

Power Inductor AMMA Series

**Automotive
AEC-Q200**

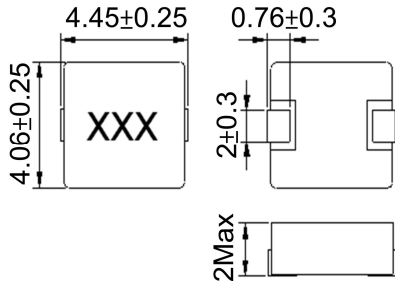
RoHS Compliant
Halogen Free
REACH Compliant



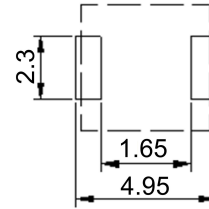
Power Circuit Shield Wire Wound Metal Ultra High Current

Part Numbering

A	MMA	00	040420	1R0	M	V1
Grade	Series Name	Control Code	Dimensions Code (mm)	Inductance (uH)	Tolerance	Internal Code
			040420 4.45x4.06x2	R22 0.22	M ±20%	
			050530 5.49x5.18x3	1R0 1.0		
			060630 6.86x6.47x3	3R3 3.3		
			101040 10.5x10x4			
			131364 13.2x12.9x6.4			

AMMA00040420 Type
■ Dimensions


unit:mm

■ Recommended Land Pattern


unit:mm

■ Electrical Characteristics

Part No.	Inductance (uH)	Test Freq.	RDC(mΩ) Max(Typ)	Isat (A)Typ.	Irms (A)Typ.	Tolerance (±%)	Marking
AMMA00040420R10MV1	0.10	100kHz/0.25V	5(4.5)	35	11	20	R10
AMMA00040420R22MV1	0.22	100kHz/0.25V	8(7.3)	24	13	20	R22
AMMA00040420R33MV1	0.33	100kHz/0.25V	13(9.6)	18	9	20	R33
AMMA00040420R47MV1	0.47	100kHz/0.25V	18(16)	11.5	5.6	20	R47
AMMA000404201R0MV1	1.0	100kHz/0.25V	37(33)	8.5	3.75	20	1R0
AMMA000404201R2MV1	1.2	100kHz/0.25V	48(41)	7	3.1	20	1R2
AMMA000404202R2MV1	2.2	100kHz/0.25V	90(80)	6	2.85	20	2R2

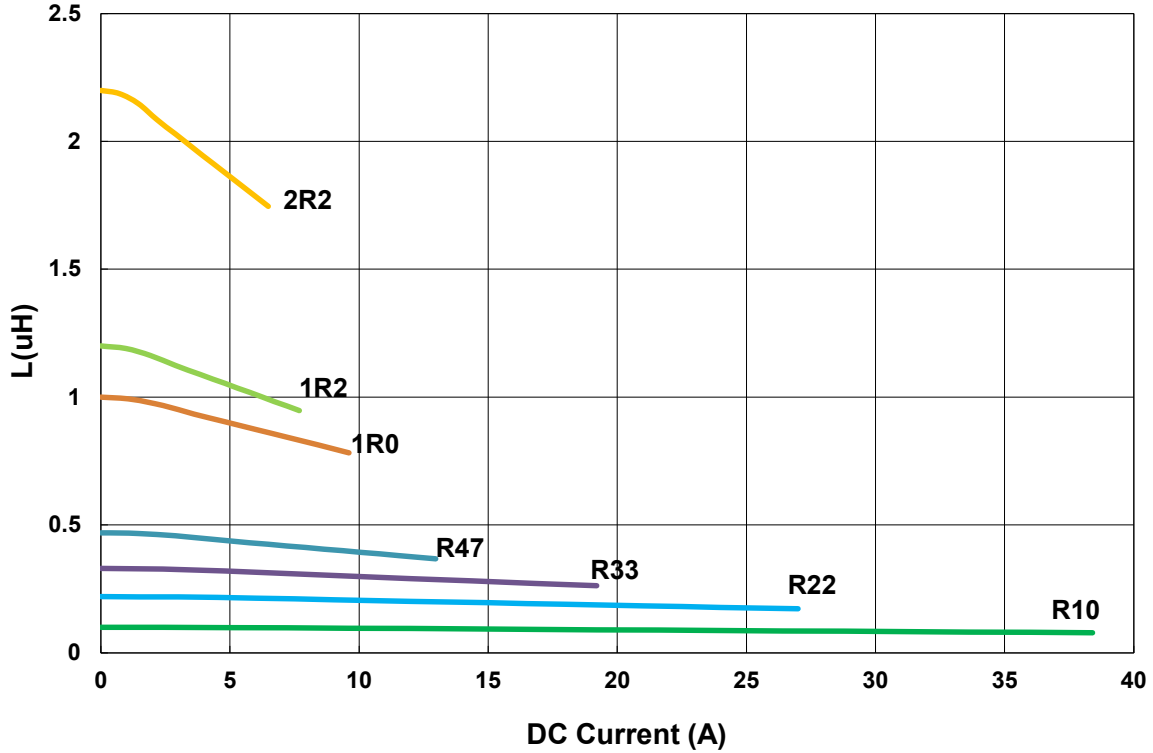
Note: When ordering, please specify tolerance code. Tolerance: M=±20%

