

SPECIFICATION FOR APPROVAL

Customer : _____

Customer P/N: _____

Drawing No : _____

Quantity : X Pcs. Date : 2023/7/31

Chilisin P/N : AMRM00101040seriesA1

Automotive Grade Inductor

Halogen Free
RoHS Compliant
REACH Compliant
Lead Free Solders
AEC-Q200

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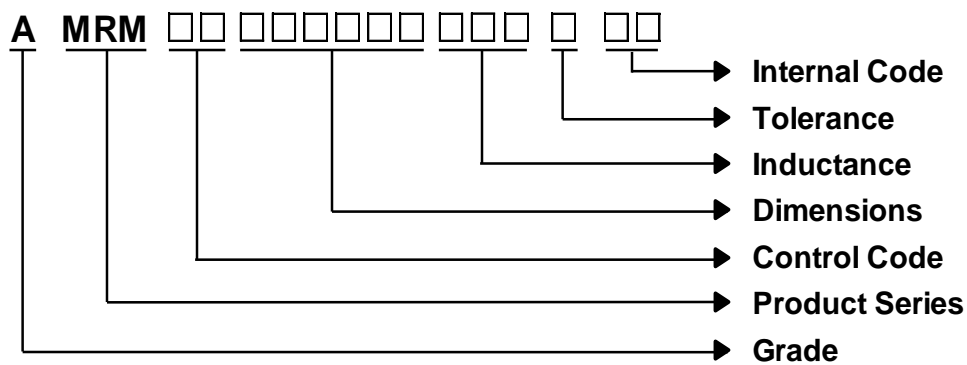
APPROVED BY
鍾尚樺 **Mark Chung**

AMRM00101040 Series Specification

AEC-Q200

1 Scope: This specification applies to Large current and Low Loss SMD Power INDUCTOR

2 Part Numbering:

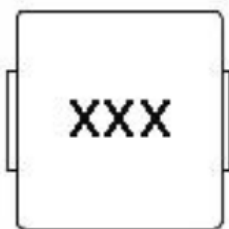


3 Rating:

Operating Temperature: - 40°C ~ 125°C

Storage Temperature: (on tape & reel): -20°C to +40°C; 75% RH max.

4 Marking:



Marking : XXX

Marking color : Black

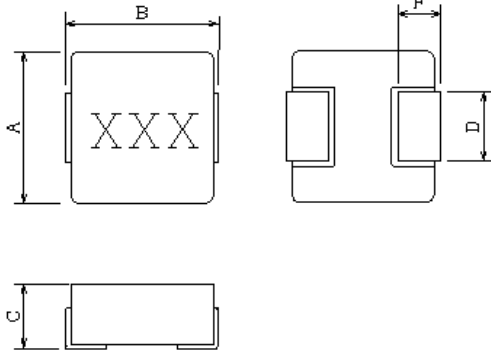
5 Standard Testing Condition

	Unless otherwise specified	In case of doubt
Temperature	Ordinary Temperature(15 to 35°C)	20 to 30°C
Humidity	Ordinary Humidity(25 to 85% RH)	50 to 80 %RH

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6 Configuration and Dimensions:



