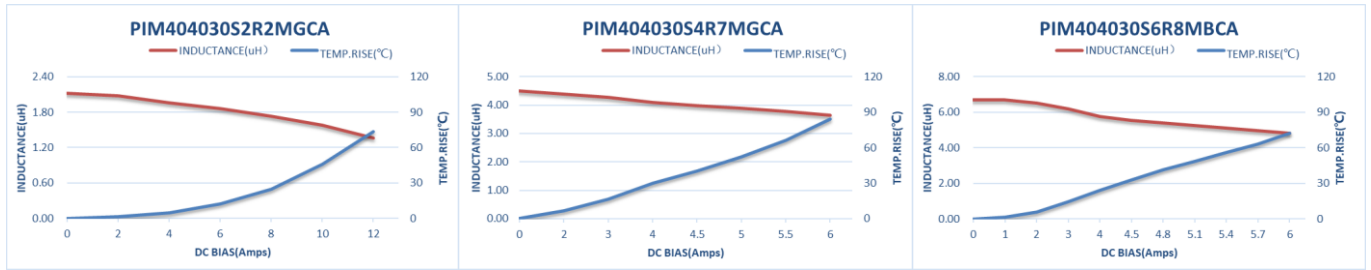




## 10>4040 Series









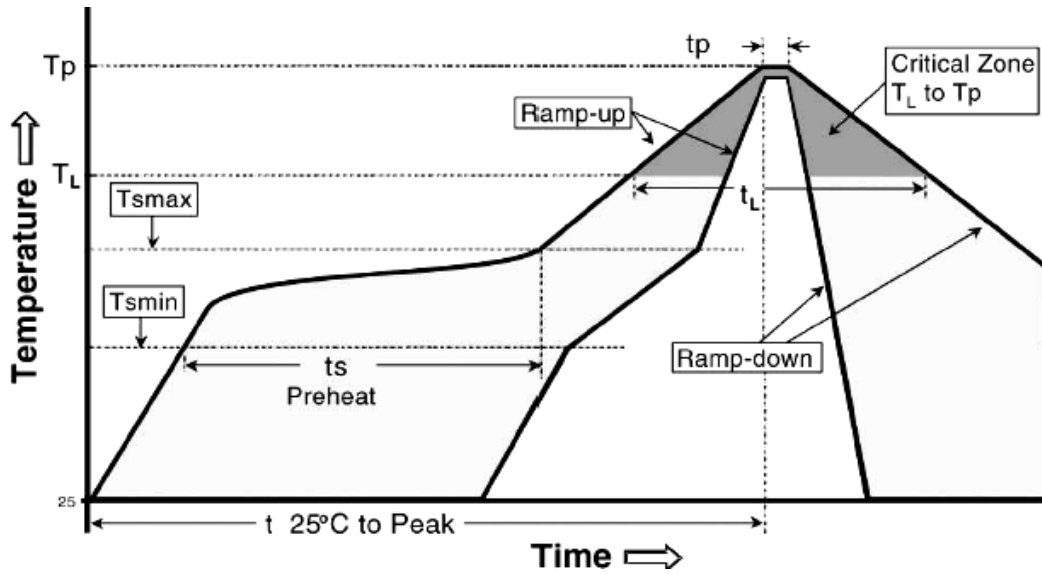
## 8. Reliability

Item	Requirements	Test Methods and Remarks								
Insulation Resistance	$\geq 100M\Omega$	100 VDC between inductor coil and The middle of the top surface of the body for 60 seconds.								
Solderability	90% or more of electrode area shall be coated by new solde.	Dip pads in flux . Solder Composition: Sn/Ag3.0/Cu0.5(Pb-Free). Solder Temperature: $245 \pm 5^\circ\text{C}$ . Immersion Time: $(5 \pm 1)$ s.								
Resistance to Soldering Heat	No visible mechanical damage. Inductance change: Within $\pm 10\%$ .	Dip pads in flux. Solder Composition: Sn/Ag3.0/Cu0.5(Pb-Free). Solder Temperature: $260 \pm 5^\circ\text{C}$ . Immersion Time: $10 \pm 1$ sec.								
Adhesion of teral electrode	Strong bond between the pad and the core, without come off PCB.	Inductors shall be subjected to $(260 \pm 5)^\circ\text{C}$ for $(20 \pm 5)$ s Soldering in the base whit 0.3mm solder. And then aplombelectrode way plus tax X N for $(10 \pm 1)$ seconds. <table border="1" data-bbox="874 840 1173 967"> <thead> <tr> <th>series</th> <th>"X" N</th> </tr> </thead> <tbody> <tr> <td>1008</td> <td>6</td> </tr> <tr> <td>1210~1608</td> <td>8</td> </tr> <tr> <td>2012</td> <td>12</td> </tr> </tbody> </table>	series	"X" N	1008	6	1210~1608	8	2012	12
series	"X" N									
1008	6									
1210~1608	8									
2012	12									
High temperature	No case deformation or change in appearance. Inductance change: Within $\pm 10\%$	Temperature: $125 \pm 2^\circ\text{C}$ . Time : 1000 hours. Measurement at $24 \pm 4$ hours after test conclusion.								
Low temperature	No visible mechanical damage. Inductance change: Within $\pm 10\%$	Temperature: $-55 \pm 2^\circ\text{C}$ . Time : 1000 hours. Measurement at $24 \pm 4$ hours after test conclusion.								
