

# Specification for Approval

Customer	
Product Name	Wire Wound Molded SMD Power Inductors
Customer P/N:	
Cjiang P/N:	FTC Series

[  New Released,  Revised]

SPEC No.:

REMARK:		
Customer Approval Feedback		

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## Version change history

Rev	Date	Description	APPROVED	CHECKED	DRAWN
1.0	2022/8/9	文件制定	Bond	Charles	王云燕
2.0	2023/9/20	更改规范	Bond	Charles	王云燕
3.0	2024/6/05	新增系列	Bond	Charles	王云燕
4.0	2024/9/11	修订G尺寸为Typ	Bond	Charles	Roy

Caution :

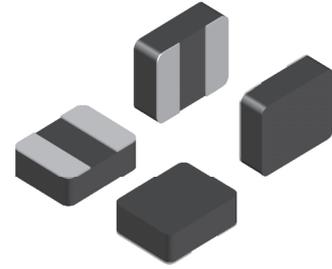
All products listed in this specification are developed, designed and intended for use in general electronics equipment. The products are not designed or Warranted to meet the requirements of the applications listed below, whose performance and/or quality require especially high reliability, or whose failure, malfunction or trouble might directly cause damage to society, person, or property. Please understand that we are not responsible for any damage or liability caused by use of the products in any of the applications below. Please contact us for more details if you intend to use our products in the following applications.

1. Aircraft equipment.
2. Aerospace equipment.
3. Undersea equipment.
4. nuclear control equipment.
5. military equipment.
6. Power plant equipment.
7. Medical equipment.
8. Transportation equipment (automobiles, trains, ships,etc.)
9. Traffic signal equipment.
10. Disaster prevention / crime prevention equipment.
11. Data-processing equipment.
12. Applications of similar complexity or with reliability requirements comparable to the applications listed in the above.

## 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.
- 1.6 100% lead (Pb) free meet RoHS standard.



### Application

- 2.1 DC/DC converters.
- 2.2 Pad, Smartphone.
- 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

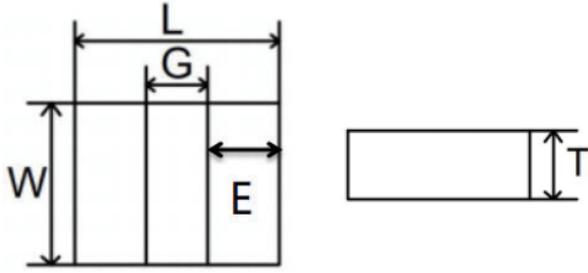
FTC    2016    10    S    1R0    M    B    C    \*  
①    ②    ③    ④    ⑤    ⑥    ⑦    ⑧    ⑨

- 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

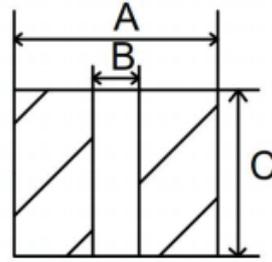
For special characteristics, please refer to the specific values in Item 5 "Specifications".

### 3. SHAPE AND DIMENSIONS

Outline Dimensions



Recommend Land Pattern Dimensions



Units:mm

Series	L	G/Typ	W	E	T	A	B	C
FTC100765D	1.0±0.1	0.4	0.7±0.1	0.30±0.2	0.65Max.	1.10	0.30	0.80
FTC121065S	1.2±0.2	0.4	1.0±0.2	0.40±0.2	0.65Max.	1.30	0.30	1.10
FTC160865S	1.6±0.2	0.6	0.8±0.2	0.50±0.2	0.65Max.	1.70	0.50	0.90
FTC160808S	1.6±0.2	0.6	0.8±0.2	0.50±0.2	0.80Max.	1.70	0.50	0.90
FTC141265S	1.4±0.2	0.5	1.2±0.2	0.45±0.2	0.65Max.	1.50	0.40	1.30
FTC141207S	1.4±0.2	0.5	1.2±0.2	0.45±0.2	0.70Max.	1.50	0.40	1.30
FTC141208S	1.4±0.2	0.5	1.2±0.2	0.45±0.2	0.80Max.	1.50	0.40	1.30
FTC201265S	2.0±0.2	0.6	1.2±0.2	0.70±0.2	0.65Max.	2.10	0.50	1.30
FTC201208S	2.0±0.2	0.6	1.2±0.2	0.70±0.2	0.80Max.	2.10	0.50	1.30
FTC201210S	2.0±0.2	0.6	1.2±0.2	0.70±0.2	1.00Max.	2.10	0.50	1.30
FTC201212S	2.0±0.2	0.6	1.2±0.2	0.70±0.2	1.20Max.	2.10	0.50	1.30
FTC201655S	2.0±0.2	0.6	1.6±0.2	0.70±0.2	0.55Max.	2.10	0.50	1.70
FTC201665S	2.0±0.2	0.6	1.6±0.2	0.70±0.2	0.65Max.	2.10	0.50	1.70
FTC201607S	2.0±0.2	0.6	1.6±0.2	0.70±0.2	0.70Max.	2.10	0.50	1.70
FTC201608S	2.0±0.2	0.6	1.6±0.2	0.70±0.2	0.80Max.	2.10	0.50	1.70
FTC201610S	2.0±0.2	0.6	1.6±0.2	0.70±0.2	1.00Max.	2.10	0.50	1.70
FTC201610D	2.0±0.1	0.6	1.6±0.1	0.70±0.2	1.00Max.	2.10	0.50	1.70
FTC201612S	2.0±0.2	0.6	1.6±0.2	0.70±0.2	1.20Max.	2.10	0.50	1.70
FTC252075S	2.5±0.2	0.8	2.0±0.2	0.85±0.2	0.75Max.	2.60	0.70	2.10
FTC252008S	2.5±0.2	0.8	2.0±0.2	0.85±0.2	0.80Max.	2.60	0.70	2.10
FTC252010S	2.5±0.2	0.8	2.0±0.2	0.85±0.2	1.00Max.	2.60	0.70	2.10
FTC252012S	2.5±0.2	0.8	2.0±0.2	0.85±0.2	1.20Max.	2.60	0.70	2.10
FTC322510S	3.2±0.2	1.1	2.5±0.2	1.05±0.2	1.00Max.	3.20	1.00	2.50
FTC322512S	3.2±0.2	1.1	2.5±0.2	1.05±0.2	1.20Max.	3.20	1.00	2.50
FTC322520S	3.2±0.2	1.1	2.5±0.2	1.05±0.2	2.00Max.	3.20	1.00	2.50
FTC303010D	3.0±0.1	1.0	3.0±0.1	1.00±0.2	1.00Max.	3.00	0.90	3.00
FTC303012D	3.0±0.1	1.0	3.0±0.1	1.00±0.2	1.20Max.	3.00	0.90	3.00
FTC303015D	3.0±0.1	1.0	3.0±0.1	1.00±0.2	1.50Max.	3.00	0.90	3.00
FTC303018D	3.0±0.1	1.0	3.0±0.1	1.00±0.2	1.80Max.	3.00	0.90	3.00

FTC303020D	3.0±0.1	1.0	3.0±0.1	1.00±0.2	2.00Max.	3.00	0.90	3.00
FTC404010S	4.1±0.2	1.4	4.1±0.2	1.35±0.2	1.00Max.	4.10	1.30	4.10
FTC404012S	4.1±0.2	1.4	4.1±0.2	1.35±0.2	1.20Max.	4.10	1.30	4.10
FTC404020S	4.1±0.2	1.4	4.1±0.2	1.35±0.2	2.00Max.	4.10	1.30	4.10
FTC404030S	4.1±0.2	1.4	4.1±0.2	1.35±0.2	3.00Max.	4.10	1.30	4.10

#### 4. Marking

##### No Marking

#### 5. Specifications

1>1007 Series

FTC100765(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
FTC100765D1R5MBCA	1.5	400	500	0.4	0.3	1.1	0.9
FTC100765D2R6MGCA	2.6	750	900	0.55	0.4	1.0	0.8

2>1210 Series

FTC121065(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
FTC121065S2R2MBCA	2.2	280	340	1.0	0.9	1.3	1.2

3>1608 Series

FTC160865(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
FTC160865SR22MGCA	0.22	35	43	4.0	3.5	5.0	4.5
FTC160865SR47MGCA	0.47	66	82	2.3	2.0	3.3	3.0
FTC160865SR47MGCD	0.47	65	78	2.5	3.0	3.5	3.2
FTC160865S1R0MGCA	1.0	180	200	1.8	1.5	2.4	2.0
FTC160865S1R0MGCD	1.0	140	160	2.2	1.8	2.2	2.0
FTC160865S2R2MBCA	2.2	390	430	1.3	1.1	1.6	1.3

FTC160808(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
FTC160808SR22MBCA	0.22	33	40	3.4	3.0	5.5	5.0
FTC160808SR24MBCA	0.24	34	41	3.3	2.9	5.3	4.8
FTC160808SR24MBCD	0.24	22	26	3.9	3.5	4.9	4.4
FTC160808SR47MBCA	0.47	80	100	2.6	2.3	4.1	3.7

FTC160808SR47MBCD	0.47	38	45	3.8	3.4	4.0	3.5
FTC160808SR56MBCA	0.56	85	110	2.2	1.9	4.0	3.5
FTC160808SR56MBCD	0.56	51	63	2.5	2.2	3.0	2.7
FTC160808SR68MBCA	0.68	110	130	2.1	1.9	3.3	3.0
FTC160808S1R0MBCA	1.0	180	200	2.1	1.8	3.0	2.6
FTC160808S1R0MGCD	1.0	105	115	2.1	1.8	2.3	2.1
FTC160808S1R5MBCA	1.5	240	285	1.7	1.4	2.4	2.0
FTC160808S2R2MGCA	2.2	220	260	1.4	1.2	1.5	1.3
FTC160808S3R3MBCA	3.3	500	600	1.0	0.9	1.4	1.2
FTC160808S4R7MBCA	4.7	585	700	1.0	0.8	1.2	1.0
FTC160808S100MBCA	10.0	1450	1600	0.5	0.45	0.8	0.7

4>1412 Series

FTC141265(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
FTC141265SR33MBCA	0.33	26	32	4.4	4.2	4.4	4.0
FTC141265SR33MGCA	0.33	26	32	4.4	4.2	4.4	4.0
FTC141265SR47MBCA	0.47	37	45	3.0	2.7	3.4	3.0
FTC141265SR47MGCA	0.47	37	45	3.0	2.7	3.4	3.0
FTC141265SR47MGCB	0.47	35	38	2.9	2.6	3.9	3.6

FTC141207(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
FTC141207SR24MBCA	0.24	22	28	4.0	3.6	4.6	4.3
FTC141207SR47MBCA	0.47	34	38	3.8	3.3	3.8	3.5

FTC141208(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
FTC141208SR24MBCA	0.24	22	27	4.1	3.7	6.0	5.7
FTC141208SR24MBCD	0.24	21	24	6.6	6.0	7.2	6.5
FTC141208SR33MBCA	0.33	23	28	4.0	3.5	5.3	5.0
FTC141208SR33MGCA	0.33	23	28	4.0	3.5	5.3	5.0
FTC141208SR47MBCA	0.47	29	35	3.8	3.3	4.6	4.2
FTC141208SR47MGCA	0.47	29	35	3.8	3.3	4.6	4.2
FTC141208S1R0MBCA	1.0	65	77	3.0	2.5	3.0	2.5

5>2012 Series  
FTC201265(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
FTC201265S1R0MBCA	1.0	78	86	2.6	2.3	2.8	2.5
FTC201265S2R2MBCA	2.2	215	230	1.7	1.4	1.8	1.5

FTC201208(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
FTC201208SR11MBCA	0.11	10	12	7.0	6.5	9.5	9.0
FTC201208SR15MBCA	0.15	11	13	6.8	6.3	7.5	7.0
FTC201208SR24MBCA	0.24	18	23	6.5	5.9	6.5	6.0
FTC201208SR24MGCA	0.24	18	23	6.5	5.9	6.5	6.0
FTC201208SR24MGCB	0.24	17	20	6.5	5.9	7.0	6.6
FTC201208SR33MBCA	0.33	33	45	4.3	4.0	5.2	4.8
FTC201208SR47MBCA	0.47	34	50	3.5	3.3	5.0	4.6
FTC201208SR47MGCA	0.47	34	50	3.5	3.3	5.0	4.6
FTC201208SR47MBCD	0.47	24	28	4.7	4.5	5.2	4.8
FTC201208SR68MBCA	0.68	50	60	3.7	3.3	4.2	3.7
FTC201208S1R0MBCA	1.0	55	70	3.3	2.9	4.0	3.5
FTC201208S1R0MBCD	1.0	48	55	3.2	2.8	3.2	2.8
FTC201208S1R0MGCD	1.0	48	55	3.2	2.8	3.2	2.8
FTC201208S1R5MBCA	1.5	118	135	2.2	1.9	3.0	2.5
FTC201208S2R2MBCA	2.2	160	185	2.2	1.8	2.6	2.3
FTC201208S2R2MBCB	2.2	130	156	1.8	1.6	2.2	2.0
FTC201208S3R3MBCA	3.3	253	300	1.8	1.5	1.9	1.6
FTC201208S4R7MBCA	4.7	285	325	1.7	1.5	1.6	1.4

FTC201210(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
FTC201210SR10MBCA	0.1	8.0	13	7.5	7.0	8.5	8.0
FTC201210SR22MBCA	0.22	16	22	7.1	6.5	7.3	6.8
FTC201210SR24MBCA	0.24	17	23	7.0	6.4	7.2	6.7
FTC201210SR24MGCD	0.24	13	17	7.0	6.4	7.2	6.7
FTC201210SR33MBCA	0.33	24	32	5.5	5.0	6.5	6.0

FTC201210SR33MGCB	0.33	14	16	5.7	5.2	6.7	6.3
FTC201210SR47MBCA	0.47	29	36	4.7	4.3	5.5	5.0
FTC201210SR47MGCB	0.47	22	26	5.0	4.5	6.0	5.5
FTC201210SR68MBCA	0.68	37	43	4.3	4.0	5.0	4.5
FTC201210S1R0MBCA	1.0	55	63	3.9	3.5	4.0	3.5
FTC201210S1R5MBCA	1.5	76	85	3.1	2.6	3.2	2.7
FTC201210S2R2MBCA	2.2	135	150	2.0	1.7	2.7	2.4
FTC201210S3R3MBCA	3.3	210	260	1.8	1.5	2.2	1.8
FTC201210S4R7MBCA	4.7	275	300	1.6	1.4	1.8	1.6
FTC201210S6R8MBCA	6.8	440	520	1.5	1.3	1.45	1.2
FTC201210S100MBCA	10.0	600	660	1.1	1.0	1.2	1.0

FTC201212(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
FTC201212SR11MBCA	0.11	5.5	6.2	12	11	12.0	11.0
FTC201212SR24MBCA	0.24	13	16	7.5	7.0	9.0	8.5
FTC201212SR47MBCA	0.47	20	23.5	6.0	5.5	5.5	5.0
FTC201212S3R3MBCA	3.3	180	210	1.8	1.6	2.0	1.8

6>2016 Series

FTC201655(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
FTC201655SR33MBCA	0.33	34	41	4.0	3.5	4.0	3.5
FTC201655SR47MBCA	0.47	44	53	3.5	3.0	3.5	3.0

FTC201665(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
FTC201665S1R0MBCA	1.0	58	70	3.5	3.0	3.0	2.7

FTC201607(2.0\*1.6\*0.70mm)

P/N	L0(μH) @(0A) 1MHz	Rdc(mΩ)		Heat rating current Irms(A)		Saturation current Isat(A)	
		Typical	Max	Typical	Max	Typical	Max
FTC201607S2R2MBCA	2.2	150	175	2.1	1.8	2.3	2.0

FTC201608(2.0\*1.6\*0.8mm)