Dimensions in mm

TYPE	101040
A	10.2 ± 0.3
B	11.6 Max
C	3.8 ± 0.2
D	3.0 ± 0.5
F	2.5 ± 0.5

7 Electrical Characteristics:

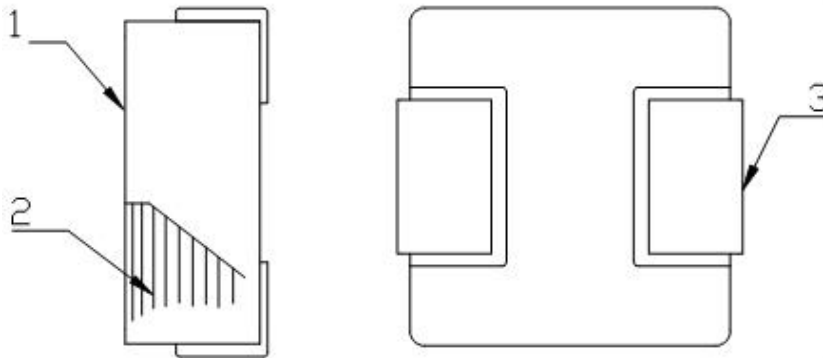
Part No.	Inductance (uH)	Tolerance (±%)	Test Freq.	I _{rms} (A) Typ	I _{sat} (A) Typ	RDC(mΩ) Max(Typ)	Marking
AMRM001010401R0MA1	1	100KHz,0.5V	20	18.0	20.0	3.3(3.0)	1R0
AMRM001010402R2MA1	2.2	100KHz,0.5V	20	14	16	6.8(6.0)	2R2
AMRM001010403R3MA1	3.3	100KHz,0.5V	20	11	13	11(10)	3R3
AMRM001010404R7MA1	4.7	100KHz,0.5V	20	9	11	16(14.5)	47R
AMRM001010406R8MA1	6.8	100KHz,0.5V	20	8	9	24(20)	6R8
AMRM00101040100MA1	10	100KHz,0.5V	20	6.5	7	30(27)	100
AMRM00101040150MA1	15	100KHz,0.5V	20	6	6.25	45(40)	150
AMRM00101040220MA1	22	100KHz,0.5V	20	4.5	5	66(60)	220
AMRM00101040330MA1	33	100KHz,0.5V	20	3.5	4	100(90)	330
AMRM00101040470MA1	47	100KHz,0.5V	20	3	3.5	165(150)	470

Note:

1. Operating temperature range - 40°C ~ 125°C
2. I_{sat} for Inductance drop 30% from its value without current.
3. I_{rms} for a 40°C temperature rise from 25°C ambient.
4. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions.
Circuit design 125°C under worst case operating conditions. Component placement, PWB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
5. Absolute maximum voltage 30VDC (Based on test method, it may not be the same under different application, it is recommended to verify first.)

8 AMRM00101040 Series

8.1 Construction:



8.2 Material List:

ITEM	PART	DESCRIPTION
1	CORE	Magnetic Metal Powder
2	WIRE	Copper wire
3	TERMINAL	TERMINAL COPPER

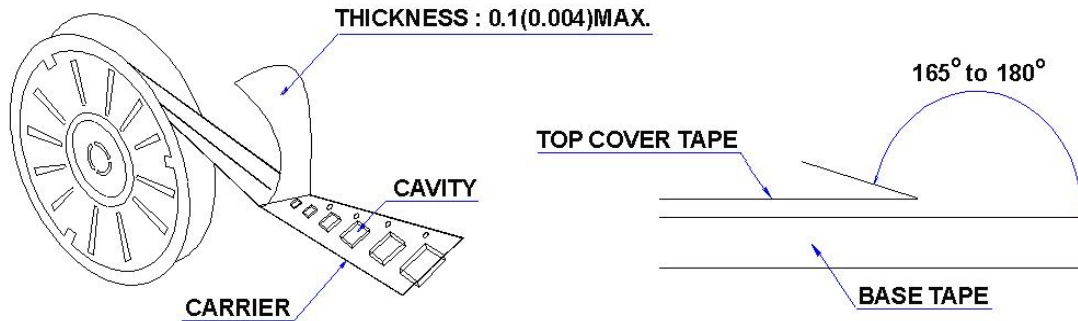
AMRM00101040 Series Specification

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9 PACKAGING

9.1 Packaging -Cover tape

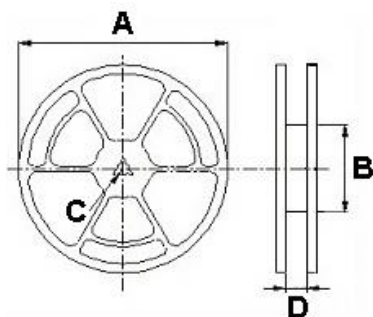
The force for tearing off cover tape is 10 to 130 grams in the arrow direction.