Thermal shock	No visible mechanical damage. Inductance change: Within $\pm 10\%$	The test sample shall be placed at $(-55 \pm 3)^\circ\text{C}$ and $(125 \pm 3)^\circ\text{C}$ for $(30 \pm 3)$ , different temperature conversion time is 2~3 uts. The temperature cycle shall be repeated 32 cycles. Placed at room temperature for 2 hours, within $48 \pm 4$ hours of testing.								
Temperature characteristic	Inductance change Pc-b,Pc-d: Within $\pm 10\%$	a: $+20^\circ\text{C}$ (30~45) → b: $-40^\circ\text{C}$ (30~45) → c: $+20^\circ\text{C}$ (30~45) → d: $+125^\circ\text{C}$ (30~45) → e: $+20^\circ\text{C}$ (30~45) $P_{c-b} = \frac{L_b - L_c}{L_c} \times 100\%$ ; $P_{c-d} = \frac{L_d - L_c}{L_c} \times 100\%$								
Static Humidity	No visible mechanical damage. Inductance change: Within $\pm 10\%$	Inductors shall be subjected to $(95 \pm 3)\% \text{RH}$ . at $(60 \pm 2)^\circ\text{C}$ for $(1000 \pm 4)$ h. Placed at room temperature for 2 hours, within 48 hours of testing.								
Life	No visible mechanical damage. Inductance change: Within $\pm 10\%$	Inductors shall be store at $(85 \pm 2)^\circ\text{C}$ for $(1000 \pm 4)$ hours with Irms applied. Placed at room temperature for 2 hours, within 48 hours of testing								

## 9. Soldering Condition

(This is for recommendation, please customer perform adjustment according to actual application)

Recommend Reflow Soldering Profile : (solder : Sn96.5 / Ag3 / Cu0.5)



Profile Feature	Lead (Pb)-Free solder
Preheat:	
Temperature Min (T <sub>smin</sub> )	150°C
Temperature Max (T <sub>smax</sub> )	200°C
Time (T <sub>smin</sub> to T <sub>smax</sub> ) (t <sub>s</sub> )	60 -120 seconds
Average ramp-up rate: (T <sub>smax</sub> to T <sub>p</sub> )	3°C / second max.
Time maintained above :	
Temperature (T <sub>L</sub> )	217°C
Time (t <sub>L</sub> )	60-150 seconds
Peak Temperature (T <sub>p</sub> )	260°C
Time within $\begin{matrix} +0 \\ -5 \end{matrix}$ °C of actual peak Temperature (t <sub>p</sub> ) <sup>2</sup>	10 seconds
Ramp-down Rate	6°C/second max.
Time 25°C to Peak Temperature	8minutes max.