P/N	L0(μH)	Rdc(mΩ)		Heat rating current Irms(A)		Saturation current	
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	@ (0A) 1MHz					Isat(A)	
		Typical	Max	Typical	Max	Typical	Max
FTC201608SR22MBCA	0.22	14	19	6.6	5.9	6.1	5.6
FTC201608SR24MBCA	0.24	14	20	6.5	5.8	6.0	5.5
FTC201608SR33MBCA	0.33	18	24	5.5	4.8	5.8	5.3
FTC201608SR47MBCA	0.47	24	27	4.6	4.4	5.5	5.0
FTC201608SR47MGCA	0.47	24	27	4.6	4.4	5.5	5.0
FTC201608SR68MBCA	0.68	39	44	3.8	3.5	4.6	4.2
FTC201608S1R0MBCA	1.0	53	60	3.6	3.3	3.3	3.1
FTC201608S1R0MGCD	1.0	45	52	3.6	3.3	3.8	3.5
FTC201608S1R5MBCA	1.5	73	85	3.1	2.8	3.0	2.8
FTC201608S2R2MBCA	2.2	123	140	2.2	2.0	2.5	2.3
FTC201608S3R3MBCA	3.3	200	220	1.8	1.5	2.1	1.8
FTC201608S4R7MBCA	4.7	260	290	1.6	1.4	1.7	1.5
FTC201608S100MBCA	10.0	690	800	1.0	0.9	1.0	0.9

FTC201610(2.0\*1.6\*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
FTC201610SR10MBCA	0.10	7.0	12	8.5	8.0	9.0	8.4
FTC201610SR11MBCA	0.11	7.5	13	8.0	7.5	8.9	8.2
FTC201610SR15MBCA	0.15	8.0	14	7.6	7.0	8.7	8.0
FTC201610SR22MBCA	0.22	11	18	6.9	6.3	8.2	7.5
FTC201610SR24MBCA	0.24	12	19	6.8	6.2	8.0	7.4
FTC201610SR24MBCD	0.24	11	14	6.8	6.2	8.0	7.4
FTC201610SR33MBCA	0.33	17	22	5.7	5.3	7.0	6.5
FTC201610SR33MGCA	0.33	17	22	5.7	5.3	7.0	6.5
FTC201610SR47MBCA	0.47	22	25	5.5	5.0	6.3	5.5
FTC201610SR47MBCB	0.47	22	25	5.8	5.6	6.5	6.0
FTC201610SR47MGCA	0.47	22	25	5.5	5.0	6.3	5.5
FTC201610SR47MGCD	0.47	19	23	6.0	5.6	6.2	5.6
FTC201610SR68MBCA	0.68	25	32	4.6	4.3	5.2	4.7
FTC201610SR68MBCB	0.68	25	32	5.5	5.2	5.7	5.5
FTC201610S1R0MBCA	1.0	35	43	4.5	4.1	4.6	4.2
FTC201610S1R0MGCA	1.0	35	43	4.5	4.1	4.6	4.2
FTC201610S1R0MBCD	1.0	31	36	4.6	4.2	4.7	4.2
FTC201610S1R0MGCD	1.0	31	36	4.6	4.2	4.7	4.2

FTC201610S1R5MBCA	1.5	80	100	2.6	2.3	3.2	2.9
FTC201610S2R2MBCA	2.2	120	130	2.5	2.1	3.0	2.8
FTC201610S2R2MGCA	2.2	120	130	2.5	2.1	3.0	2.8
FTC201610S2R2MGCD	2.2	105	115	2.5	2.1	3.0	2.8
FTC201610D2R2MBCA	2.2	115	125	2.5	2.2	3.3	3.0
FTC201610S3R3MBCA	3.3	140	170	1.7	1.5	2.3	2.0
FTC201610D4R7MBCA	4.7	250	276	1.6	1.4	1.9	1.7
FTC201610S4R7MBCA	4.7	190	220	1.6	1.4	2.0	1.8
FTC201610S4R7MGCA	4.7	190	220	1.6	1.4	2.0	1.8
FTC201610S100MBCA	10.0	483	580	1.0	0.7	1.4	1.1

FTC201612(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
FTC201612SR10MBCA	0.10	4.0	6.0	12	10	13	11.5
FTC201612SR15MBCA	0.15	7.5	10	10	9.0	12	10.5
FTC201612SR24MBCA	0.24	9.0	11	9.1	8.6	9.2	8.7
FTC201612SR33MBCA	0.33	10	15	7.7	7.2	7.8	7.3
FTC201612SR47MBCA	0.47	13	17	6.7	6.0	6.7	6.0
FTC201612SR68MBCA	0.68	19	23	6.0	5.3	6.0	5.3
FTC201612S1R0MBCA	1.0	30	36	5.0	4.5	5.0	4.5
FTC201612S1R5MBCA	1.5	40	50	4.0	3.5	4.0	3.5
FTC201612S2R2MBCA	2.2	77	90	3.3	2.9	3.1	2.7
FTC201612S3R3MBCA	3.3	135	165	2.4	2.0	2.7	2.3

7>2520 Series

FTC252075S(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
FTC252075S2R2MGCA	2.2	78	90	2.3	2.0	2.6	2.4
FTC252075S100MGCA	10.0	487	530	1.1	0.9	1.1	0.9

FTC252008S(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
FTC252008SR47MBCA	0.47	22	27	6.5	6.0	6.0	5.3
FTC252008S1R0MBCA	1.0	34	40	4.3	4.0	4.5	4.0
FTC252008S1R5MBCA	1.5	64	75	3.4	3.0	3.5	3.0

FTC252008S2R2MBCA	2.2	69	77	3.0	2.6	3.0	2.6
FTC252008S3R3MBCA	3.3	150	180	2.5	2.1	2.5	2.1
FTC252008S4R7MBCA	4.7	180	215	2.0	1.5	1.9	1.5
FTC252008S100MBCA	10	500	600	1.4	1.2	1.1	0.9

FTC252010S(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
FTC252010SR22MBCA	0.22	12	17	6.8	6.5	8.6	7.9
FTC252010SR22MGCA	0.22	12	17	6.8	6.5	8.6	7.9
FTC252010SR24MBCA	0.24	12	17.5	6.7	6.4	8.5	7.8
FTC252010SR33MBCA	0.33	13	19	6.5	6.2	7.6	7.2
FTC252010SR33MGCA	0.33	13	19	6.5	6.2	7.6	7.2
FTC252010SR47MBCA	0.47	15	22	6.1	5.6	6.9	6.5
FTC252010SR47MGCA	0.47	15	22	6.1	5.6	6.9	6.5
FTC252010SR47MBCD	0.47	13	15	6.5	6.0	6.6	6.0
FTC252010SR68MBCA	0.68	23	27	5.6	5.0	5.9	5.5
FTC252010S1R0MBCA	1.0	25	30	4.5	4.1	5.3	4.8
FTC252010S1R0MGCA	1.0	25	30	4.5	4.1	5.3	4.8
FTC252010S1R5MBCA	1.5	45	55	3.4	3.0	4.3	3.9
FTC252010S1R5MGCA	1.5	45	55	3.4	3.0	4.3	3.9
FTC252010S2R2MBCA	2.2	62	70	2.4	2.1	3.3	3.0
FTC252010S2R2MGCA	2.2	62	70	2.4	2.1	3.3	3.0
FTC252010S2R2MBCB	2.2	62	70	2.6	2.3	3.7	3.3
FTC252010S2R2MBCD	2.2	62	70	4.0	3.2	3.4	3.1
FTC252010S3R3MBCA	3.3	86	100	2.5	2.1	2.8	2.5
FTC252010S3R3MGCA	3.3	86	100	2.5	2.1	2.8	2.5
FTC252010S4R7MBCA	4.7	160	180	2.0	1.6	2.6	2.0
FTC252010S4R7MGCA	4.7	160	180	2.0	1.6	2.6	2.0
FTC252010S4R7MBCD	4.7	145	160	2.0	1.6	2.6	2.0
FTC252010S6R8MBCA	6.8	270	320	1.6	1.4	2.4	1.9
FTC252010S100MBCA	10.0	500	560	1.05	0.95	1.55	1.4
FTC252010S100MGCA	10.0	500	560	1.05	0.95	1.55	1.4
FTC252010S220MGCA	22.0	1100	1300	0.85	0.6	1.1	0.9

FTC252012S(2.5\*2.0\*1.2mm)

P/N	L0(μH)	Rdc(mΩ)	Heat rating current Irms(A)	Saturation current Isat(A)
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	@(0A) 1MHz	Typical	Max	Typical	Max	Typical	Max
FTC252012SR10MBCA	0.1	6	10	12	10.5	13.5	12.5
FTC252012SR15MBCA	0.15	7	11	11.5	10	13.0	12.0
FTC252012SR22MBCA	0.22	9	14	8.2	7.6	9.6	9.0
FTC252012SR24MBCA	0.24	10	15	8.0	7.5	9.3	8.8
FTC252012SR24MGCA	0.24	10	15	8.0	7.5	9.3	8.8
FTC252012SR33MBCA	0.33	11	17	6.8	6.4	8.3	7.8
FTC252012SR47MBCA	0.47	13	19	6.5	6.0	7.5	7.0
FTC252012SR47MBCD	0.47	11	13	8.0	7.5	8.5	8.0
FTC252012SR47MGCD	0.47	11	13	8.0	7.5	8.5	8.0
FTC252012SR68MBCA	0.68	17	23	6.3	5.5	6.5	6.0
FTC252012SR68MBCD	0.68	15	18	7.5	7.0	6.7	6.0
FTC252012SR82MBCA	0.82	19	24	5.8	5.3	6.5	5.8
FTC252012S1R0MBCA	1.0	35	42	4.0	3.6	5.6	5.0
FTC252012S1R0MBCD	1.0	16	22	5.2	4.5	6.5	6.0
FTC252012S1R0MGCD	1.0	16	22	5.2	4.5	6.5	6.0
FTC252012S1R0MBCF	1.0	30	36	5.5	5.0	5.6	5.0
FTC252012S1R2MBCA	1.2	40	45	3.8	3.4	4.5	4.1
FTC252012S1R5MBCA	1.5	44	50	3.7	3.2	4.5	4.1
FTC252012S1R5MBCD	1.5	27	32	4.6	4.2	4.7	4.4
FTC252012S1R5MGCA	1.5	44	50	3.7	3.2	4.5	4.1
FTC252012S2R2MBCA	2.2	55	65	3.0	2.7	3.8	3.3
FTC252012S2R2MGCA	2.2	55	65	3.0	2.7	3.8	3.3
FTC252012S3R3MBCA	3.3	80	97	2.3	1.8	3.0	2.7
FTC252012S4R7MBCA	4.7	150	170	1.8	1.5	2.4	2.1
FTC252012S4R7MGCA	4.7	150	170	1.8	1.5	2.4	2.1
FTC252012S6R8MBCA	6.8	245	270	1.6	1.4	2.0	1.7
FTC252012S100MBCA	10.0	330	400	1.2	1.05	1.6	1.45
FTC252012S100MGCA	10.0	330	400	1.2	1.05	1.6	1.45

8>3225 Series  
FTC322510S(3.2\*2.5\*1.0mm)

P/N	L0(μH) @(0A) 1MHz	Rdc(mΩ)		Heat rating current I <sub>rms</sub> (A)		Saturation current I <sub>sat</sub> (A)	
		Typical	Max	Typical	Max	Typical	Max
FTC322510SR22MBCA	0.22	9	11	8.5	8.0	8.5	8.0
FTC322510SR33MBCA	0.33	11	15	8.3	7.8	8.3	7.8

FTC322510SR47MBCA	0.47	17	22	6.4	5.9	8.3	7.6
FTC322510SR68MBCA	0.68	22	28	6.2	5.7	7.5	7.0
FTC322510S1R0MBCA	1.0	25	30	5.4	4.9	6.0	5.3
FTC322510S1R5MBCA	1.5	34	42	4.0	3.6	5.0	4.4
FTC322510S2R2MBCA	2.2	55	66	3.7	3.4	4.0	3.5
FTC322510S3R3MBCA	3.3	105	120	2.7	2.3	3.7	3.3
FTC322510S4R7MBCA	4.7	125	140	2.3	1.9	2.8	2.5
FTC322510S6R8MBCA	6.8	290	320	1.9	1.6	2.4	2.0
FTC322510S100MBCA	10.0	325	365	2.2	1.8	2.2	1.8

FTC322512S(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
FTC322512SR10MBCA	0.10	5.2	7.0	12.0	11.0	18.0	16.5
FTC322512SR22MBCA	0.22	6.6	10	9.2	8.7	11.5	11.0
FTC322512SR22MGCA	0.22	6.6	10	9.2	8.7	11.5	11.0
FTC322512SR24MBCA	0.24	7.0	12	9.0	8.5	11	10.5
FTC322512SR33MBCA	0.33	9.0	14	8.4	8.1	10	9.5
FTC322512SR47MBCA	0.47	14	19	7.5	7.2	8.6	8.2
FTC322512SR47MGCA	0.47	14	19	7.5	7.2	8.6	8.2
FTC322512SR47MBCD	0.47	11	14	7.5	7.2	8.6	8.2
FTC322512SR68MBCA	0.68	18	23	7.3	6.8	8.1	7.7
FTC322512SR68MBCD	0.68	12	15	7.0	6.5	8.0	7.5
FTC322512S1R0MBCA	1.0	26	30	5.3	4.8	6.6	5.8
FTC322512S1R0MGCA	1.0	26	30	5.3	4.8	6.6	5.8
FTC322512S1R0MBCD	1.0	18	21	5.5	5.0	7.7	7.0
FTC322512S1R5MBCA	1.5	37	44	4.7	4.3	5.1	4.7
FTC322512S2R2MBCA	2.2	58	70	3.6	3.0	4.6	4.2
FTC322512S2R2MBCD	2.2	42	50	4.2	3.7	5.0	4.5
FTC322512S2R2MGCD	2.2	42	50	4.2	3.7	5.0	4.5
FTC322512S3R3MBCA	3.3	75	95	2.9	2.5	3.7	3.2
FTC322512S3R3MGCA	3.3	75	95	2.9	2.5	3.7	3.2
FTC322512S3R3MGCD	3.3	62	67	2.9	2.5	3.7	3.2
FTC322512S4R7MBCA	4.7	115	135	2.3	2.0	2.9	2.6
FTC322512S4R7MBCF	4.7	105	120	2.5	2.1	3.0	2.6
FTC322512S4R7MBCB	4.7	115	135	2.3	2.0	3.2	2.8
FTC322512S6R8MBCA	6.8	177	210	2.1	1.9	2.8	2.4
FTC322512S100MBCA	10.0	210	230	2.2	1.8	2.3	1.9

FTC322520S(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
FTC322520SR33MBCA	0.33	7.5	9	9.5	9	15.5	14
FTC322520SR47MBCA	0.47	9	10.5	9.5	8.5	15	13
FTC322520SR68MBCA	0.68	12.5	14.5	9.0	8.0	13	11
FTC322520S1R0MBCA	1.0	15	17.5	8.2	7.5	9.0	8.3
FTC322520S1R5MBCA	1.5	22	25	6.5	6.0	6.8	6.0
FTC322520S2R2MBCA	2.2	36	43	5.4	4.8	6.5	5.5
FTC322520S3R3MBCA	3.3	55	60	4.5	4.0	4.5	3.5
FTC322520S4R7MBCA	4.7	81	94	3.5	3.0	4.0	3.0
FTC322520S6R8MBCA	6.8	101	125	2.8	2.3	3.8	2.9

9>3030 Series

FTC303010(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
FTC303010D6R8MBCA	6.8	225	270	2.1	1.8	1.8	1.5
FTC303010D100MBCA	10.0	320	360	2.0	1.7	1.6	1.3

FTC303012(3.0\*3.0\*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
FTC303012D1R0MBCA	1.0	23	27	5.5	5.0	6.0	5.5
FTC303012D4R7MBCA	4.7	100	120	3.0	2.5	3.0	2.5
FTC303012D100MBCA	10.0	192	220	2.3	1.9	2.3	2.0
FTC303012D150MBCA	15.0	345	380	1.6	1.3	1.9	1.6

FTC303015(3.0\*3.0\*1.5mm)

P/N	L0(μH) @(0A) 1MHz	Rdc(mΩ)		Heat rating current Irms(A)		Saturation current Isat(A)	
		Typical	Max	Typical	Max	Typical	Max
FTC303015DR15MBCA	0.15	5.0	6.0	12.0	11.0	16.0	15.0
FTC303015DR47MBCA	0.47	9	11	9.0	8.0	10.0	9.0
FTC303015D1R0MBCA	1.0	18	22	6.0	5.5	7.0	6.5
FTC303015D2R2MBCA	2.2	42	50	4.5	4.0	5.0	4.5
FTC303015D4R7MBCA	4.7	87	104	3.5	3.0	4.0	3.5

FTC303015D6R8MBCA	6.8	160	180	2.5	2.0	3.5	3.0
FTC303015D100MBCA	10.0	185	215	2.0	1.5	2.8	2.5
FTC303015D220MBCA	22.0	580	700	1.2	1.0	1.6	1.2