1. Operating temperature range $-55^{\circ}\text{C} \sim 125^{\circ}\text{C}$
2. Isat for Inductance drop 20% from its value without current
3. I rms for a 40°C temprature rise from 25°C ambient with current
4. Withstand voltage : 25VDC
5. Measure Equipment:
 - L: Keysight 4285A or equivalent.
 - RDC: ADEX AX1152D or equivalent.
 - Isat: Keysight 4285A or equivalent.
 - I rms: CHROMA 62050P-100-100

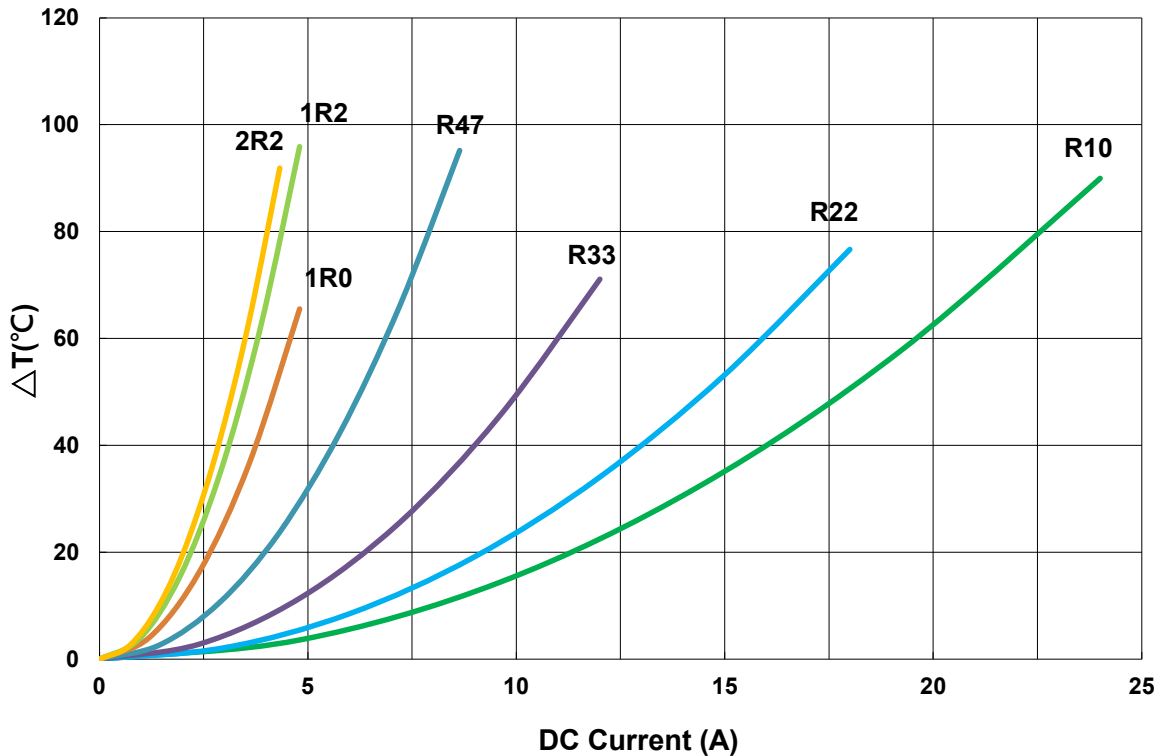
AMMA00040420 Type

Characteristics Graph

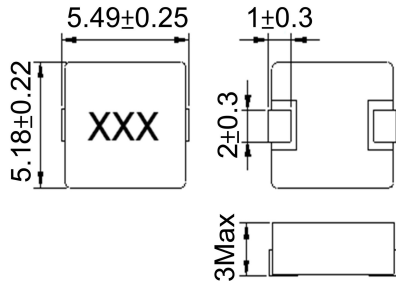
Inductance vs. DC Current



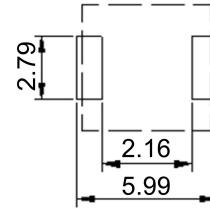
Temperature Change vs. DC Current



Please be sure to request approval specifications that provide further details of the products. Kindly note that the content of these specifications are subject to change or may be discontinued without prior notice. This product may not be designed/used in medical or high risk applications without Chilisin approval. Please contact our sales department before ordering.