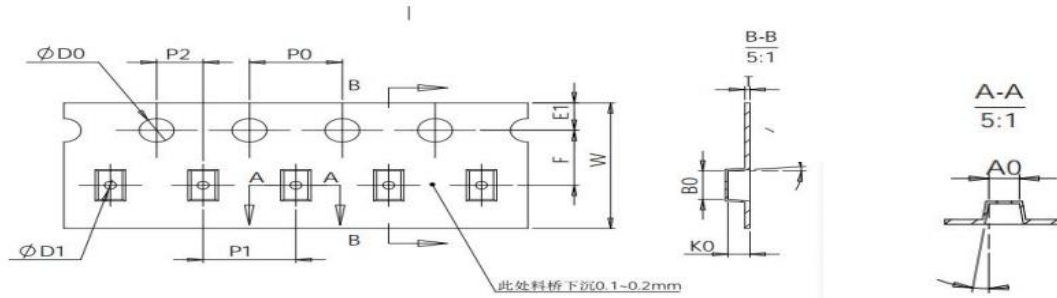
Allowed Re-flow times : 2 times

Remark : To avoid discoloration phenomena of chip on terminal electrodes, please use N<sub>2</sub> Re-flow furnace .

## 10. Packing

10.1 Dimension of plastic taping: (Unit: mm)

The following dimensions are related to the actual fit of the machine, for reference only.



Series	W	A0	B0	D0	D1	E	F	K0	P0	P2	P1	T	包装数量
公差	/	/	/	+0.1/-0	$\pm 0.20$	$\pm 0.10$	$\pm 0.10$	/	$\pm 0.10$	$\pm 0.10$	$\pm 0.10$	$\pm 0.05$	
100765	$8.0 \pm 0.10$	$0.90 \pm 0.05$	$1.25 \pm 0.05$	1.5	0.6	1.75	3.5	$0.80 \pm 0.10$	4.0	2.0	4.0	0.22	5K
121065	$8.0 \pm 0.10$	$1.30 \pm 0.05$	$1.50 \pm 0.05$	1.5	0.7	1.75	3.5	$0.80 \pm 0.10$	4.0	2.0	4.0	0.22	3K
160865	$8.0 \pm 0.10$	$1.00 \pm 0.05$	$1.82 \pm 0.05$	1.5	0.6	1.75	3.5	$0.80 \pm 0.10$	4.0	2.0	4.0	0.22	
160808	$8.0 \pm 0.10$	$1.04 \pm 0.05$	$1.82 \pm 0.05$	1.5	0.6	1.75	3.5	$0.95 \pm 0.05$	4.0	2.0	4.0	0.22	
141265	$8.0 \pm 0.10$	$1.50 + 0.10 / - 0.05$	$1.70 + 0.10 / - 0.05$	1.5	0.6	1.75	3.5	$0.80 \pm 0.10$	4.0	2.0	4.0	0.22	
141207/141208	$8.0 \pm 0.10$	$1.50 + 0.10 / - 0.05$	$1.70 + 0.10 / - 0.05$	1.5	0.6	1.75	3.5	$0.95 \pm 0.10$	4.0	2.0	4.0	0.22	
201265	$8.0 \pm 0.10$	$1.40 + 0.10 / - 0.05$	$2.25 + 0.10 / - 0.05$	1.5	1.0	1.75	3.5	$0.80 \pm 0.10$	4.0	2.0	4.0	0.25	
201208	$8.0 \pm 0.10$	$1.50 \pm 0.10$	$2.30 \pm 0.10$	1.5	1.0	1.75	3.5	$1.00 \pm 0.10$	4.0	2.0	4.0	0.22	
201210	$8.0 \pm 0.10$	$1.50 \pm 0.10$	$2.35 \pm 0.10$	1.5	1.0	1.75	3.5	$1.20 \pm 0.10$	4.0	2.0	4.0	0.22	
201655/201665	$8.0 \pm 0.10$	$1.95 \pm 0.10$	$2.45 \pm 0.10$	1.5	1.0	1.75	3.5	$0.80 \pm 0.10$	4.0	2.0	4.0	0.25	
201607/201608	$8.0 \pm 0.10$	$1.90 \pm 0.10$	$2.35 \pm 0.10$	1.5	1.0	1.75	3.5	$1.00 \pm 0.10$	4.0	2.0	4.0	0.25	
201610	$8.0 \pm 0.10$	$1.95 \pm 0.10$	$2.35 \pm 0.10$	1.5	1.0	1.75	3.5	$1.15 \pm 0.10$	4.0	2.0	4.0	0.25	
201612	$8.0 \pm 0.10$	$1.90 \pm 0.10$	$2.30 \pm 0.10$	1.5	1.0	1.75	3.5	$1.35 \pm 0.10$	4.0	2.0	4.0	0.25	
252075/252008	$8.0 \pm 0.10$	$2.35 + 0.10 / - 0.05$	$2.80 + 0.10 / - 0.05$	1.5	1.0	1.75	3.5	$1.00 \pm 0.10$	4.0	2.0	4.0	0.23	
252010	$8.0 \pm 0.10$	$2.45 \pm 0.10$	$2.80 \pm 0.10$	1.5	1.0	1.75	3.5	$1.20 \pm 0.10$	4.0	2.0	4.0	0.25	
252012	$8.0 \pm 0.10$	$2.35 + 0.10 / - 0.05$	$2.80 + 0.10 / - 0.05$	1.5	1.0	1.75	3.5	$1.35 \pm 0.10$	4.0	2.0	4.0	0.23	
322510	$8.0 \pm 0.10$	$2.80 + 0.10 / - 0.05$	$3.50 + 0.10 / - 0.05$	1.5	1.0	1.75	3.5	$1.15 \pm 0.10$	4.0	2.0	4.0	0.25	
322512	$8.0 \pm 0.10$	$2.90 + 0.10 / - 0.05$	$3.50 + 0.10 / - 0.05$	1.5	1.0	1.75	3.5	$1.35 \pm 0.10$	4.0	2.0	4.0	0.25	