FTC303018(3.0\*3.0\*1.8mm)

P/N	L0(μH) @(0A) 1MHz	Rdc(mΩ)		Heat rating current Irms(A)		Saturation current Isat(A)	
		Typical	Max	Typical	Max	Typical	Max
FTC303018DR22MBCA	0.22	5.5	7.0	10.0	9.0	17	16
FTC303018DR47MBCA	0.47	8	10	9.0	8.0	12	11
FTC303018D1R0MBCA	1.0	15	21	6.3	5.8	7.6	6.8
FTC303018D1R5MBCA	1.5	20	26	6.8	6.4	8.0	7.0
FTC303018D4R7MBCA	4.7	72	87	3.4	3.0	4.7	4.2

FTC303020(3.0\*3.0\*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
FTC303020DR15MBCA	0.15	4.0	5.0	13.0	12.0	18.0	17.0
FTC303020DR33MBCA	0.33	7.5	9	10.0	9.0	17	15
FTC303020DR50MBCA	0.5	9.0	12	9.0	8.0	15	13
FTC303020DR68MBCA	0.68	13	16	8.5	7.8	13	11
FTC303020D1R0MBCA	1.0	14	20	6.5	6.0	8.0	7.3
FTC303020D1R5MBCA	1.5	19	25	6.3	5.8	7.0	6.5
FTC303020D2R2MBCA	2.2	37	45	4.7	4.3	6.0	5.5
FTC303020D3R3MBCA	3.3	52	63	4.5	4.0	5.9	5.4
FTC303020D4R7MBCA	4.7	60	73	4.2	3.8	4.8	4.0
FTC303020D6R8MBCA	6,8	107	135	3.2	3.0	4.5	3.8
FTC303020D100MBCA	10.0	135	160	2.5	2.2	3.8	3.3
FTC303020D150MBCA	15.0	235	260	1.8	1.5	2.6	2.2

10>4040 Series

FTC404010(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
FTC404010S100MBCA	10	220	280	2.5	2.0	2.2	2.0

FTC404012(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

FTC404012SR47MBCA	0.47	11.5	14	9.0	8.5	12	11.5
FTC404012SR68MBCA	0.68	15	18	8.5	7.5	10	9.0
FTC404012S1R0MBCA	1.0	21	25	6.3	5.5	11	10
FTC404012S1R5MBCA	1.5	29	34.5	6.0	5.0	8.0	7.0
FTC404012S2R2MBCA	2.2	45	55	5.0	4.5	6.5	6.0
FTC404012S3R3MBCA	3.3	67	80	4.5	4.0	5.5	5.0
FTC404012S4R7MBCA	4.7	90	110	3.5	3.0	5.0	4.5
FTC404012S5R6MBCA	5.6	116	140	3.0	2.5	4.5	4.0
FTC404012S6R8MBCA	6.8	132	160	2.8	2.3	3.8	3.5
FTC404012S100MBCA	10.0	200	235	2.5	2.0	2.8	2.5

FTC404020(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
FTC404020SR33MBCA	0.33	5.0	6.0	9.5	8.5	18.0	17.0
FTC404020SR47MGCA	0.47	7.0	8.5	8.5	8.0	16.0	15.0
FTC404020SR68MBCA	0.68	5.5	6.2	14	13	13.0	12.0
FTC404020S1R0MGCA	1.0	12	14.5	6.5	6.0	12.5	11.5
FTC404020S1R2MBCA	1.2	10.5	12	10	9.0	10.0	9.0
FTC404020S1R5MGCA	1.5	18	22	6.0	5.5	10.5	9.5
FTC404020S2R2MGCA	2.2	30	36	5.5	5.0	9.5	8.5
FTC404020S3R3MGCA	3.3	35	40	6.3	5.8	8.0	7.0
FTC404020S4R7MGCA	4.7	47	58	5.0	4.0	6.3	5.5
FTC404020S6R8MGCA	6.8	90	105	3.7	3.2	5.4	4.5
FTC404020S100MGCA	10	113	135	3.4	3.0	4.9	4.0
FTC404020S150MGCA	15	210	250	2.3	1.7	3.5	3.0
FTC404020S220MGCA	22	275	330	1.8	1.3	2.9	2.3

FTC404030(4.0\*4.0\*3.0mm)

P/N	L0(μH) @(0A) 1MHz	Rdc(mΩ)		Heat rating current Irms(A)		Saturation current Isat(A)	
		Typical	Max	Typical	Max	Typical	Max
FTC404030SR47MBCA	0.47	5.5	7.0	15	14	23	21
FTC404030SR68MBCA	0.68	8.3	10	9.5	8.0	17	15
FTC404030S1R0MGCA	1.0	10	12	10	9.0	15.5	14
FTC404030S1R5MGCA	1.5	15	18	6.5	6.0	12.5	11
FTC404030S2R2MGCA	2.2	19	22	9.0	8.5	10.5	9.5
FTC404030S3R3MGCA	3.3	30	35	5.3	4.8	8.5	7.5
FTC404030S4R7MGCA	4.7	41	46	4.3	4.0	7.0	6.0
FTC404030S6R8MBCA	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%.

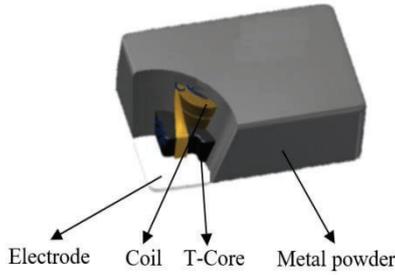
Note 5.: Operating Temperature Range -55°C to + 125°C.

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.

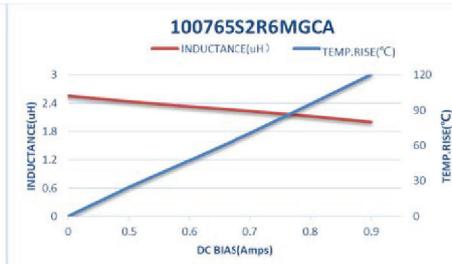
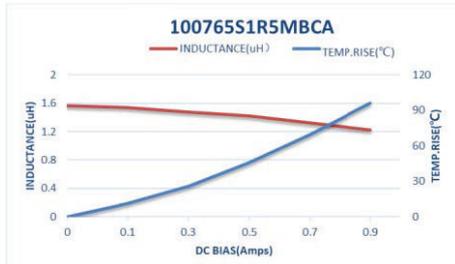
Note 8.: withstand Dc voltage : 20[v]

6. Structure

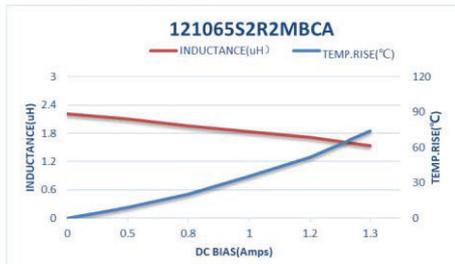


7. Current Characteristic

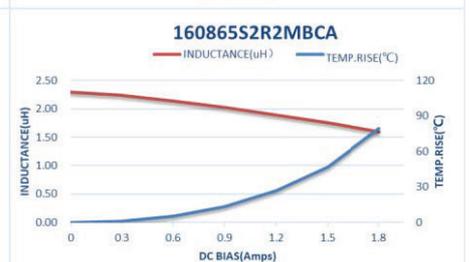
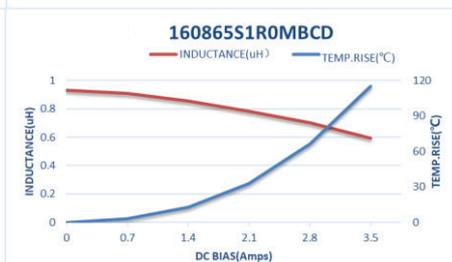
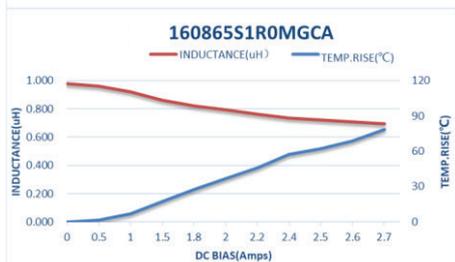
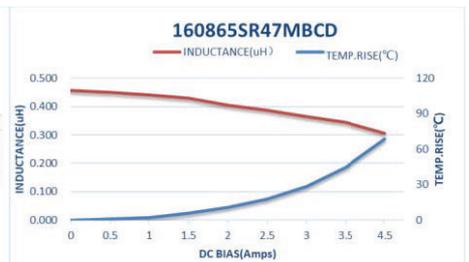
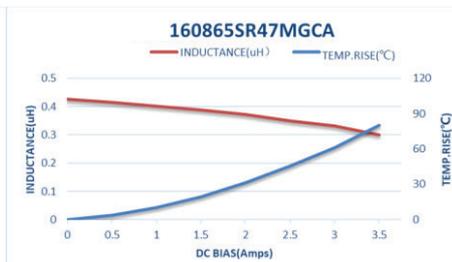
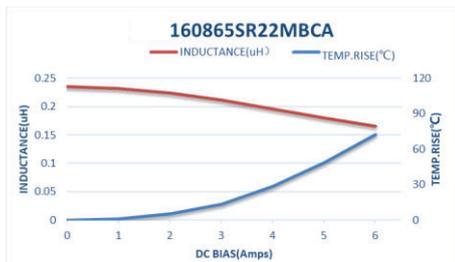
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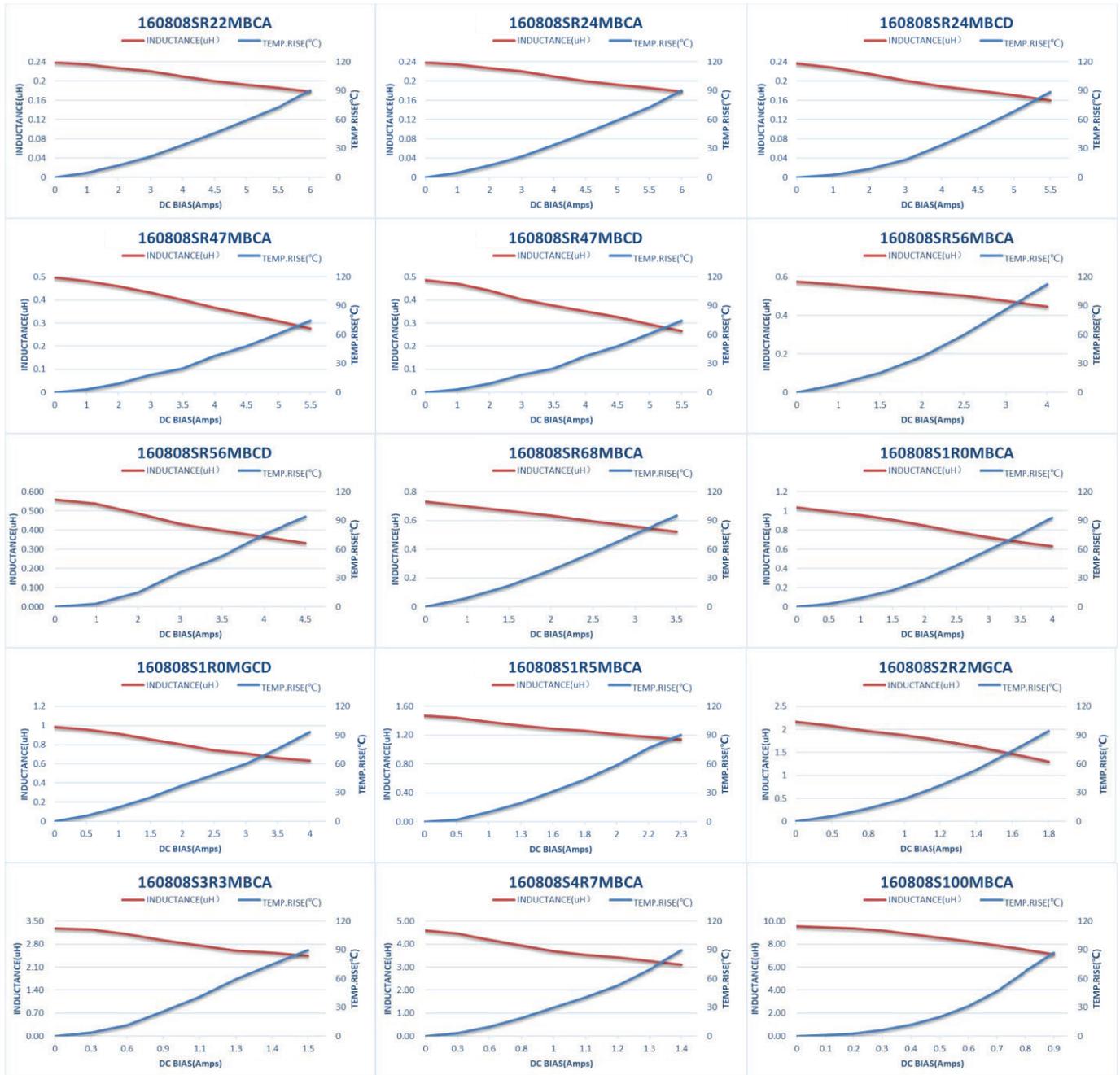