AMMA00050530 Type
■ Dimensions


unit:mm

■ Recommended Land Pattern


unit:mm

■ Electrical Characteristics

Part No.	Inductance (uH)	Test Freq.	RDC(mΩ) Max(Typ)	Isat (A)Typ.	Irms (A)Typ.	Tolerance (±%)	Marking
AMMA00050530R33MV1	0.33	100kHz/0.25V	5.56(5.3)	19	13.7	20	R33
AMMA00050530R47MV1	0.47	100kHz/0.25V	7.04(6.7)	16	12.2	20	R47
AMMA00050530R68MV1	0.68	100kHz/0.25V	8.96(8.53)	13.5	10.2	20	R68
AMMA000505301R0MV1	1.0	100kHz/0.25V	13.7(13.1)	12	9.2	20	1R0
AMMA000505301R5MV1	1.5	100kHz/0.25V	20.7(19.7)	11	7.2	20	1R5
AMMA000505302R2MV1	2.2	100kHz/0.25V	29.2(27.8)	10	5.8	20	2R2
AMMA000505303R3MV1	3.3	100kHz/0.25V	54.7(52.1)	8.5	5	20	3R3
AMMA000505304R7MV1	4.7	100kHz/0.25V	77.5(73.8)	8.2	3.5	20	4R7
AMMA00050530100MV1	10	100kHz/0.25V	158(152)	4	2.5	20	100
AMMA00050530150MV1	15	100kHz/0.25V	265(252)	2.5	1.9	20	150

Note: When ordering, please specify tolerance code. Tolerance: M=±20%

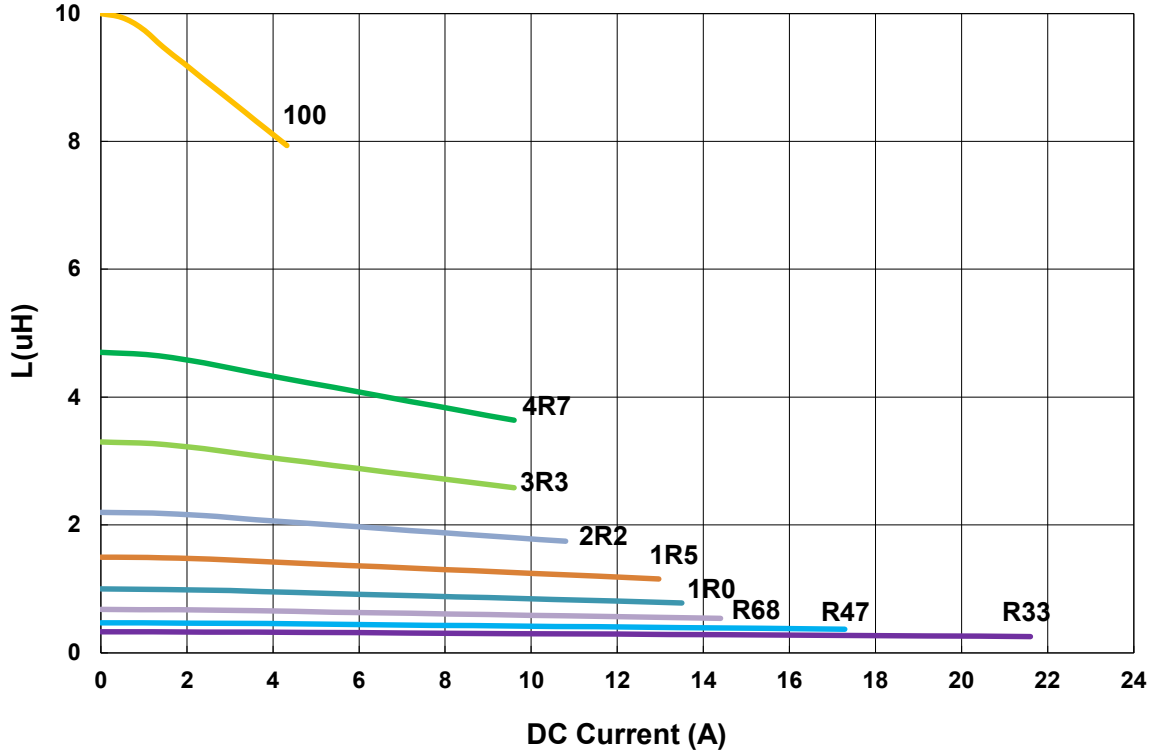
1. Operating temperature range $-55^{\circ}\text{C} \sim 125^{\circ}\text{C}$
2. Isat for Inductance drop 20% from its value without current
3. I rms for a 40°C temprature rise from 25°C ambient with current
4. Withstand voltage : 25VDC
5. Measure Equipment:

L: Keysight 4285A or equivalent.
 RDC: ADEX AX1152D or equivalent.
 Isat: Keysight 4285A or equivalent.
 I rms: CHROMA 62050P-100-100