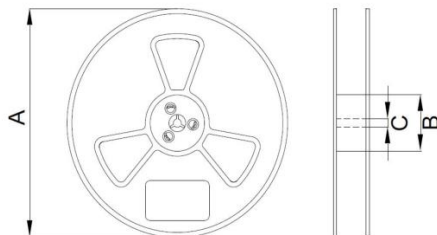
## Mini Molding Power Inductors

Series	W	A0	B0	D0	D1	E	F	K0	P0	P2	P1	T	包装数量
公差	/	/	/	+0.1/-0	±0.20	±0.10	±0.10	/	±0.10	±0.10	±0.10	±0.05	
322520	8.0±0.10	2.90+0.10/-0.05	3.50+0.10/-0.05	1.5	1.0	1.75	3.5	2.20±0.10	4.0	2.0	4.0	0.23	2K
303010/303012	12.0±0.30	3.40±0.10	3.40±0.10	1.5	1.5	1.75	5.5	1.40±0.10	4.0	2.0	<b>8.0</b>	0.30	3K
303015	12.0±0.30	3.40±0.10	3.40±0.10	1.5	1.5	1.75	5.5	1.70±0.10	4.0	2.0	<b>8.0</b>	0.30	
303018	12.0±0.30	3.25±0.10	3.25±0.10	1.5	1.5	1.75	5.5	2.00±0.10	4.0	2.0	<b>8.0</b>	0.23	
303020	12.0±0.30	3.40±0.10	3.45±0.10	1.5	1.5	1.75	5.5	2.20±0.10	4.0	2.0	<b>8.0</b>	0.30	
404012	12.0±0.30	4.40±0.10	4.40±0.10	1.5	1.5	1.75	5.5	1.30±0.10	4.0	2.0	<b>8.0</b>	0.30	
404020	12.0±0.30	4.40±0.10	4.40±0.10	1.5	1.5	1.75	5.5	2.20±0.10	4.0	2.0	<b>8.0</b>	0.30	
404030	12.0±0.30	4.40±0.10	4.40±0.10	1.5	1.5	1.75	5.5	3.10±0.10	4.0	2.0	<b>8.0</b>	0.35	2K