2>1210 Series

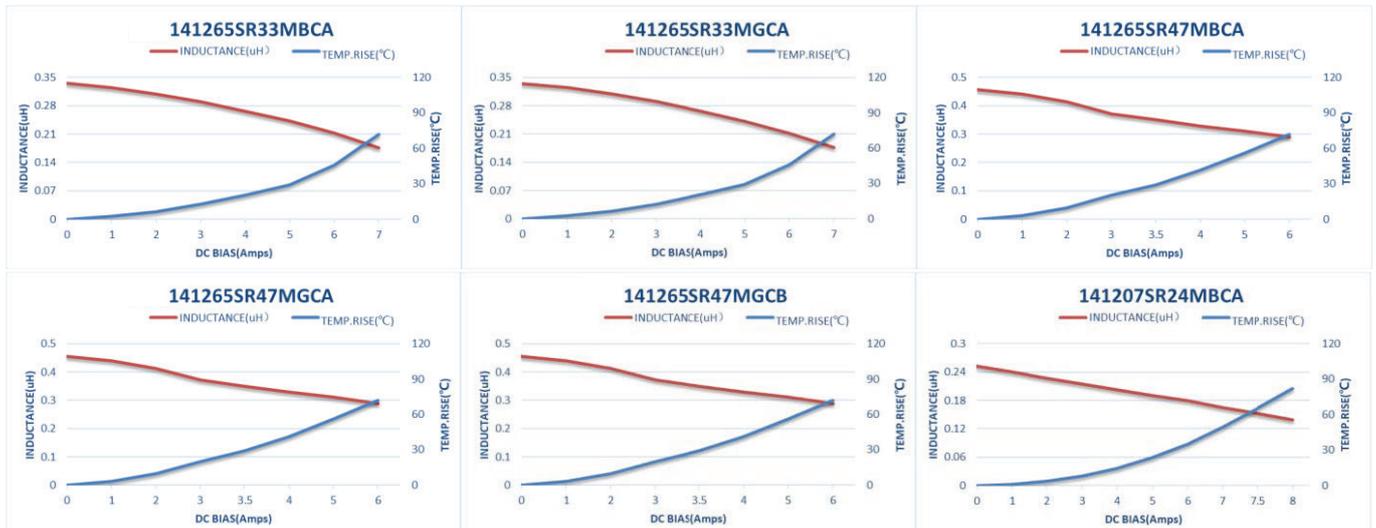


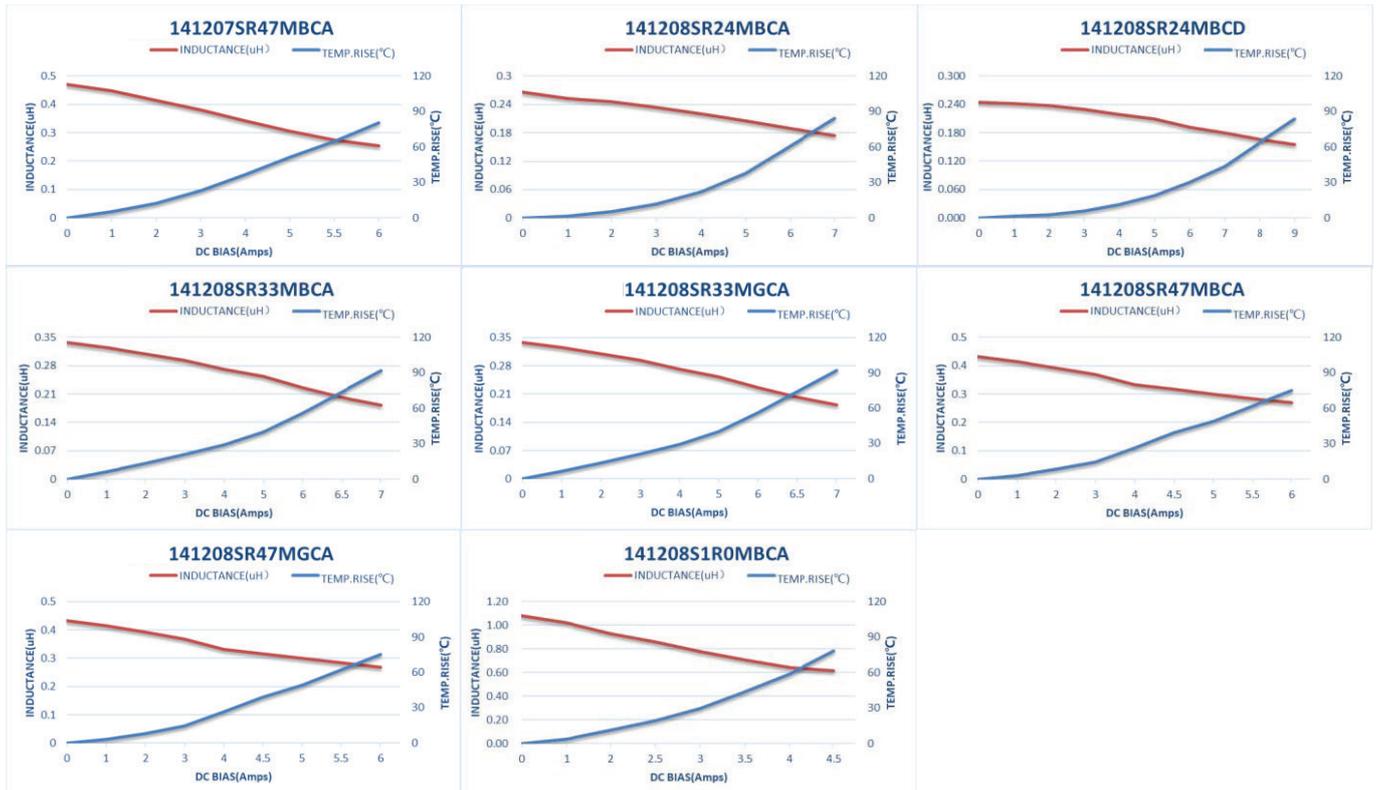
3>1608 Series



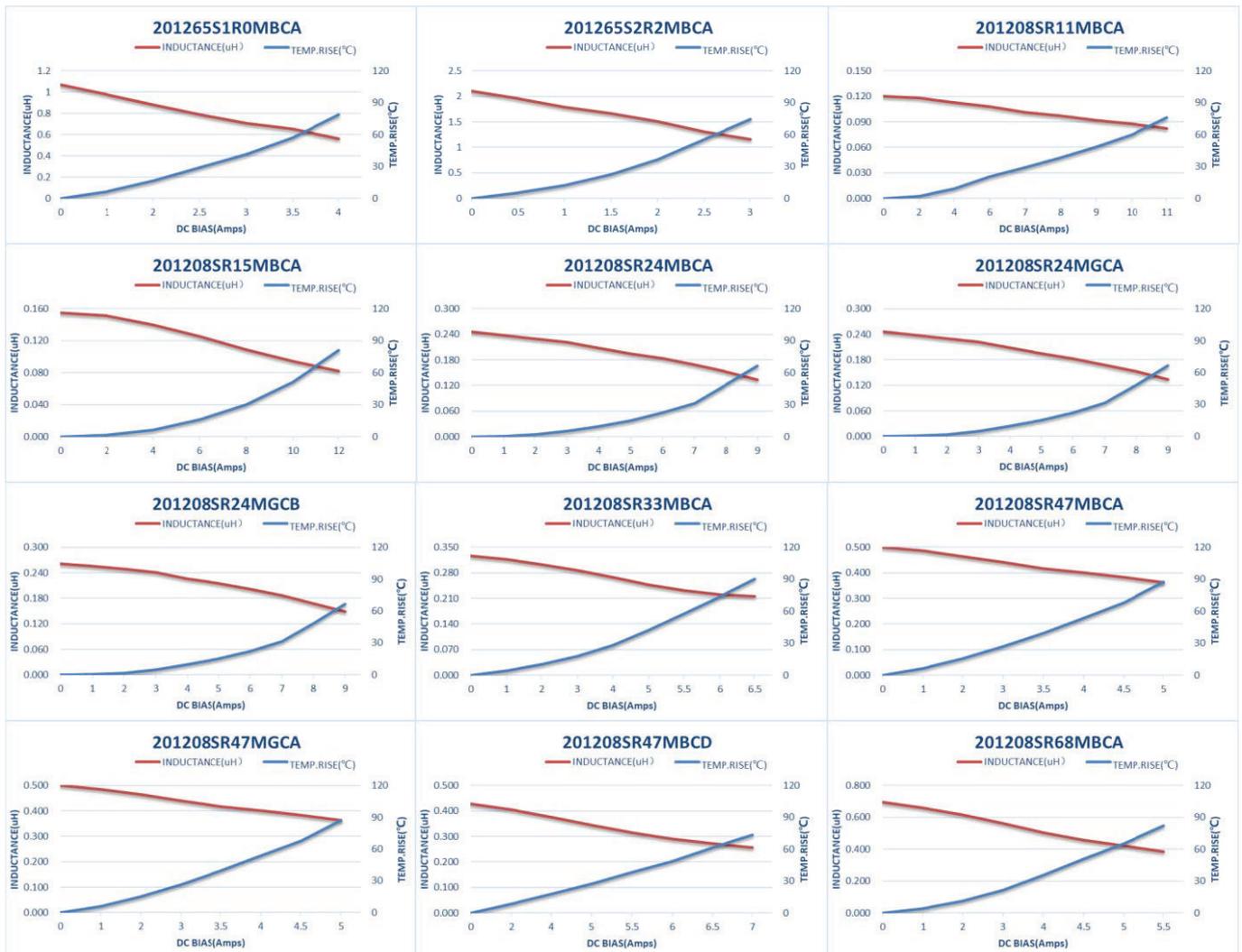


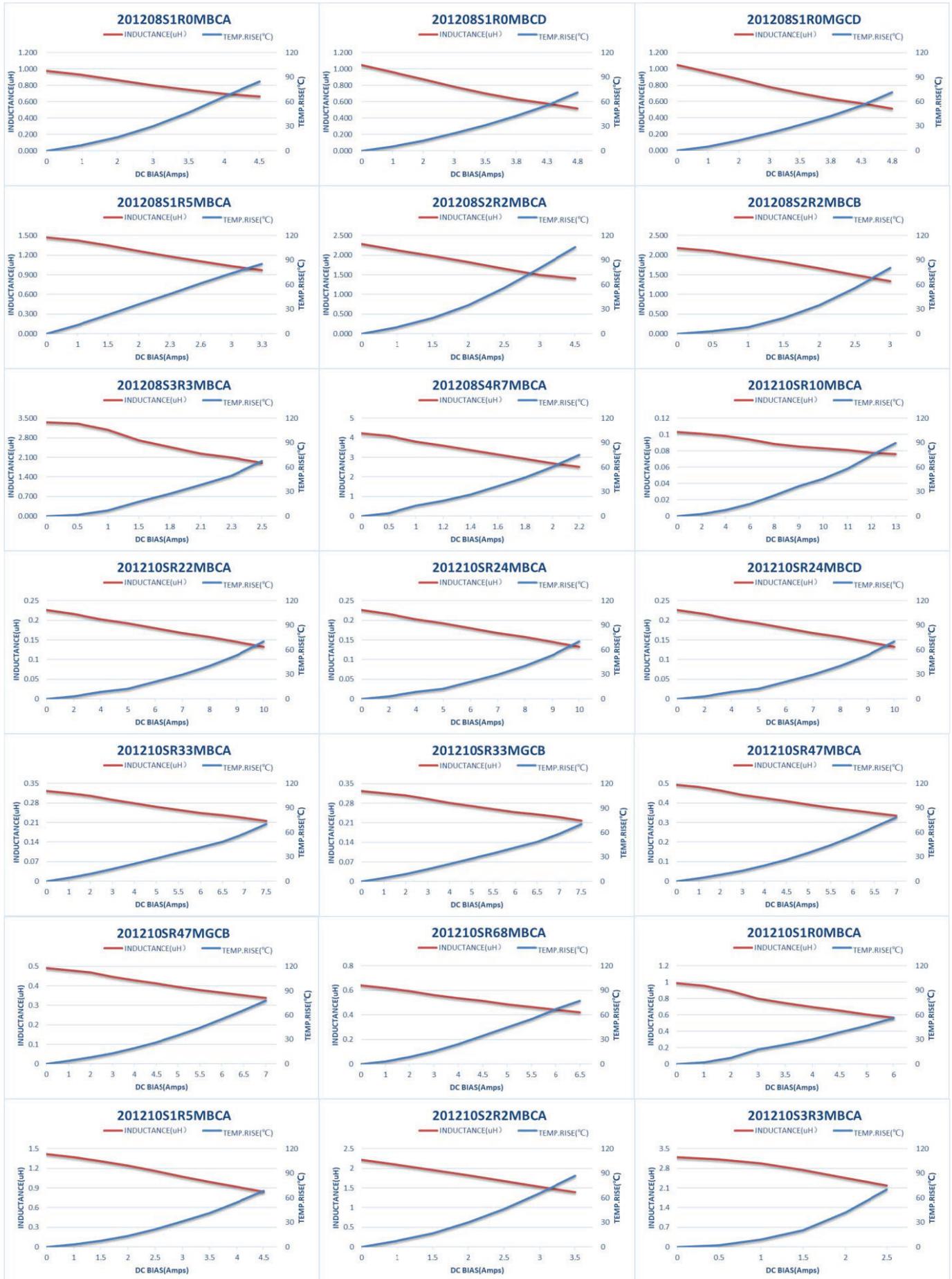
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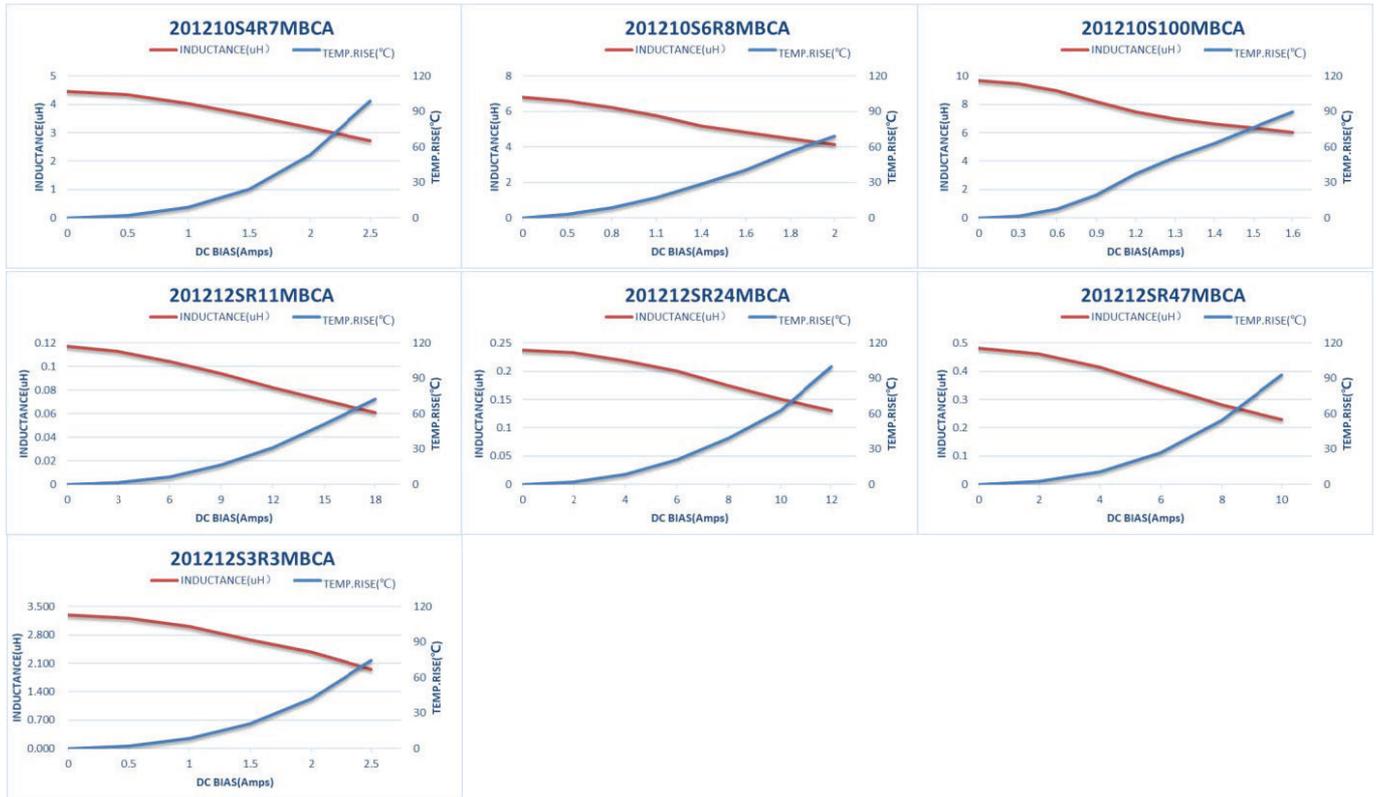