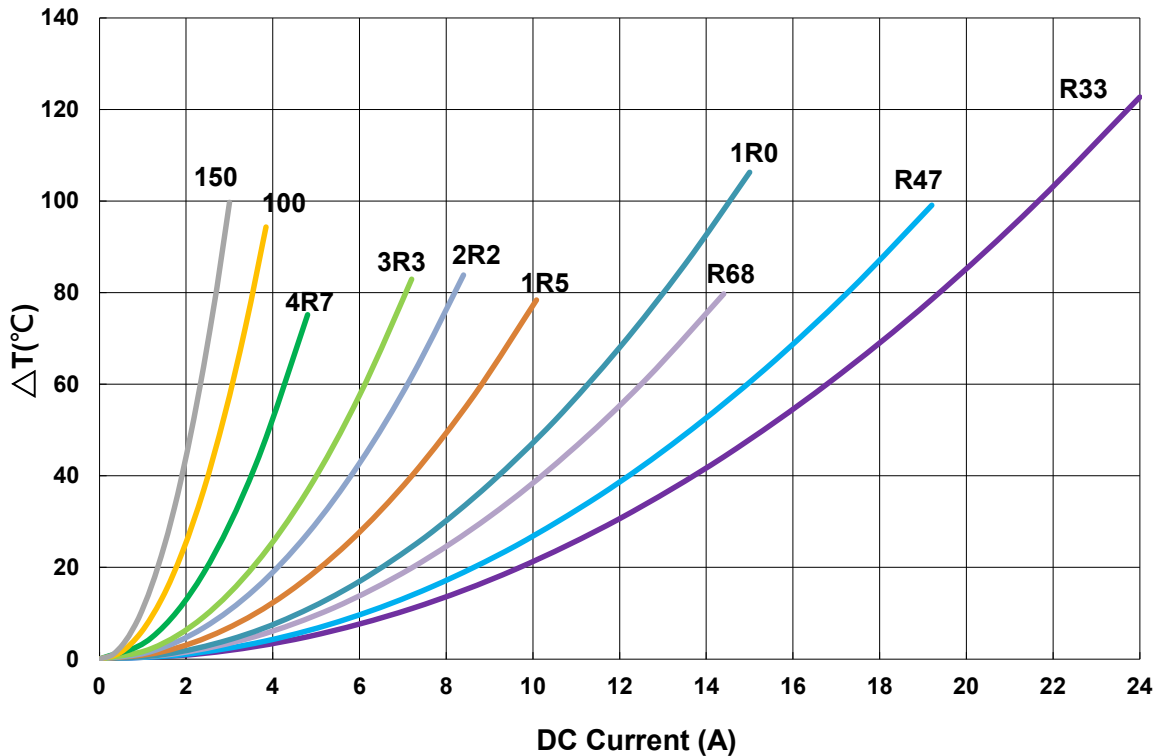
AMMA00050530 Type

Characteristics Graph

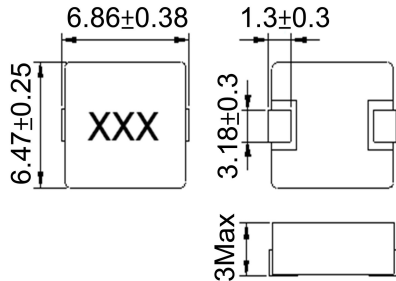
Inductance vs. DC Current



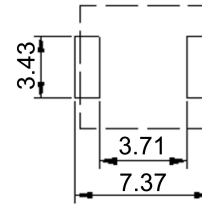
Temperature Change vs. DC Current



Please be sure to request approval specifications that provide further details of the products. Kindly note that the content of these specifications are subject to change or may be discontinued without prior notice. This product may not be designed/used in medical or high risk applications without Chilisin approval. Please contact our sales department before ordering.