### 10.2 Dimension of Reel : (Unit: mm)

Type	A	B	C
All	±2.0	±2.0	±2.0
All	178	60	9.0

Type	A	B	C
All	±2.0	±2.0	±2.0
All	330	100	13.0





# Mini Molding Power Inductors

## 11. Note

- 11.1 Huacui recommend products store in warehouse with temperature between 15 to 35°C under humidity between 25 to 75%RH.  
Even under storage conditions recommended above, solder ability of products will be degraded stored over 1 year old.
- 11.2 Cartons must be placed in correct direction which indicated on carton, otherwise the reel or wire will be deformed.
- 11.3 Storage conditions as below are inappropriate:
- Stored in high electrostatic environment
  - Stored in direct sunshine, rain, snow or condensation.
  - Exposed to sea wind or corrosive gases, such as Cl<sub>2</sub>, H<sub>2</sub>S, NH<sub>3</sub>, SO<sub>2</sub>, NO<sub>2</sub>, etc.
- 11.4 The products are used in circuit board thickness greater than 1.6mm. If customers use less than the thickness of the circuit board that you should confirm with the company, in order to recommend a more suitable product.

## 12. Record

Version	Description	Page	Date	Amended by	Checked by
A0	First version	1~23	Nov.21.2022	Xi Rui.Niu	Dirk.Wang
A1	newly increased : PIM303020D1R5MBCA PIM252010S6R8MBCA PIM252010S220MBCA PIM322510S2R2MBCA PIM201208SR47MBCD	1~23	Dec.14.2022	Xi Rui.Niu	Dirk.Wang
A2	newly increased : PIM303018D4R7MBCA PIM322510S3R3MBCA PIM322510S4R7MBCA	1~23	Dec.29.2022	Xi Rui.Niu	Dirk.Wang
A3	newly increased : PIM141207SR24MBCA PIM141207SR47MBCA PIM201612SR47MBCA PIM303018DR22MBCA PIM322512SR10MBCA PIM322510SR68MBCA	1~24	Jan.18.2023	Xi Rui.Niu	Dirk.Wang
A4	newly increased: PIM322512SR10MBCA PIM322510SR68MBCA	1~24	Feb.10.2023	Xi Rui.Niu	Dirk.Wang
A5	newly increased: PIM252010SR47MBCD PIM322510S1R0MBCA PIM322512S6R8MBCA PIM322512S100MBCA	1~24	Feb.23.2023	Xi Rui.Niu	Dirk.Wang
A6	newly increased: PIM201208SR68MBCA PIM201612S2R2MBCA PIM252008S1R0MBCA PIM252008S2R2MBCA PIM252012SR68MBCD PIM322510SR33MBCA PIM322510SR47MBCA PIM322510S1R5MBCA PIM322510S100MBCA PIM303018D1R5MBCA Revise: PIM160808SR47MGCDM Rdc由48/55改為38/45	1~24	Mar.31.2023	Xi Rui.Niu	Dirk.Wang
A7	newly increased: PIM322510S6R8MBCA PIM303012D100MBCA PIM303020DR50MBCA PIM303020DR68MBCA PIM252075S2R2MGCA PIM201208S4R7MBCA	1~25	Apr.28.2023	Xi Rui.Niu	Dirk.Wang
A8	newly increased: PIM303015D220MBCA PIM303020D100MBCA PIM404012S1R0MBCA PIM404030S4R7MGCA PIM303020D3R3MBCA PIM252008S1R5MBCA PIM201608S100MBCA PIM201612SR15MBCA PIM201612S3R3MBCA PIM252008SR47MBCA PIM252008S3R3MBCA PIM201610S100MBCA PIM322520S1R0MBCA PIM141208SR24MBCD PIM201612SR68MBCA PIM201612S1R0MBCA PIM252012SR82MBCA	1~27	May.31.2023	Xi Rui.Niu	Dirk.Wang
A9	newly increased: PIM201210S6R8MBCA PIM201208S3R3MBCA PIM201210S100MBCA PIM303020D4R7MBCA PIM303020D6R8MBCA PIM322520SR47MBCA PIM322520SR68MBCA PIM404020S2R2MGCA PIM404010S100MBCA	1~30	Jun.30.2023	Xi Rui.Niu	Congdian.Lu
B1	newly increased: PIM160808SR24MBCD PIM160808S4R7MBCA PIM252008S100MBCA PIM252010S2R2MBCD PIM322520SR33MBCA PIM322520S2R2MBCA PIM322520S3R3MBCA PIM322520S4R7MBCA PIM303020DR33MBCA PIM404012S1R5MBCA PIM404020S4R7MGCA	1~31	Jul.29.2023	Ning.Song	Congdian.Lu