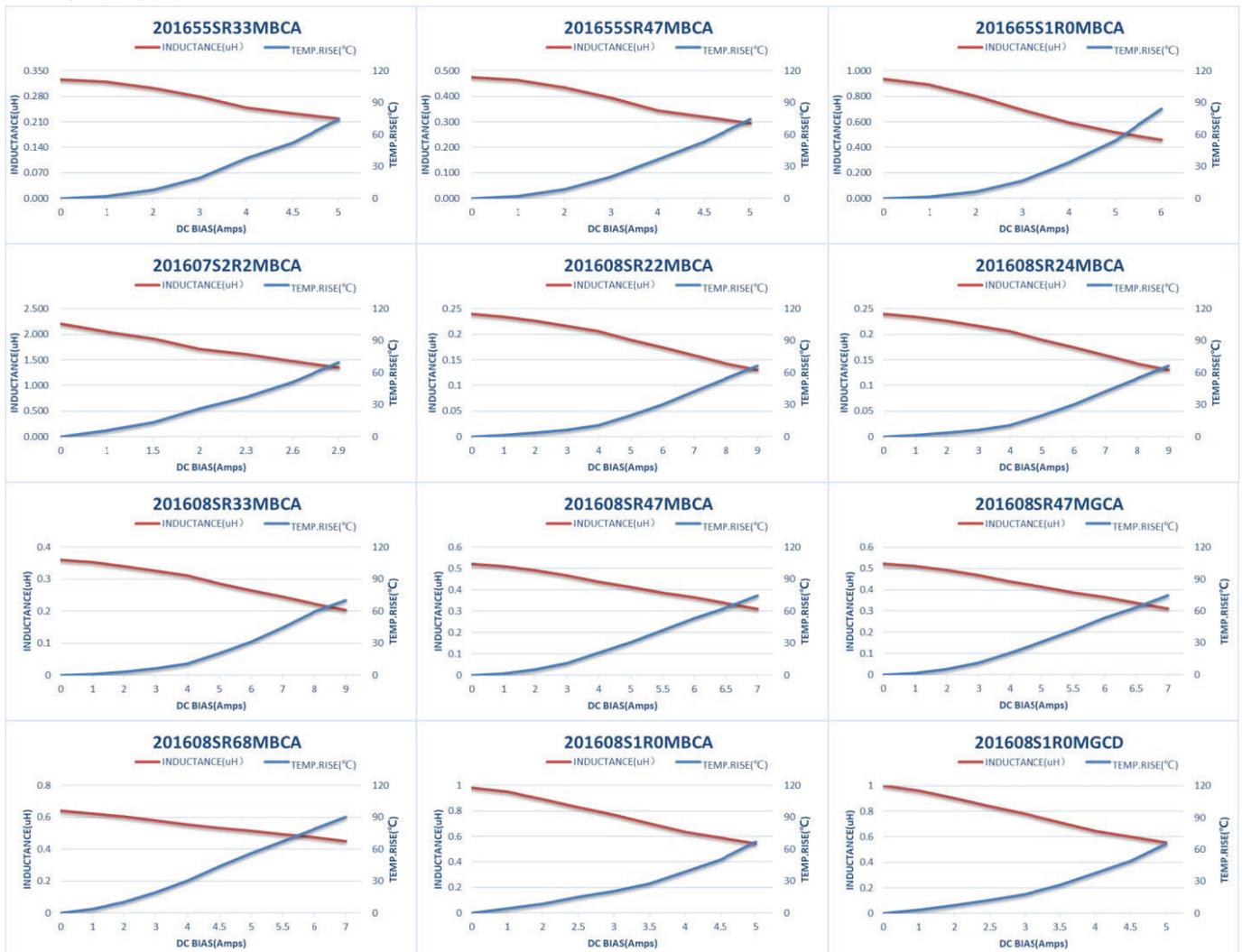
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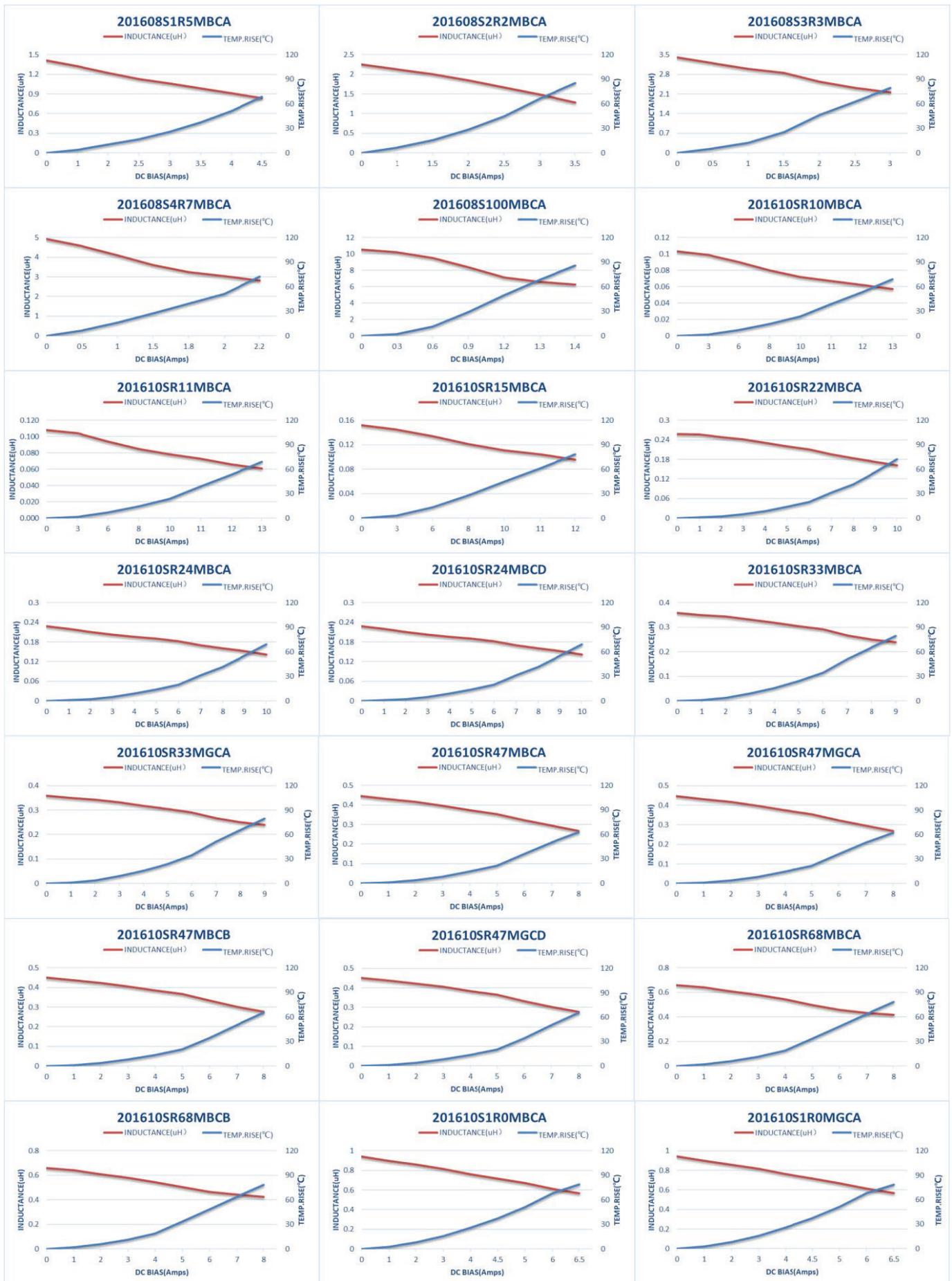


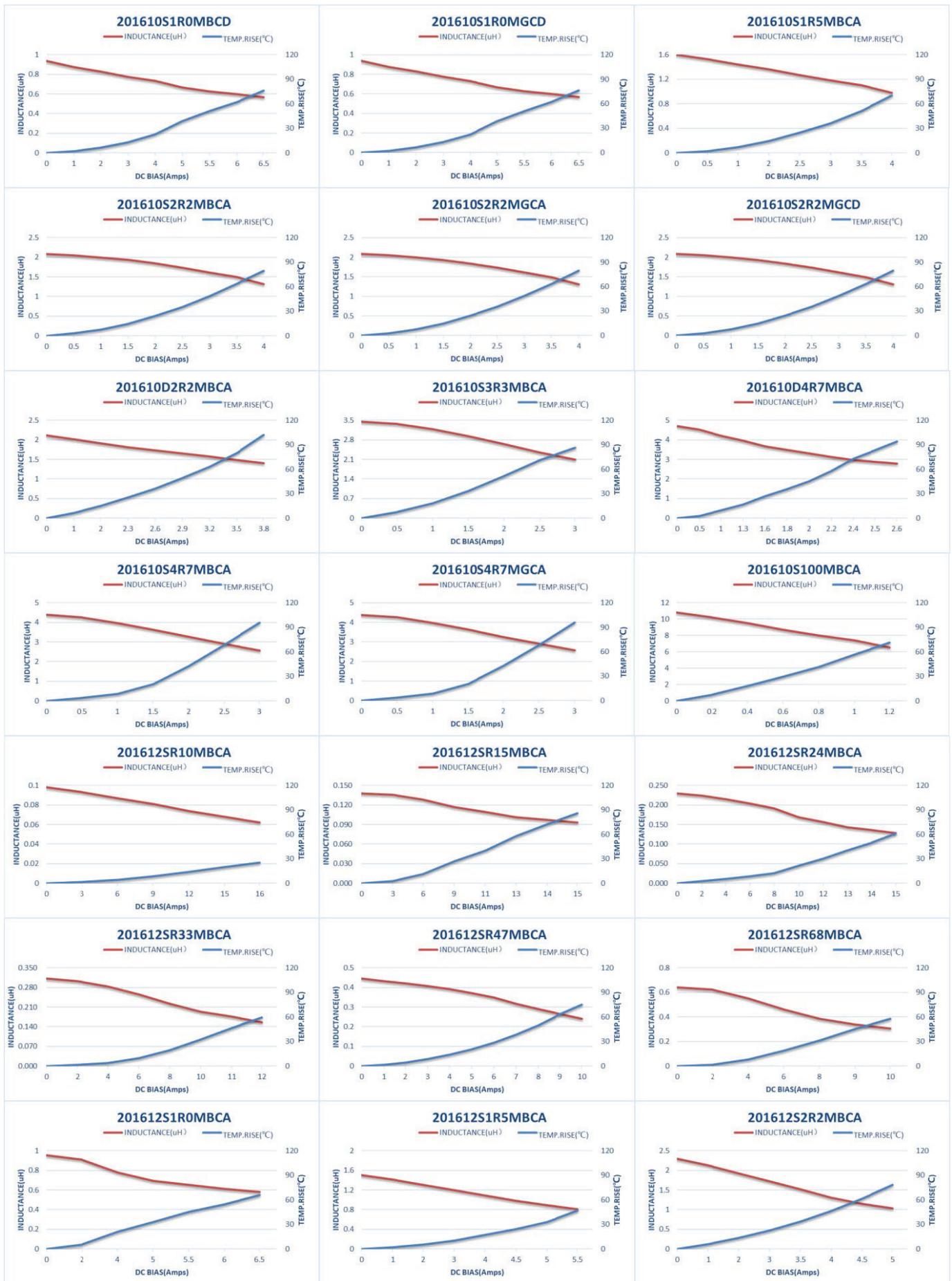


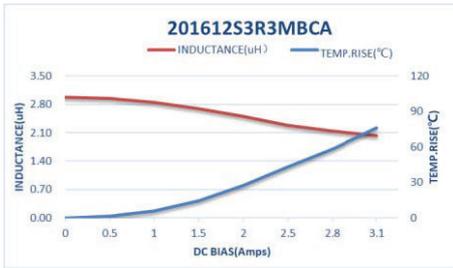


6>2016 Series

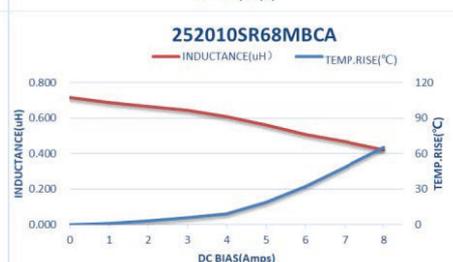
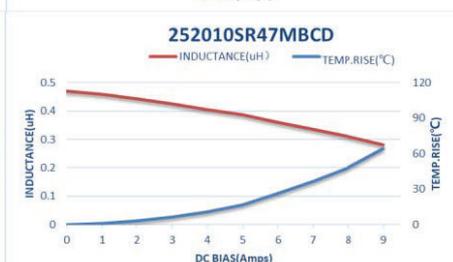
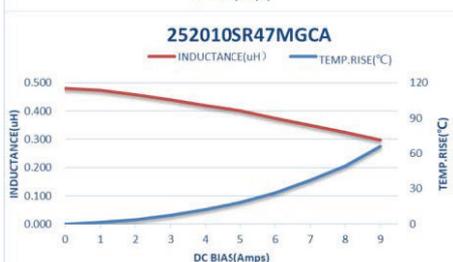
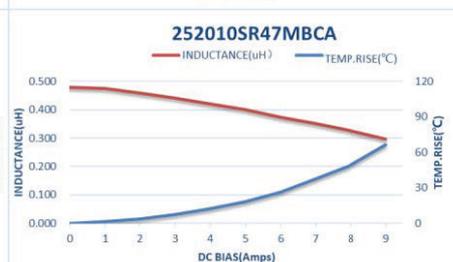
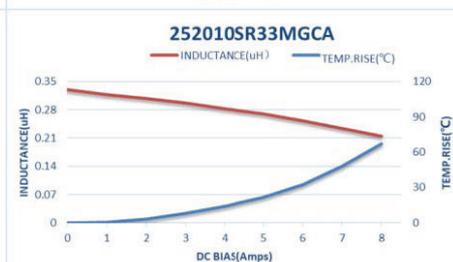
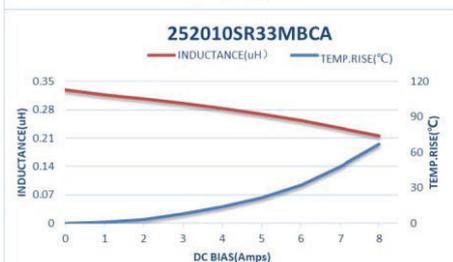
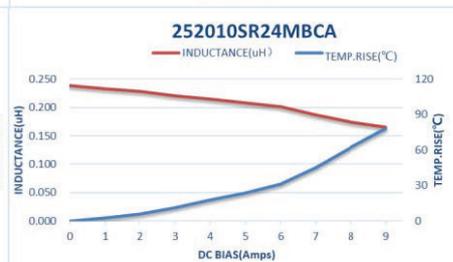
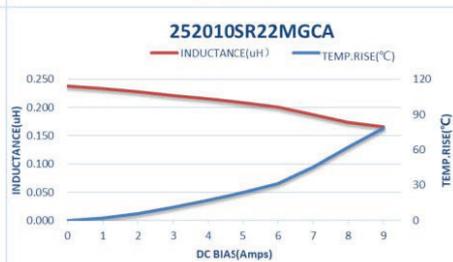
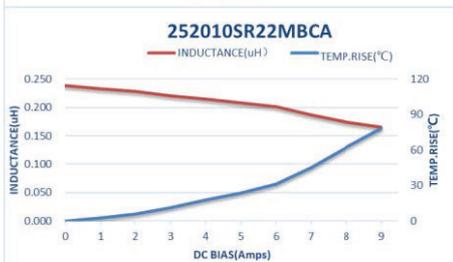
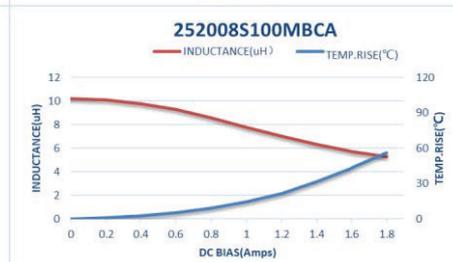
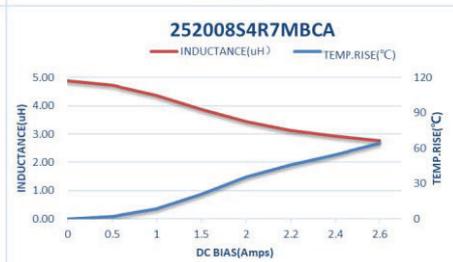
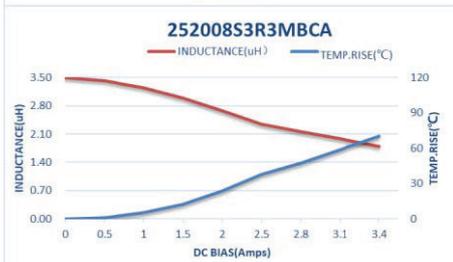
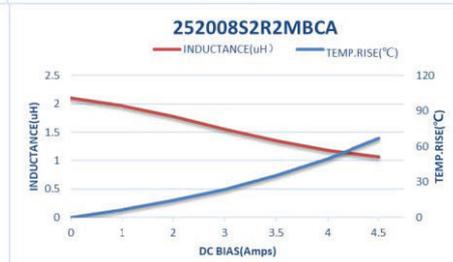
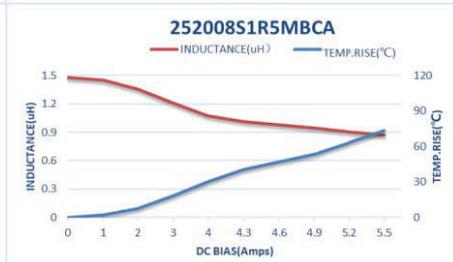
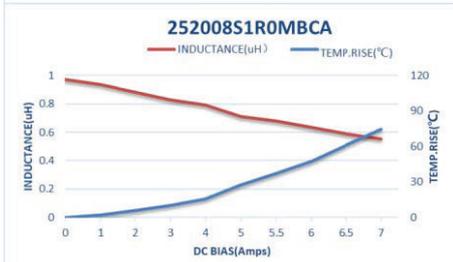
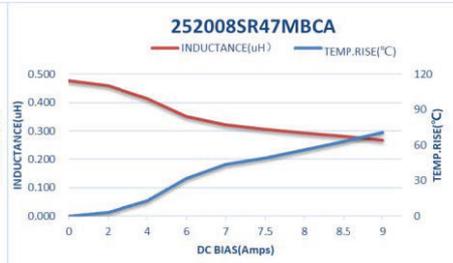
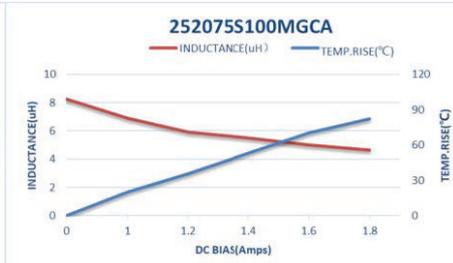
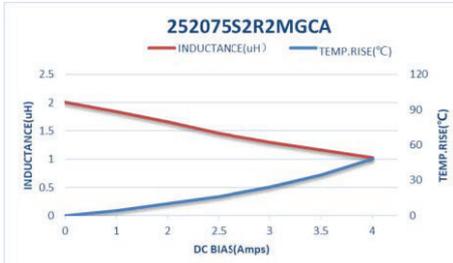