AMMA00060630 Type
■ Dimensions


unit:mm

■ Recommended Land Pattern


unit:mm

■ Electrical Characteristics

Part No.	Inductance (uH)	Test Freq.	RDC(mΩ) Max(Typ)	Isat (A)Typ.	Irms (A)Typ.	Tolerance (±%)	Marking
AMMA00060630R10MV1	0.10	100kHz/0.25V	1.7(1.5)	60	32.5	20	R10
AMMA00060630R15MV1	0.15	100kHz/0.25V	2.5(1.9)	52	26	20	R15
AMMA00060630R20MV1	0.20	100kHz/0.25V	3(2.4)	41	24	20	R20
AMMA00060630R22MV1	0.22	100kHz/0.25V	2.8(2.5)	40	23	20	R22
AMMA00060630R33MV1	0.33	100kHz/0.25V	3.9(3.5)	30	20	20	R33
AMMA00060630R47MV1	0.47	100kHz/0.25V	4.2(4)	26	17.5	20	R47
AMMA00060630R68MV1	0.68	100kHz/0.25V	5.5(5)	25	15.5	20	R68
AMMA00060630R82MV1	0.82	100kHz/0.25V	8(6.7)	24	13	20	R82
AMMA00060630R10MV1	1.0	100kHz/0.25V	10(9)	22	11	20	1R0
AMMA00060630R15MV1	1.5	100kHz/0.25V	15(14)	18	9	20	1R5
AMMA00060630R22MV1	2.2	100kHz/0.25V	20(18)	14	8	20	2R2
AMMA00060630R33MV1	3.3	100kHz/0.25V	30(28)	13.5	6	20	3R3
AMMA00060630R47MV1	4.7	100kHz/0.25V	40(37)	10	5.5	20	4R7
AMMA00060630R68MV1	6.8	100kHz/0.25V	60(54)	8	4.5	20	6R8
AMMA00060630R82MV1	8.2	100kHz/0.25V	68(64)	7.5	4	20	8R2
AMMA00060630R100MV1	10	100kHz/0.25V	105(102)	7	3	20	100

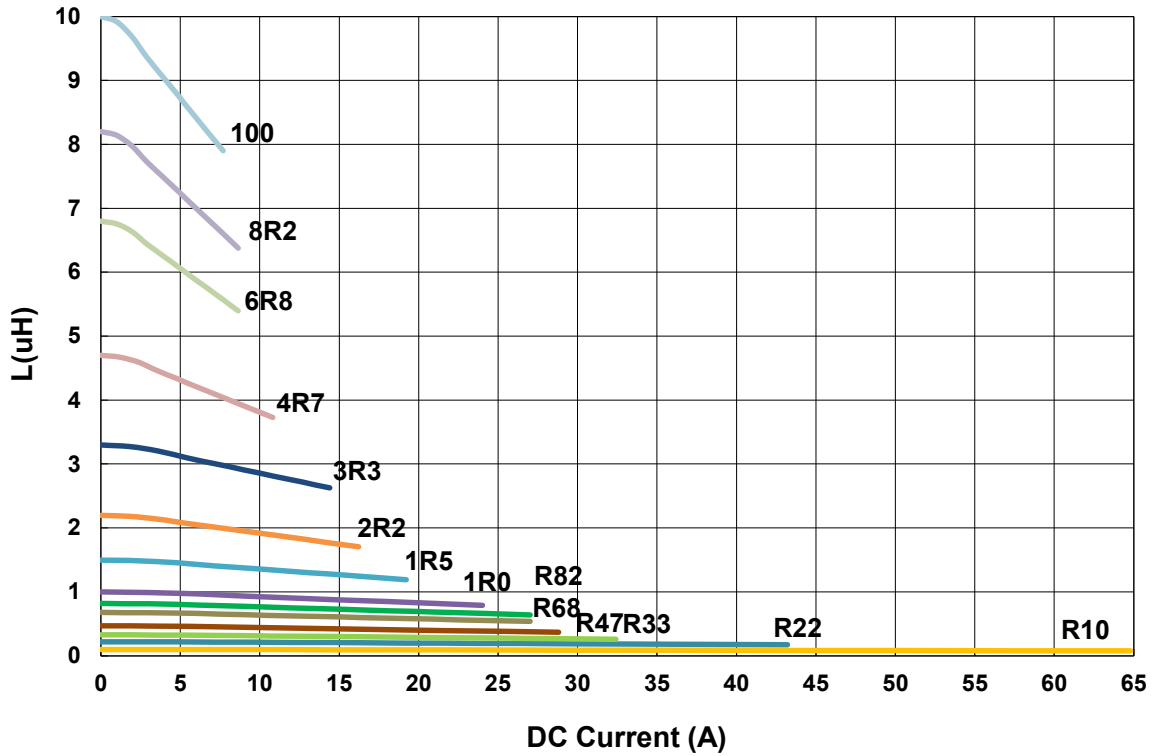
Note: When ordering, please specify tolerance code. Tolerance: M=±20%

1. Operating temperature range $-55^{\circ}\text{C} \sim 125^{\circ}\text{C}$
2. Isat for Inductance drop 20% from its value without current
3. I rms for a 40°C temprature rise from 25°C ambient with current
4. Withstand voltage : 25VDC
5. Measure Equipment:
 - L: Keysight 4285A or equivalent.
 - RDC: ADEX AX1152D or equivalent.
 - Isat: Keysight 4285A or equivalent.
 - I rms: CHROMA 62050P-100-100