9.2 Packaging Quantity

TYPE	PCS/REEL
101040	500

9.3 Reel Dimensions



Dimensions in mm

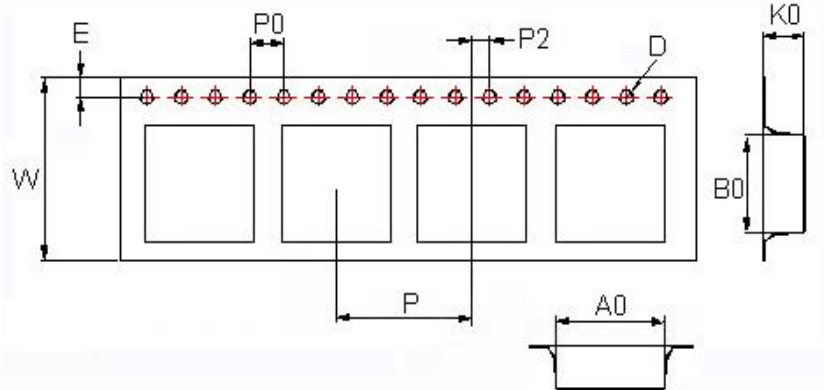
TYPE	A	B	C	D
101040	330	100	13	24.4

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9 PACKAGING

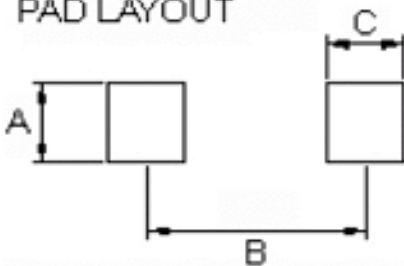
9.4 Tape Dimensions in mm



TYPE	A0	B0	K0	D	E	W	P	P0	P2
101040	10.6	11.7	4.25	1.55	1.75	24	16	4	2

10 Recommended Pattern

PAD LAYOUT



Dimensions in mm

TYPE	A(mm)	B(mm)	C(mm)
101040	4.0	9.5	3.5

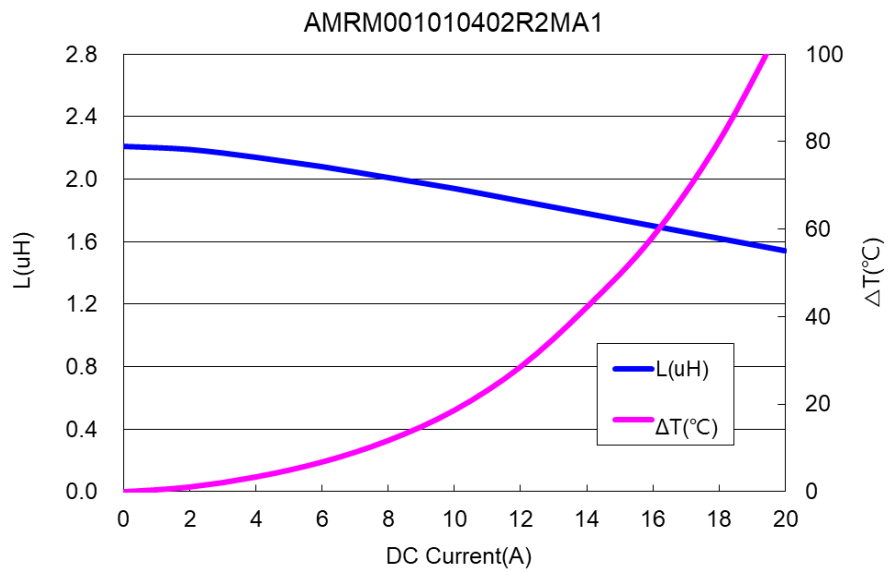
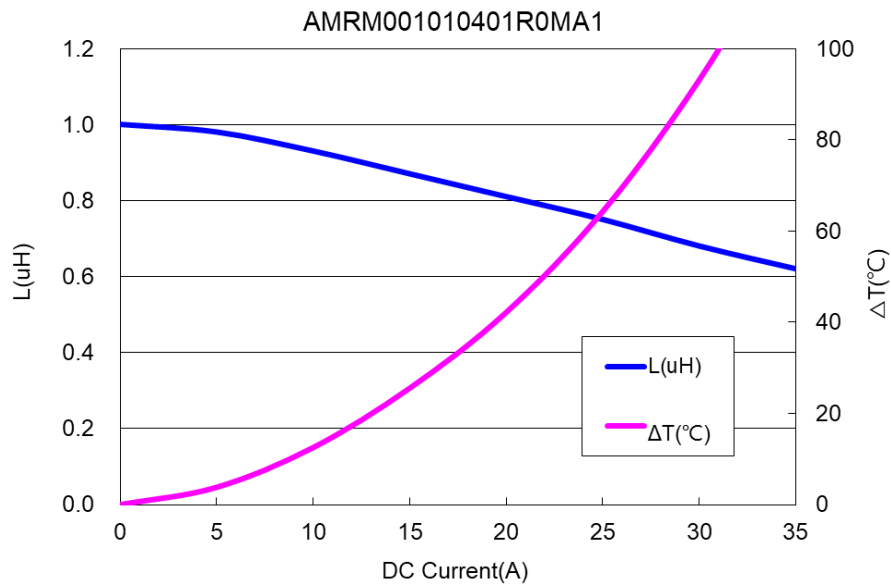
11 Note:

1. Please make sure that your product has been evaluated and confirmed against your specifications when our product is mounted to your product.
2. Do not knock nor drop.
3. All the items and parameters in this product specification have been prescribed on the premise that our product is used for the purpose, under the condition and in the environment agreed upon between you and us. You are requested not to use our product deviating from such agreement.
4. Please keep the distance between transformer/coil and other components (refer to the standard IEC 950)
5. The moisture sensitivity level (MSL) of products is classified as level 1.

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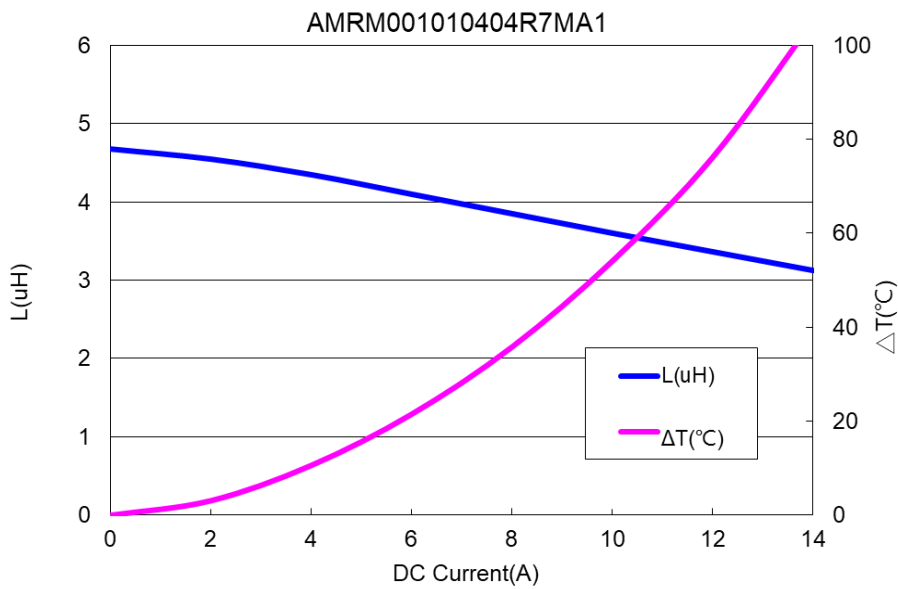
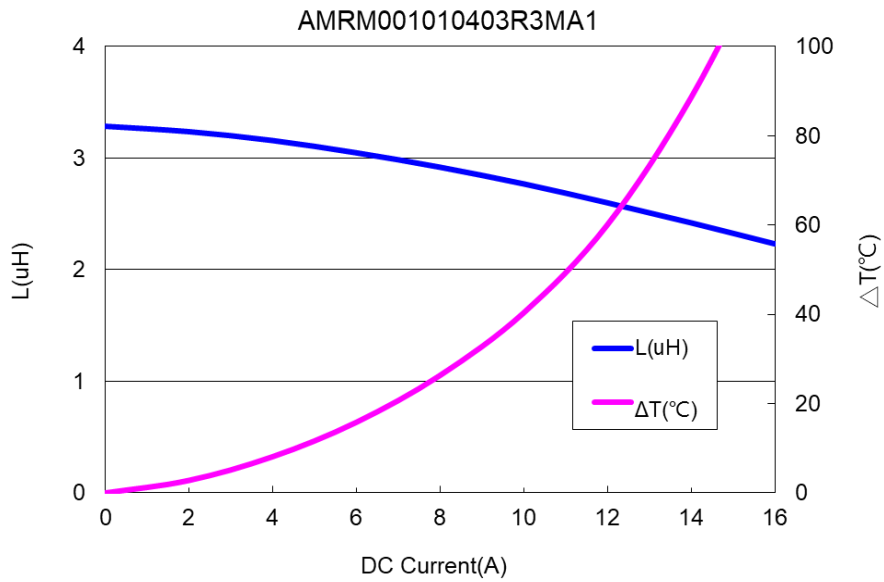
12 Graph:



AMRM00101040 Series Specification

AEC-Q200

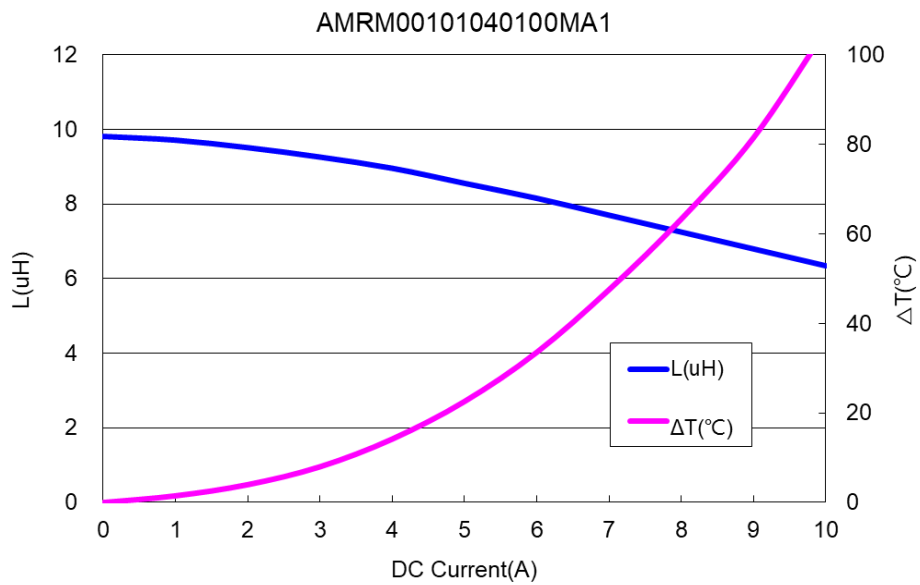
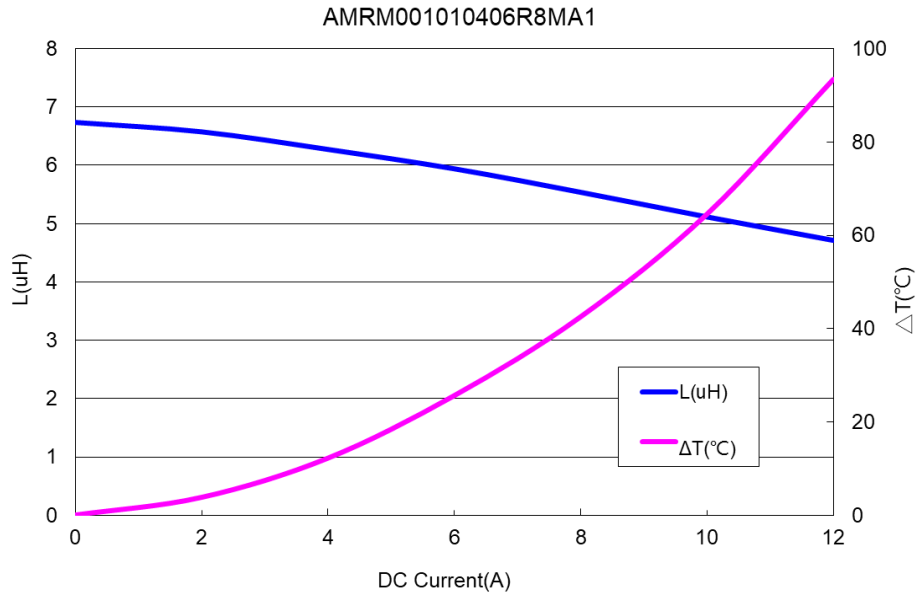