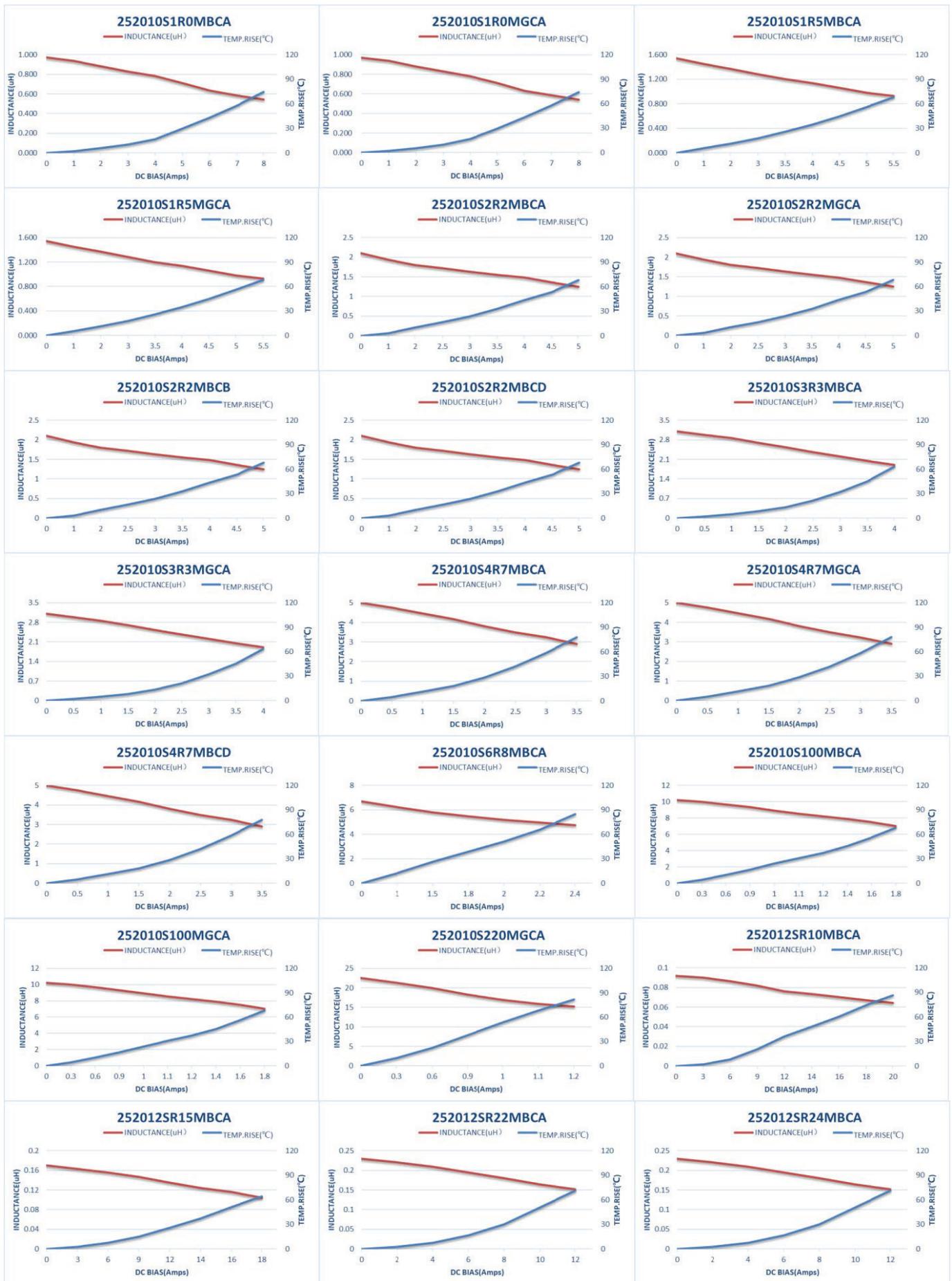


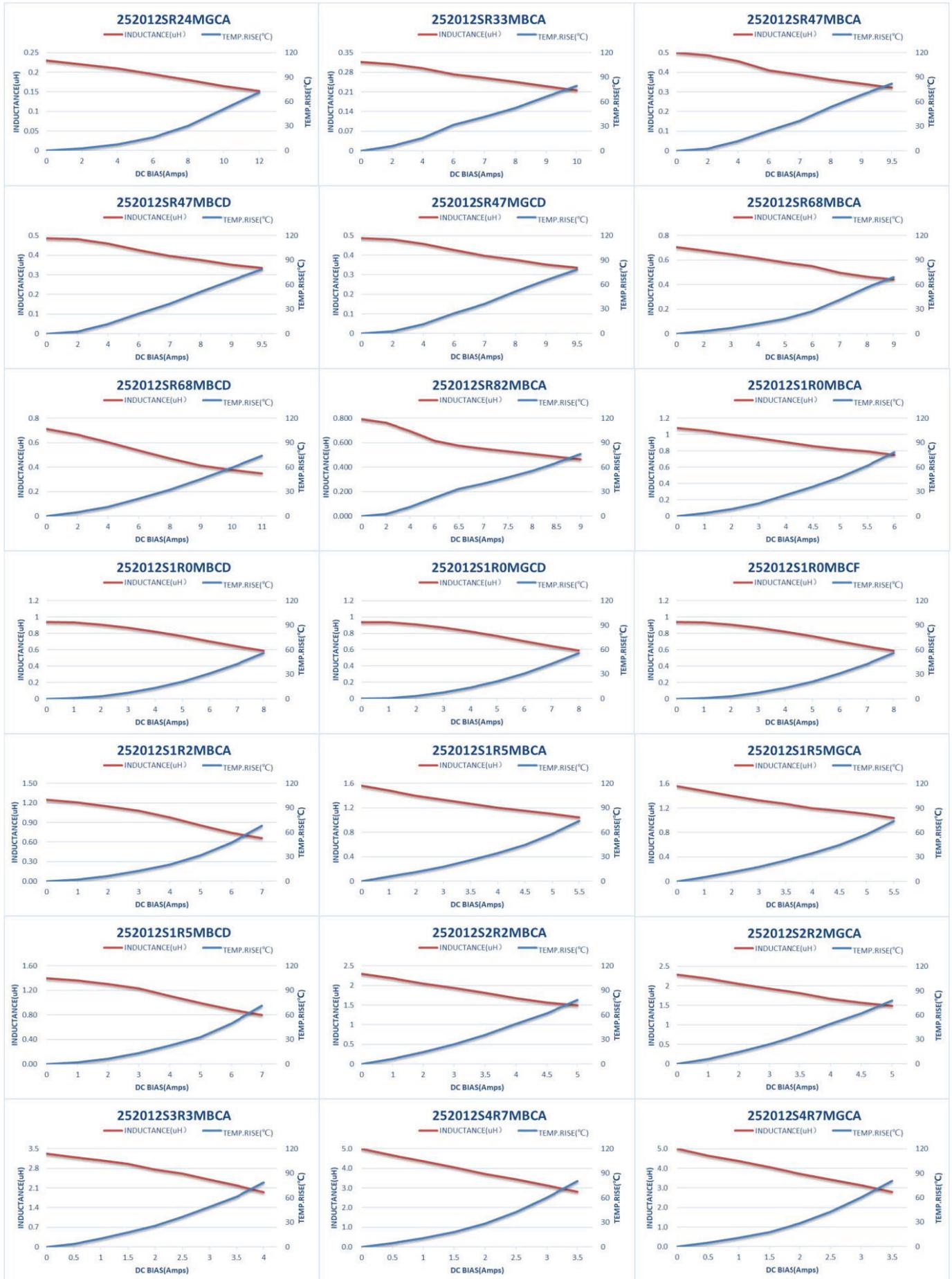


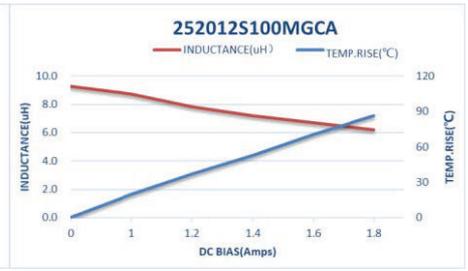
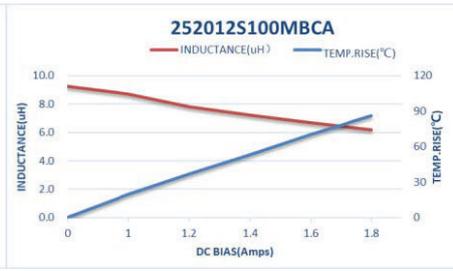
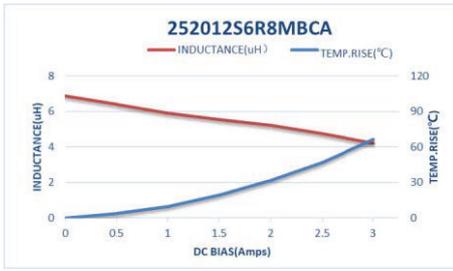


7>2520 Series

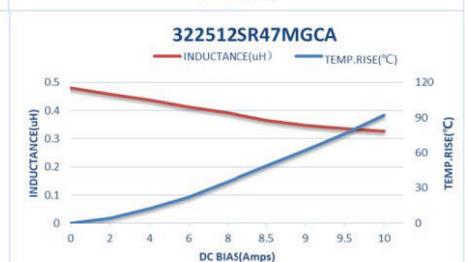
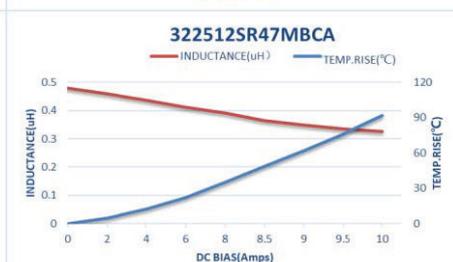
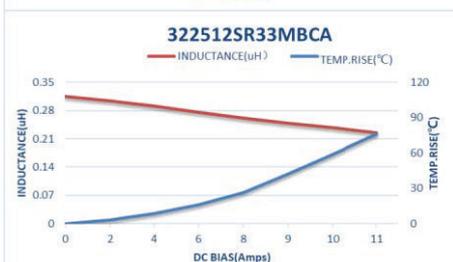
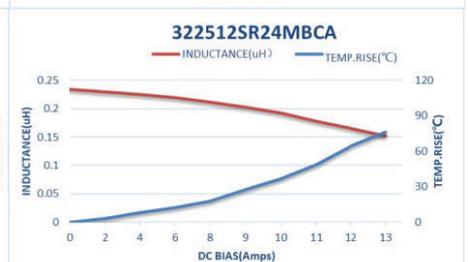
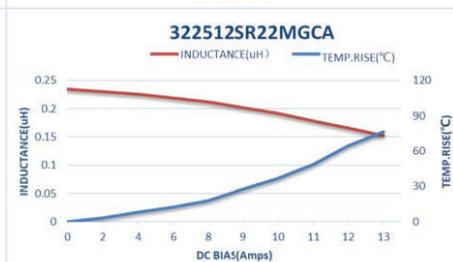
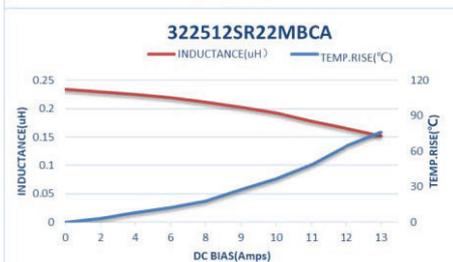
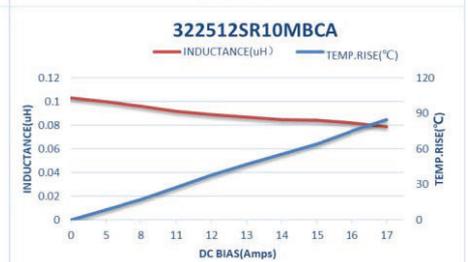
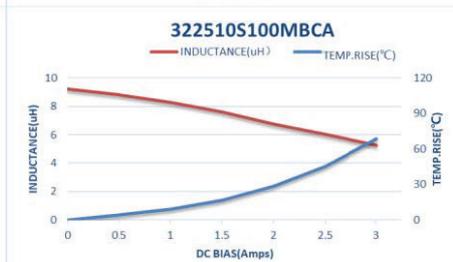
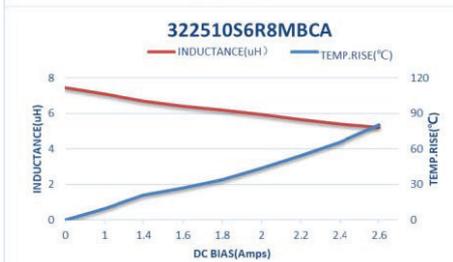
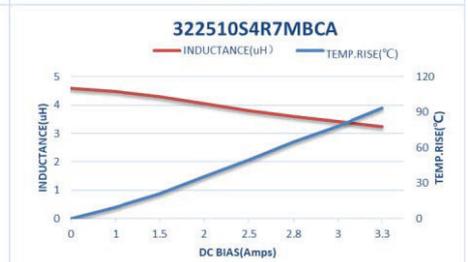
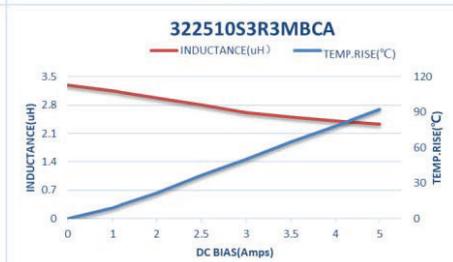
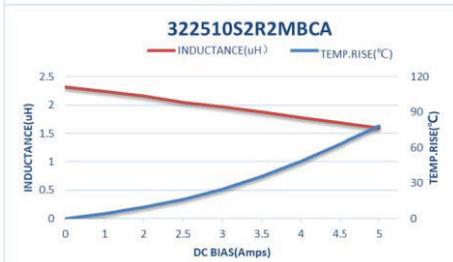
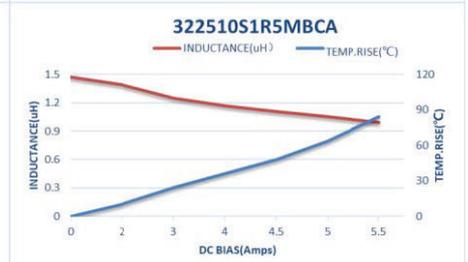
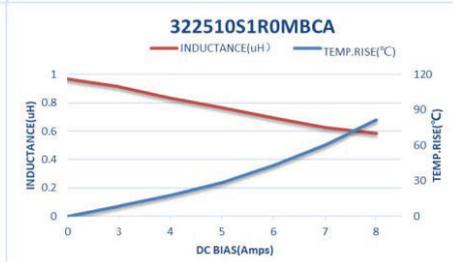
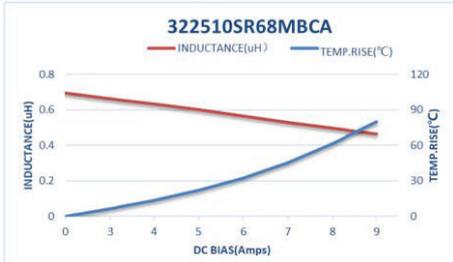
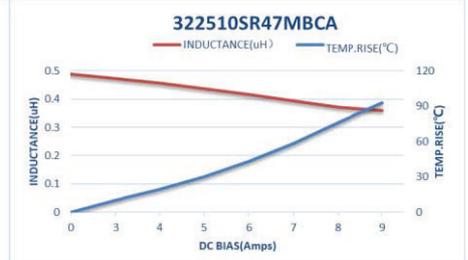
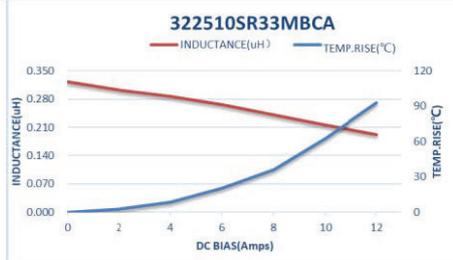
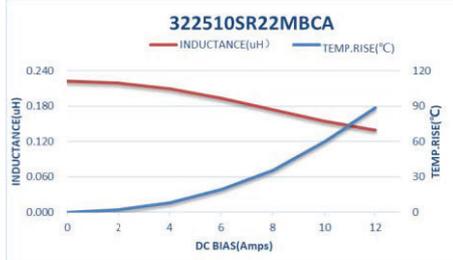