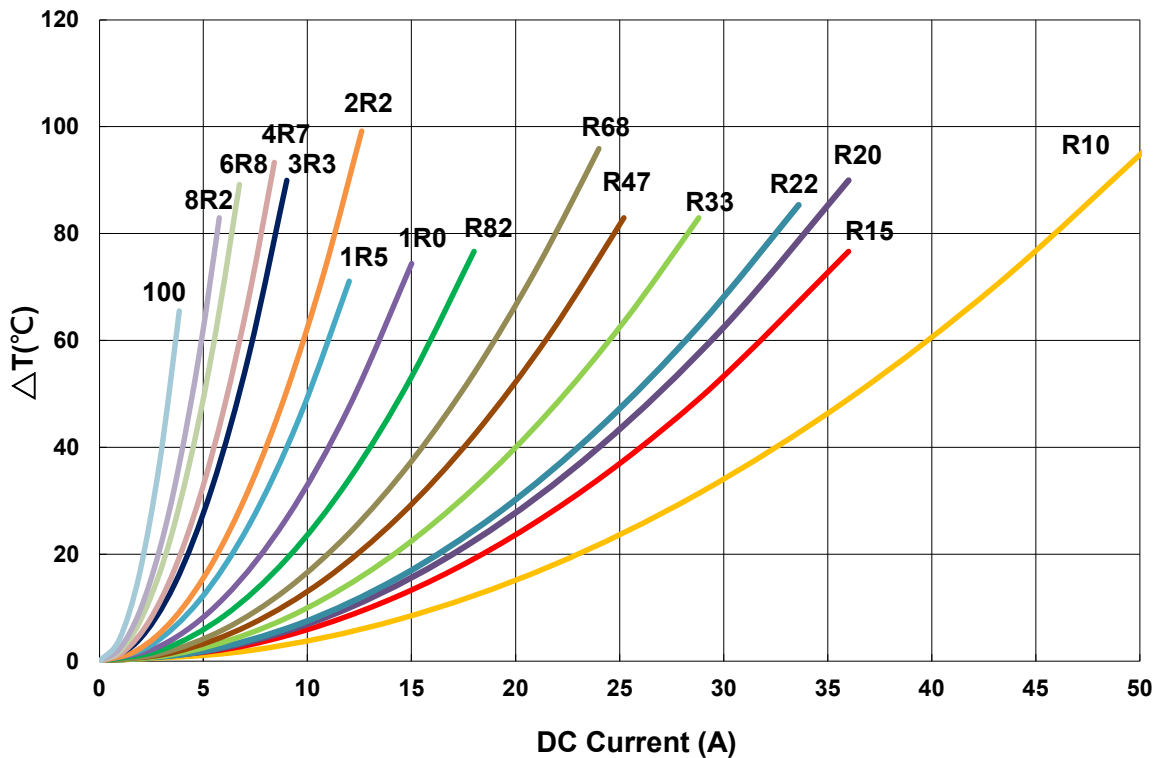
AMMA00060630 Type

Characteristics Graph

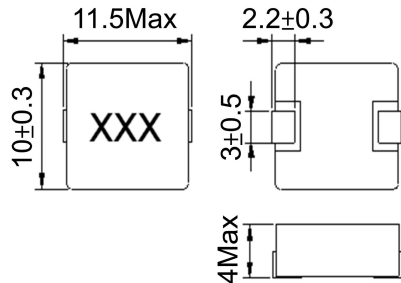
Inductance vs. DC Current



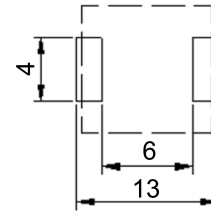
Temperature Change vs. DC Current



Please be sure to request approval specifications that provide further details of the products. Kindly note that the content of these specifications are subject to change or may be discontinued without prior notice. This product may not be designed/used in medical or high risk applications without Chilisin approval. Please contact our sales department before ordering.

AMMA00101040 Type
■ Dimensions


unit:mm

■ Recommended Land Pattern


unit:mm

■ Electrical Characteristics

Part No.	Inductance (uH)	Test Freq.	RDC(mΩ) Max(Typ)	Isat (A)Typ.	Irms (A)Typ.	Tolerance (±%)	Marking
AMMA00101040R19MV1	0.19	100kHz/0.25V	0.95(0.87)	90	40	20	R19
AMMA00101040R36MV1	0.36	100kHz/0.25V	1.4(1.3)	60	31.5	20	R36
AMMA00101040R56MV1	0.56	100kHz/0.25V	1.8(1.7)	49	27.5	20	R56
AMMA001010401R0MV1	1.0	100kHz/0.25V	4.1(3.7)	36	17.5	20	1R0
AMMA001010401R5MV1	1.5	100kHz/0.25V	5.8(5.3)	27.5	15	20	1R5
AMMA001010402R2MV1	2.2	100kHz/0.25V	9(8.2)	25.6	12	20	2R2
AMMA001010403R3MV1	3.3	100kHz/0.25V	11.8(10.8)	18.6	10	20	3R3
AMMA001010404R7MV1	4.7	100kHz/0.25V	16.5(15)	17	9.5	20	4R7
AMMA001010405R6MV1	5.6	100kHz/0.25V	19.3(17.6)	16	8.5	20	5R6
AMMA001010406R8MV1	6.8	100kHz/0.25V	23.3(21.2)	13.5	8	20	6R8
AMMA00101040100MV1	10	100kHz/0.25V	36.5(33.2)	12	6.8	20	100