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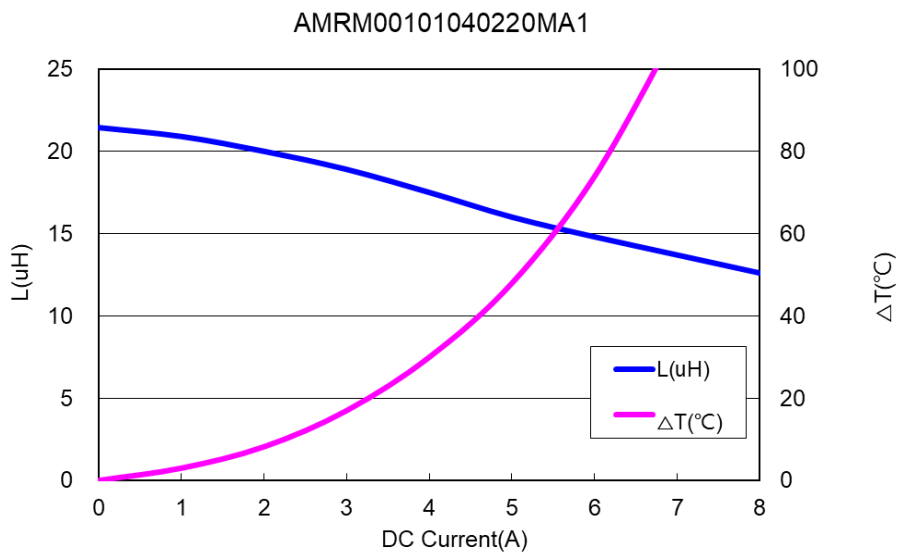
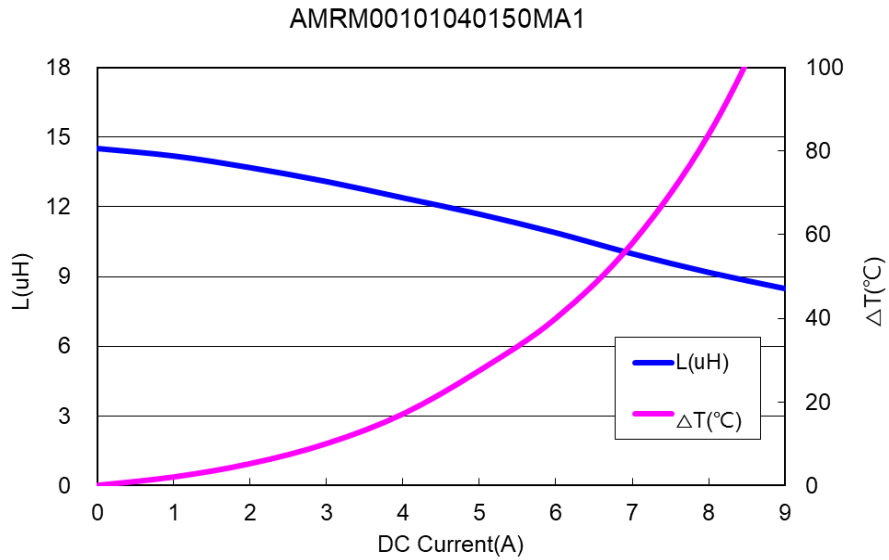
AMRM00101040 Series Specification