## Mini Molding Power Inductors

	PIM404020S100MGCA PIM404020S220MGCA PIM404030S6R8MBCA	PIM404020S150MGCA PIM404030SR68MBCA					
B2	newly increased: PIM201610SR47MBCB PIM322520S1R5MBCA PIM303015D4R7MBCA PIM404012S3R3MBCA	PIM160808SR56MBCD PIM252010S2R2MBCB PIM303010D100MBCA PIM404012S2R2MBCA	1~31	Aug.29.2023	Ning.Song	Congdian.Lu	
B3	newly increased: PIM201208SR11MBCA PIM201655SR47MBCA PIM303012D150MBCA PIM303015D6R8MBCA PIM404012SR47MBCA	PIM160808S3R3MBCA PIM201655SR33MBCA PIM201610SR68MBCB PIM303015D2R2MBCA PIM303015D100MBCA	1~32	Sep.28.2023	Ning.Song	Congdian.Lu	
B4	Revise: Shape and Dimensions Dimension of plastic taping		1~34	Oct.17.2023	Ning.Song	Congdian.Lu	
B5	newly increased: PIM201610SR47MGCD PIM201610D4R7MBCA PIM303015D1R0MBCA PIM404020SR47MGCA Revise: PIM322512S2R2MBCD	PIM141208S1R0MBCA PIM201610S2R2MGCD PIM322520S6R8MBCA PIM303020D150MBCA	1~34	Oct.31.2023	Ning.Song	Congdian.Lu	
B6	newly increased: PIM160808S1R5MBCA PIM252008S4R7MBCA PIM404020S1R5MGCA Delete: PIM201265D1R0MGCA	PIM160865S1R0MGCA PIM201607S2R2MBCA PIM404020S1R0MGCA PIM404020S6R8MGCA PIM160865DR22MBCA PIM201208DR47MGCA	1~34	Nov.30.2023	Ning.Song	Congdian.Lu	
B7	newly increased: PIM160865S2R2MBCA PIM201208SR15MBCA PIM201210S3R3MBCA PIM201610SR24MBCD PIM252012S1R2MBCA PIM303010D6R8MBCA PIM303012D4R7MBCA PIM303015DR47MBCA PIM303018D1R0MBCA PIM404012SR68MBCA	PIM160865SR47MGCD PIM160808S100MBCA PIM201208S2R2MBCB PIM201210S4R7MBCA PIM252012S1R0MBCF PIM322512S4R7MBCB PIM303012D1R0MBCA PIM303015DR15MBCA PIM303018DR47MBCA PIM303020DR15MBCA	1~35	Dec.29.2023	Ning.Song	Congdian.Lu	
B8	newly increased: PIM160865SR22MGCA PIM201212SR11MBCA PIM201665S1R0MBCA PIM404020SR33MBCA Revise: PIM201210SR33MGCB	PIM160865S1R0MGCD PIM201212S3R3MBCA PIM322510SR22MBCA PIM404030S3R3MGCA	1~36	Jan.31.2024	Ning.Song	Congdian.Lu	
B9	newly increased: PIM201212SR24MBCA PIM201610SR11MBCA PIM322512S4R7MBCF PIM404030SR47MBCA PIM404030S2R2MGCA Revise: PIM201208SR24MGCB	PIM201212SR47MBCA PIM322512S3R3MGCD PIM404020S3R3MGCA PIM404030S1R0MGCA	1~37	Feb.29.2024	Ning.Song	Congdian.Lu	
C1	newly increased: PIM201265S2R2MBCD PIM201212SR11MBCD PIM201212SR47MBCD PIM252055SR47MBCA PIM252012SR22MBCD Revise: PIM252010S1R0MBCA PIM252010S1R0MBCA PIM252010S1R0MGCA PIM252010S1R0MGCA	PIM201210S1R0MBCD PIM201212SR24MBCD PIM201612SR11MBCA PIM252010SR82MBCA PIM252012S220MBCA	1~38	Mar.31.2024	Ning.Song	Congdian.Lu	

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