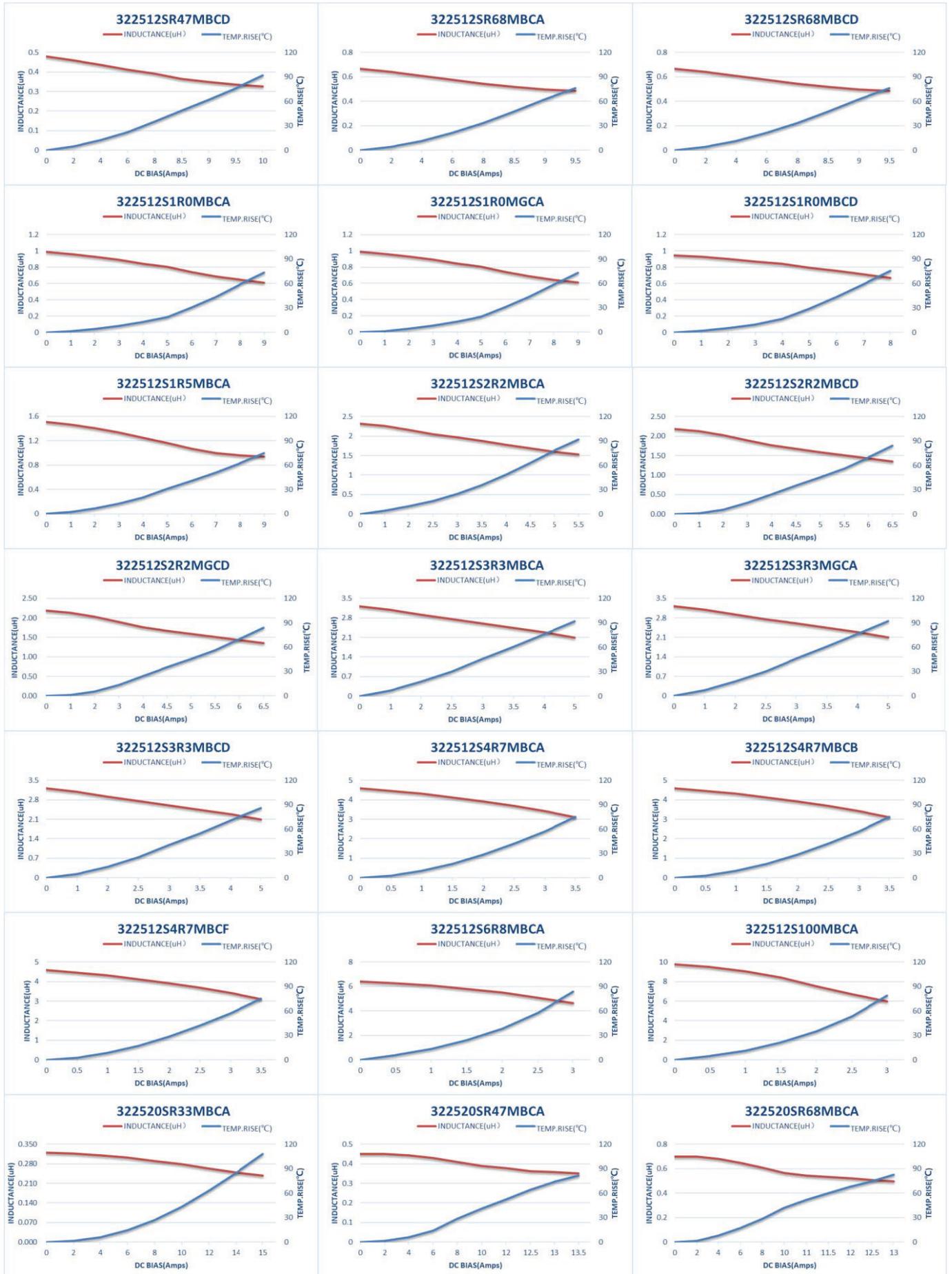


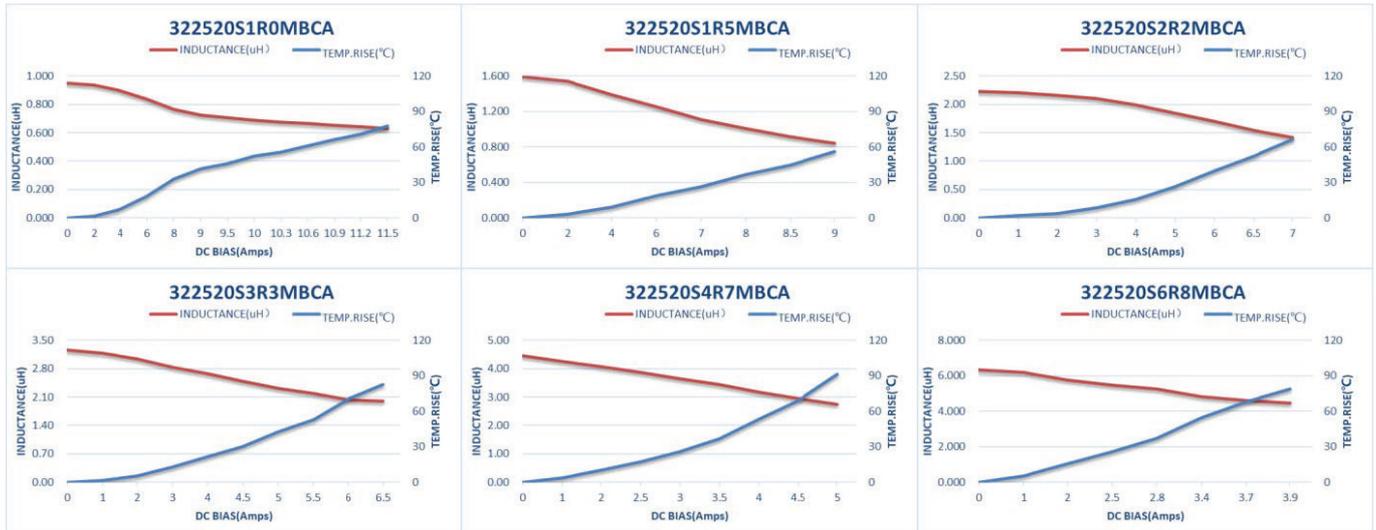




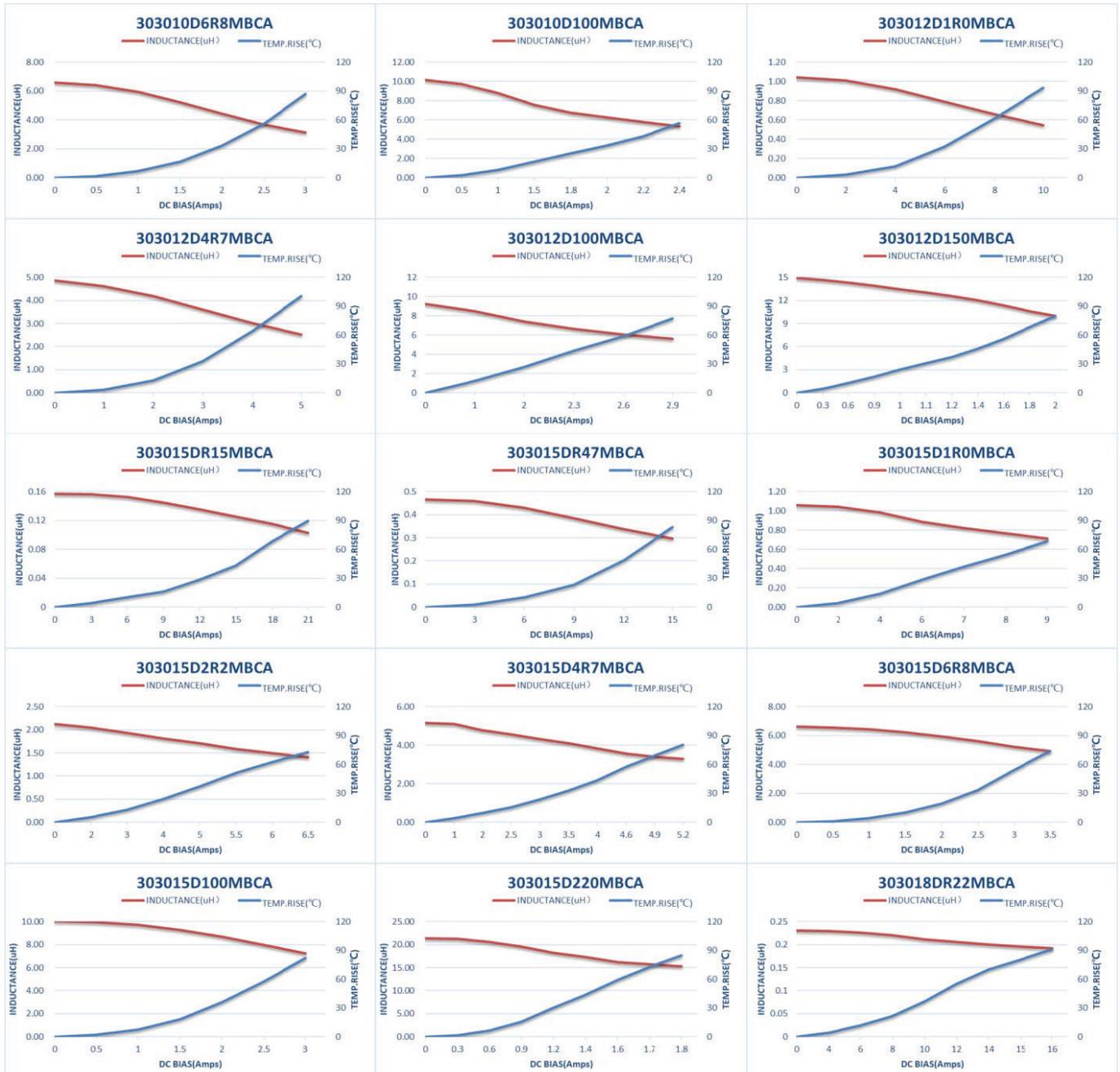
8>3225 Series

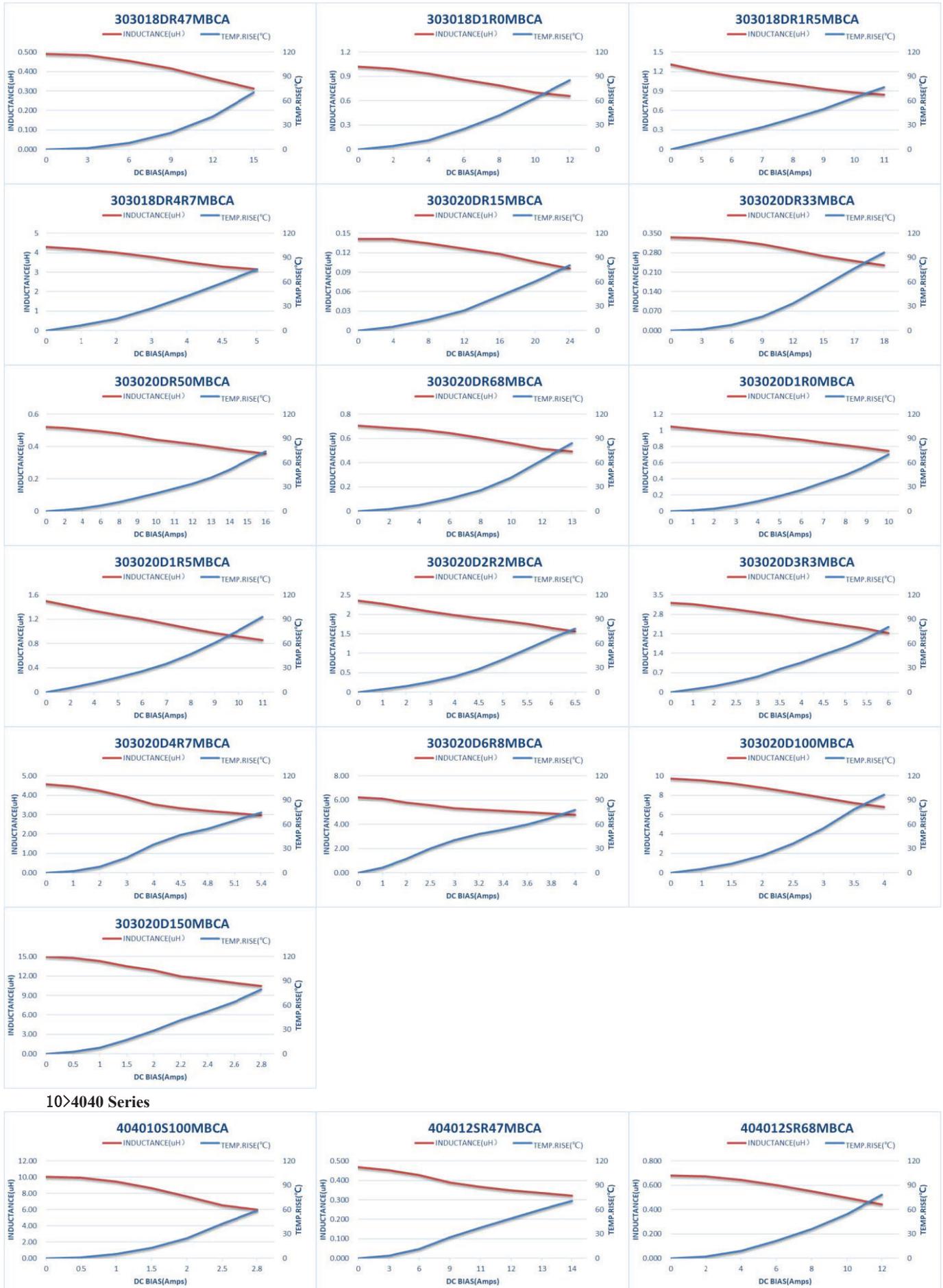




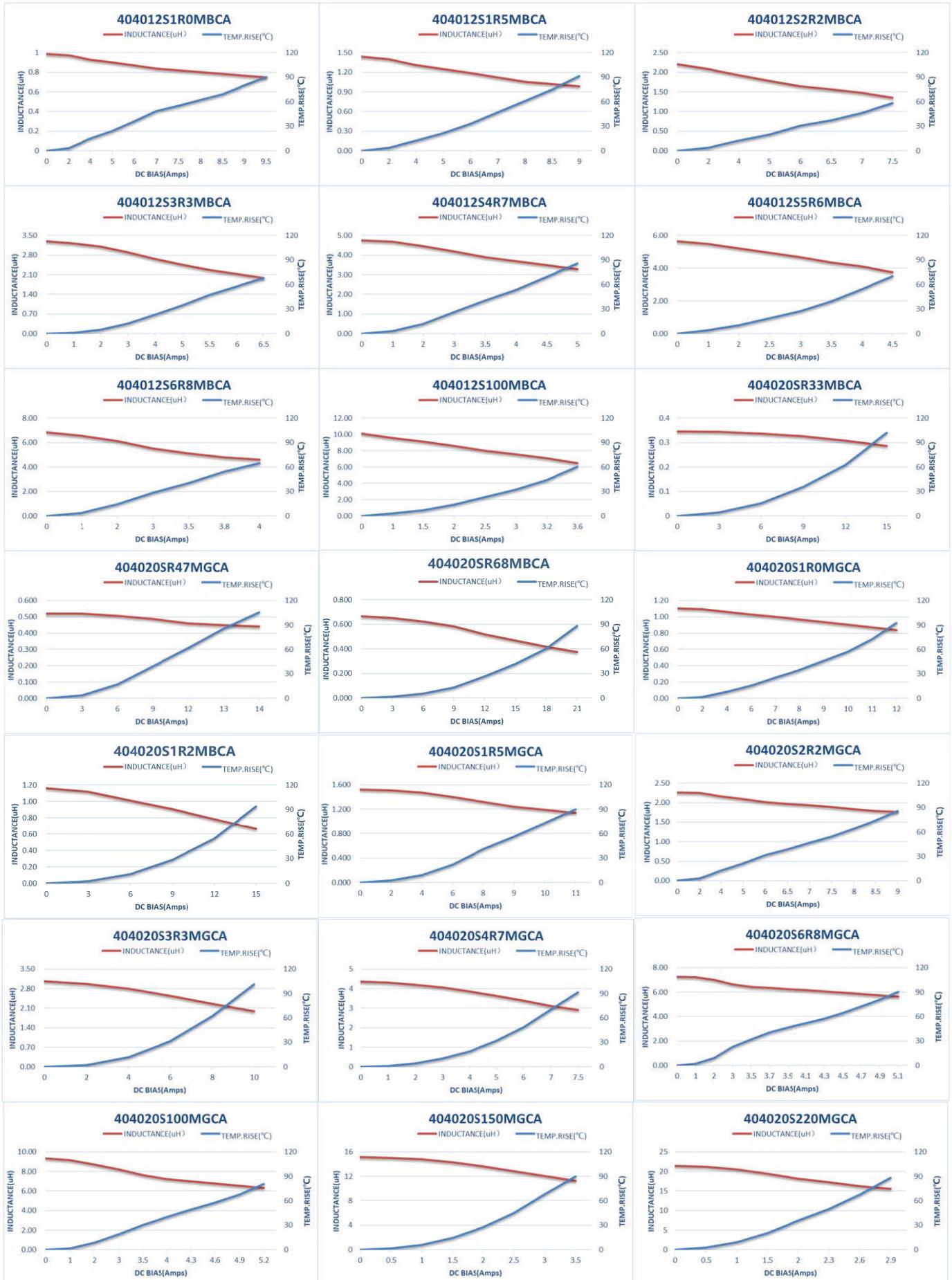


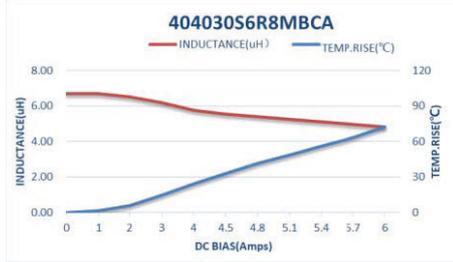
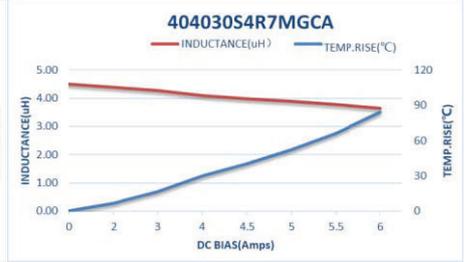
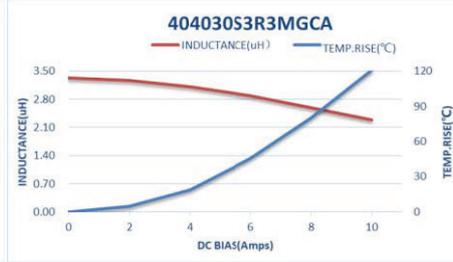
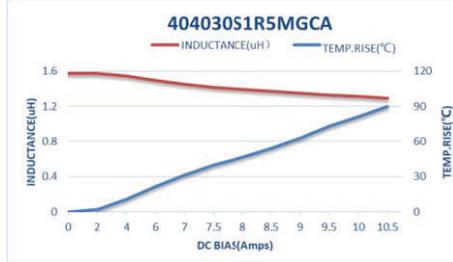
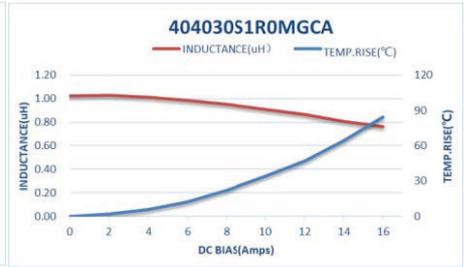
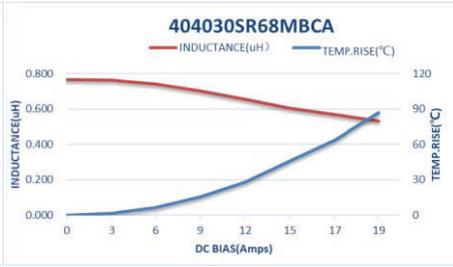
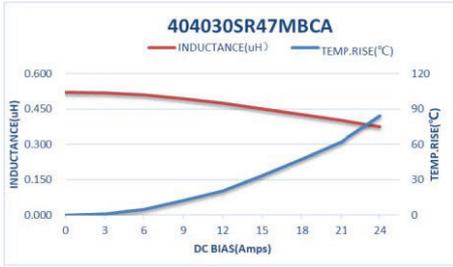
### 9>3030 Series





10>4040 Series





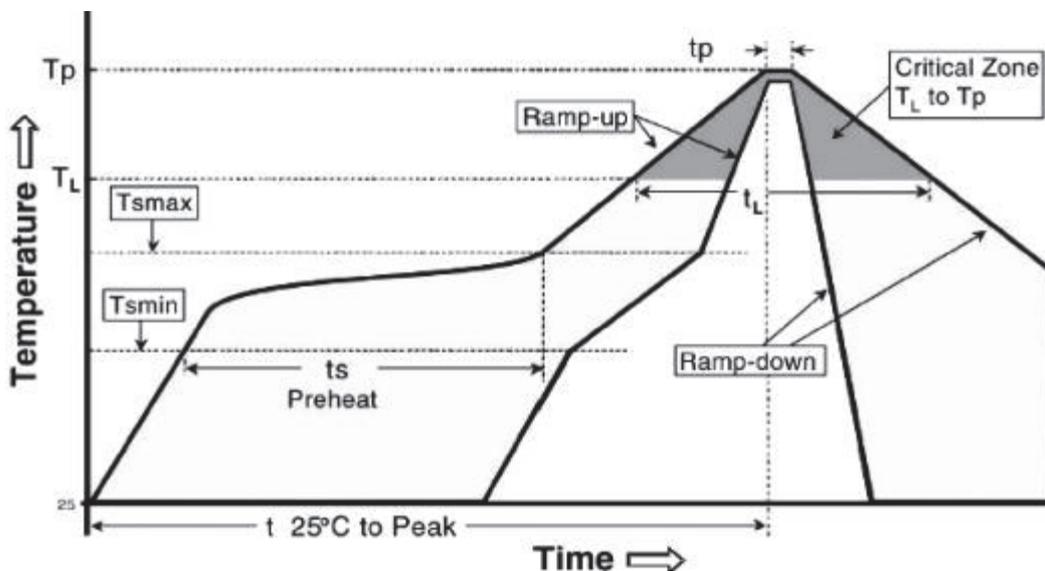
### 8. Reliability

Item	Requirements	Test Methods and Remarks
Insulation Resistance	≥100MΩ	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 ± 5 °C. Immersion Time: (5 ± 1) s.
Resistance to Soldering Heat	No visible mechanical damage. Inductance change: Within ±10%.	Dip pads in flux. Solder Composition: Sn/Ag3.0/Cu0.5(Pb-Free). Solder Temperature: 260 ± 5 °C. Immersion Time: 10±1sec.
Adhesion of teral electrode	Strong bond between the pad and the core, without come off PCB.	Inductors shall be subjected to (260±5)°C for (20±5)s Soldering in the base whit 0.3mm solder. And then aplombelectrode way plus tax 10 N for (10±1) seconds.
High temperature	No case deformation or change in appearance. Inductance change: Within ±10%	Temperature: 125±2 °C. Time : 1000 hours. Measurement at 24±4 hours after test conclusion.
Low temperature	No visible mechanical damage. Inductance change: Within ±10%	Temperature: -40±2 °C. Time : 1000 hours. Measurement at 24±4 hours after test conclusion.
Thermal shock	No visible mechanical damage. Inductance change: Within ±10%	The test sample shall be placed at (-55±3)°C and (125±3)°C for (30±3) , different temperature conversion time is 2~3 utes. The temperature cycle shall be repeated 32 cycles. Placed at room temperature for 2 hours, within 48±4 hours of testing.
Temperature characteristic	Inductance change Pc-b,Pc-d: Within ±10%	a: +20 °C (30~45) → b: -40 °C (30~45) → c: +20 °C (30~45) → d: +125 °C (30~45) → e: +20 °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 ±10%	Inductors shall be subjected to (95±3)%RH . at(60±2)°C for (1000±4) h. Placed at room temperature for 2 hours, within 48 hours of testing.
Life	No visible mechanical damage. Inductance change: Within ±10%	Inductors shall be store at (85±2)°C for (1000±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)



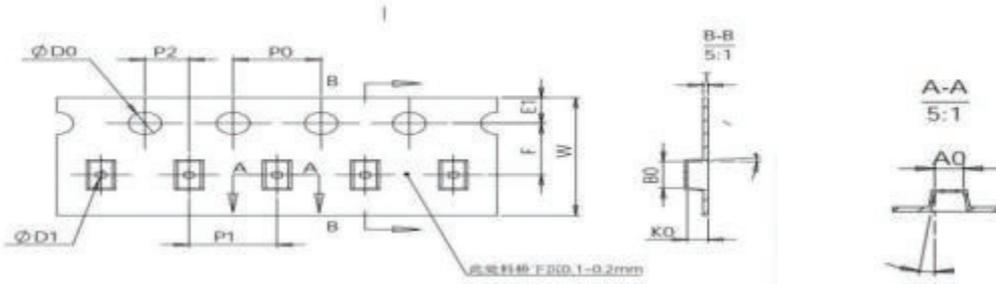
Profile Feature	Lead (Pb)-Free solder
Preheat:	
Temperature Min (T <sub>smin</sub> )	150°C
Temperature Max (T <sub>smax</sub> )	200°C
Time (T <sub>smin</sub> to T <sub>smax</sub> ) (ts)	60 - 120 seconds
Average ramp-up rate:	
(T <sub>smax</sub> to T <sub>p</sub> )	3°C / second max.
Time maintained above :	
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 (tp) <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)

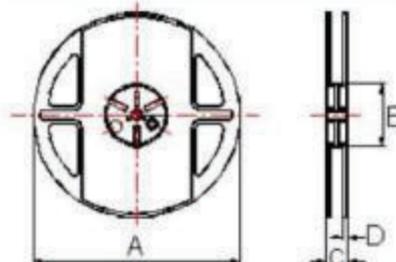


Series	W ±0.30	A0 ±0.05	B0 ±0.05	D +0.1/-0	D1 Min	E ±0.10	F ±0.10	K0 ±0.05	P0 ±0.10	P2 ±0.10	P ±0.10	T ±0.05	Qty/Reel I
100765	8.00	0.90	1.25	1.50	0.6	1.75	3.50	0.80	4.00	2.00	4.00	0.23	5K
121065	8.00	1.30	1.55	1.50	0.6	1.75	3.50	0.80	4.00	2.00	4.00	0.23	3K
160865	8.00	1.10	1.95	1.50	0.6	1.75	3.50	0.80	4.00	2.00	4.00	0.23	
160808	8.00	1.10	1.95	1.50	0.6	1.75	3.50	1.00	4.00	2.00	4.00	0.23	
141265	8.00	1.50	1.75	1.50	1.0	1.75	3.50	0.80	4.00	2.00	4.00	0.23	