AEC-Q200

12 Graph:



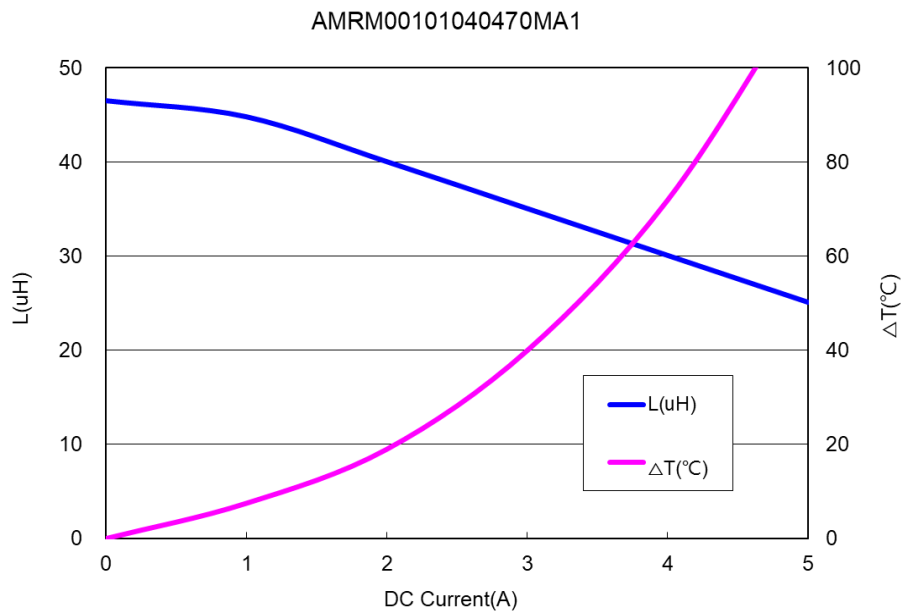
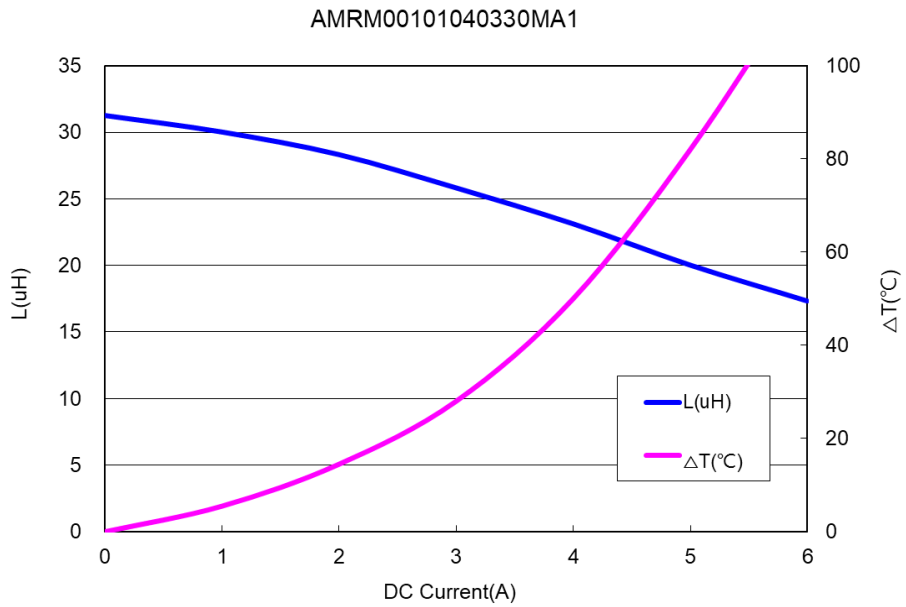
12 Graph:



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12 Graph:



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