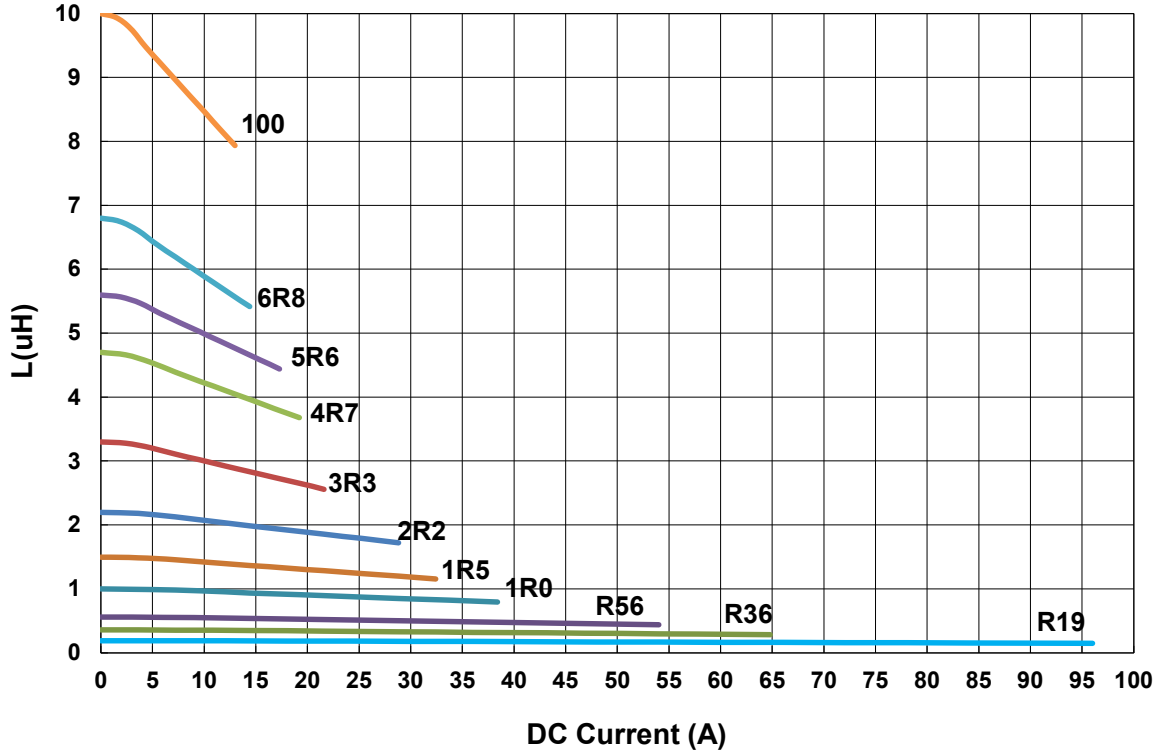
Note: When ordering, please specify tolerance code. Tolerance: M=±20%

- Operating temperature range $-55^{\circ}\text{C} \sim 125^{\circ}\text{C}$
- Isat for Inductance drop 20% from its value without current
- Irms for a 40°C temperature rise from 25°C ambient with current
- Withstand voltage : 25VDC
- Measure Equipment:
 L: Keysight 4285A or equivalent.
 RDC: ADEX AX1152D or equivalent.
 Isat: Keysight 4285A or equivalent.
 Irms: CHROMA 62050P-100-100