141208	8.00	1.50	1.75	1.50	1.0	1.75	3.50	1.00	4.00	2.00	4.00	0.23	
201265	8.00	1.50	2.35	1.50	1.0	1.75	3.50	0.8	4.00	2.00	4.00	0.23	
201208	8.00	1.50	2.35	1.50	1.0	1.75	3.50	1.00	4.00	2.00	4.00	0.23	
201210	8.00	1.50	2.35	1.50	1.0	1.75	3.50	1.20	4.00	2.00	4.00	0.23	
201608	8.00	1.90	2.35	1.50	1.0	1.75	3.50	1.00	4.00	2.00	4.00	0.23	
201610	8.00	1.90	2.35	1.50	1.0	1.75	3.50	1.20	4.00	2.00	4.00	0.23	
201612	8.00	1.90	2.35	1.50	1.0	1.75	3.50	1.40	4.00	2.00	4.00	0.23	
252010	8.00	2.40	2.85	1.50	1.0	1.75	3.50	1.20	4.00	2.00	4.00	0.23	
252012	8.00	2.40	2.85	1.50	1.0	1.75	3.50	1.40	4.00	2.00	4.00	0.23	
322510	8.00	2.90	3.55	1.50	1.0	1.75	3.50	1.20	4.00	2.00	4.00	0.23	
322512	8.00	2.90	3.55	1.50	1.0	1.75	3.50	1.40	4.00	2.00	4.00	0.23	
322520	8.00	2.90	3.50	1.50	1.0	1.75	3.50	2.20	4.00	2.00	4.00	0.28	2K
303012	8.00	3.35	3.35	1.50	1.0	1.75	3.50	1.35	4.00	2.00	4.00	0.23	3K
303015	12.0	3.40	3.45	1.50	1.0	1.75	5.50	1.70	4.00	2.00	8.00	0.35	
303018	12.0	3.40	3.45	1.50	1.0	1.75	5.50	2.00	4.00	2.00	8.00	0.35	
303020	12.0	3.40	3.40	1.50	1.0	1.75	5.50	2.20	4.00	2.00	8.00	0.35	
404012	12.0	4.40	4.40	1.50	1.0	1.75	5.50	1.40	4.00	2.00	8.00	0.35	2K
404020	12	4.5±0.1	4.5±0.1	1.5	1.5	1.75	5.5	2.4±0.1	4.00	2.00	8.00	0.30	
404030	12.0	4.40	4.40	1.50	1.0	1.75	5.50	3.40	4.00	2.00	8.00	0.35	2K

10.2 Dimension of Reel: (Unit: mm)

Type	A ±2.0	B ±1.0	C ±0.5	D ±0.2
All	178	60	9.0	1.0

Type	A ±2.0	B ±1.0	C ±1.0	D ±0.3
All	330	100	13.5	2.0



## 11. Note

11.1 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:

a. Stored in high electrostatic environment

b. Stored in direct sunshine, rain, snow or condensation.

c. 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	newlyincreased: FTC303020D1R5MBCA FTC252010S6R8MBCA FTC252010S220MBCA FTC322510S2R2MBCA FTC201208SR47MBCD	1~23	Dec. 14.2022	Xi Rui.Niu	Dirk.Wang
A2	newlyincreased: FTC303018D4R7MBCA FTC322510S3R3MBCA FTC322510S4R7MBCA	1~23	Dec.29.2022	Xi Rui.Niu	Dirk.Wang
A3	newlyincreased: FTC141207SR24MBCA FTC141207SR47MBCA FTC201612SR47MBCA FTC303018DR22MBCA FTC322512SR10MBCA FTC322510SR68MBCA	1~24	Jan. 18.2023	Xi Rui.Niu	Dirk.Wang
A4	newlyincreased: FTC322512SR10MBCA FTC322510SR68MBCA	1~24	Feb. 10.2023	Xi Rui.Niu	Dirk.Wang
A5	newlyincreased: FTC252010SR47MBCD FTC322510S1R0MBCA FTC322512S6R8MBCA FTC322512S100MBCA	1~24	Feb.23.2023	Xi Rui.Niu	Dirk.Wang
A6	newlyincreased: FTC201208SR68MBCA FTC201612S2R2MBCA FTC252008S1R0MBCA FTC252008S2R2MBCA FTC252012SR68MBCD FTC322510SR33MBCA FTC322510SR47MBC FTC322510S1R5MBCA A FTC303018D1R5MBCA FTC322510S100MBCA Revise: FTC160808SR47MGCDM Rdc由48/55改為38/45	1~24	Mar.31.2023	Xi Rui.Niu	Dirk.Wang
A7	newlyincreased: FTC322510S6R8MBCA FTC303012D100MBCA FTC303020DR50MBCA FTC303020DR68MBCA FTC252075S2R2MGCA FTC201208S4R7MBCA	1~25	Apr.28.2023	Xi Rui.Niu	Dirk.Wang
A8	newlyincreased: FTC303015D220MBCA FTC303020D100MBCA FTC404012S1R0MBCA FTC404030S4R7MGCA FTC303020D3R3MBCA FTC252008S1R5MBCA FTC201608S100MBCA FTC201612SR15MBCA FTC201612S3R3MBCA FTC252008SR47MBCA FTC252008S3R3MBCA FTC201610S100MBCA FTC322520S1R0MBCA FTC141208SR24MBCD FTC201612SR68MBCA FTC201612S1R0MBCA FTC252012SR82MBCA	1~27	May.31.2023	Xi Rui.Niu	Dirk.Wang
A9	newlyincreased: FTC201210S6R8MBCA FTC201208S3R3MBCA FTC201210S100MBCA FTC303020D4R7MBCA FTC303020D6R8MBCA FTC322520SR47MBCA FTC322220SR68MBCA FTC404020S2R2MGCA FTC404010S100MBCA	1~30	Jun.30.2023	Xi Rui.Niu	Congdian.Lu

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