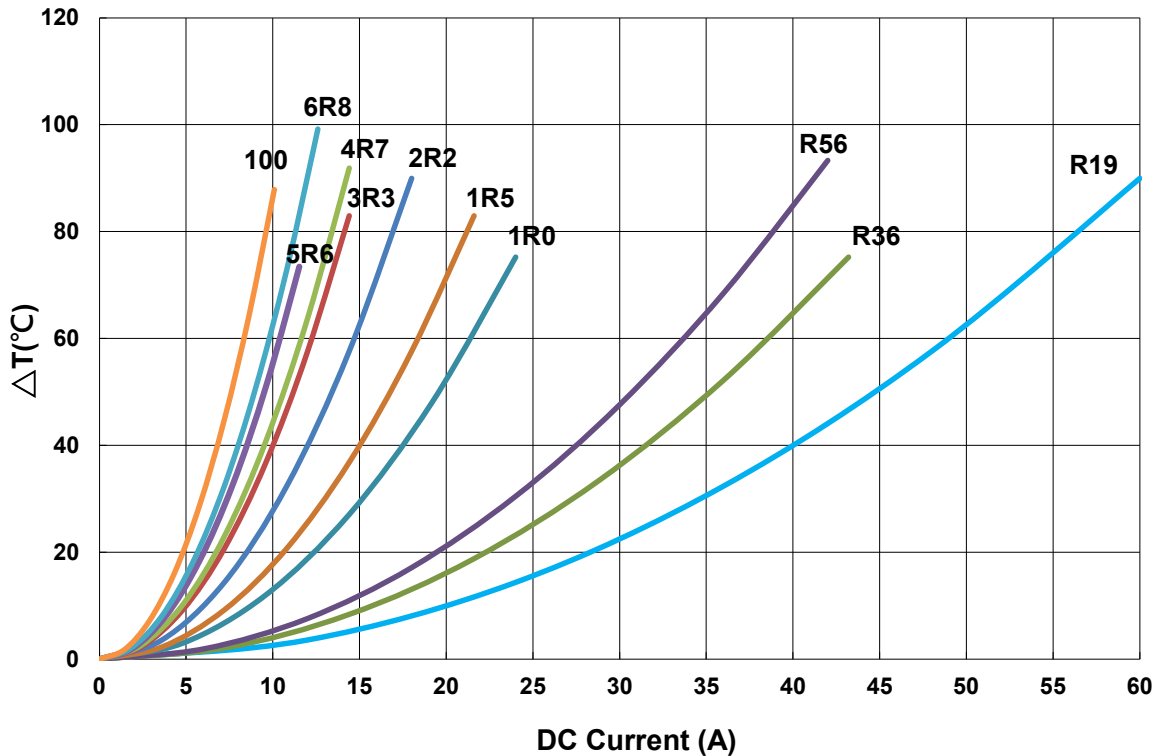
AMMA00101040 Type

Characteristics Graph

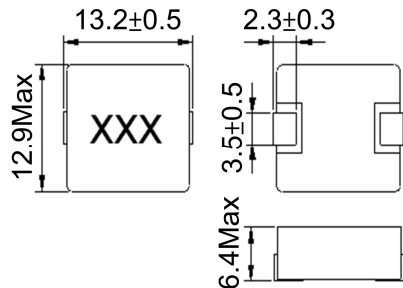
Inductance vs. DC Current



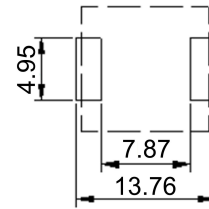
Temperature Change vs. DC Current



Please be sure to request approval specifications that provide further details of the products. Kindly note that the content of these specifications are subject to change or may be discontinued without prior notice. This product may not be designed/used in medical or high risk applications without Chilisin approval. Please contact our sales department before ordering.

AMMA00131364 Type
■ Dimensions


unit:mm

■ Recommended Land Pattern


unit:mm

■ Electrical Characteristics

Part No.	Inductance (uH)	Test Freq.	RDC(mΩ) Max(Typ)	Isat (A)Typ.	Irms (A)Typ.	Tolerance (±%)	Marking
AMMA00131364R15MV1	0.15	100kHz/0.25V	0.6(0.53)	118	55	20	R15
AMMA00131364R22MV1	0.22	100kHz/0.25V	0.7(0.63)	112	53	20	R22
AMMA00131364R33MV1	0.33	100kHz/0.25V	0.9(0.83)	65	46	20	R33
AMMA00131364R47MV1	0.47	100kHz/0.25V	1.2(1.0)	63	41	20	R47
AMMA00131364R56MV1	0.56	100kHz/0.25V	1.4(1.2)	62	37	20	R56
AMMA00131364R68MV1	0.68	100kHz/0.25V	1.6(1.4)	60	35	20	R68
AMMA00131364R82MV1	0.82	100kHz/0.25V	1.9(1.6)	50	33	20	R82
AMMA001313641R0MV1	1.0	100kHz/0.25V	2.0(1.7)	49	32	20	1R0
AMMA001313641R5MV1	1.5	100kHz/0.25V	3.0(2.5)	45	27	20	1R5
AMMA001313641R8MV1	1.8	100kHz/0.25V	3.2(2.8)	41	24	20	1R8
AMMA001313642R2MV1	2.2	100kHz/0.25V	4.2(3.5)	40	22	20	2R2
AMMA001313643R3MV1	3.3	100kHz/0.25V	6.8(5.7)	35	18	20	3R3
AMMA001313644R7MV1	4.7	100kHz/0.25V	11.2(9.3)	30	13.5	20	4R7
AMMA001313646R8MV1	6.8	100kHz/0.25V	14(13.1)	16.5	11.5	20	6R8
AMMA001313648R2MV1	8.2	100kHz/0.25V	15.5(14.5)	16	10.5	20	8R2
AMMA00131364100MV1	10	100kHz/0.25V	17.2(16.4)	15.5	10	20	100

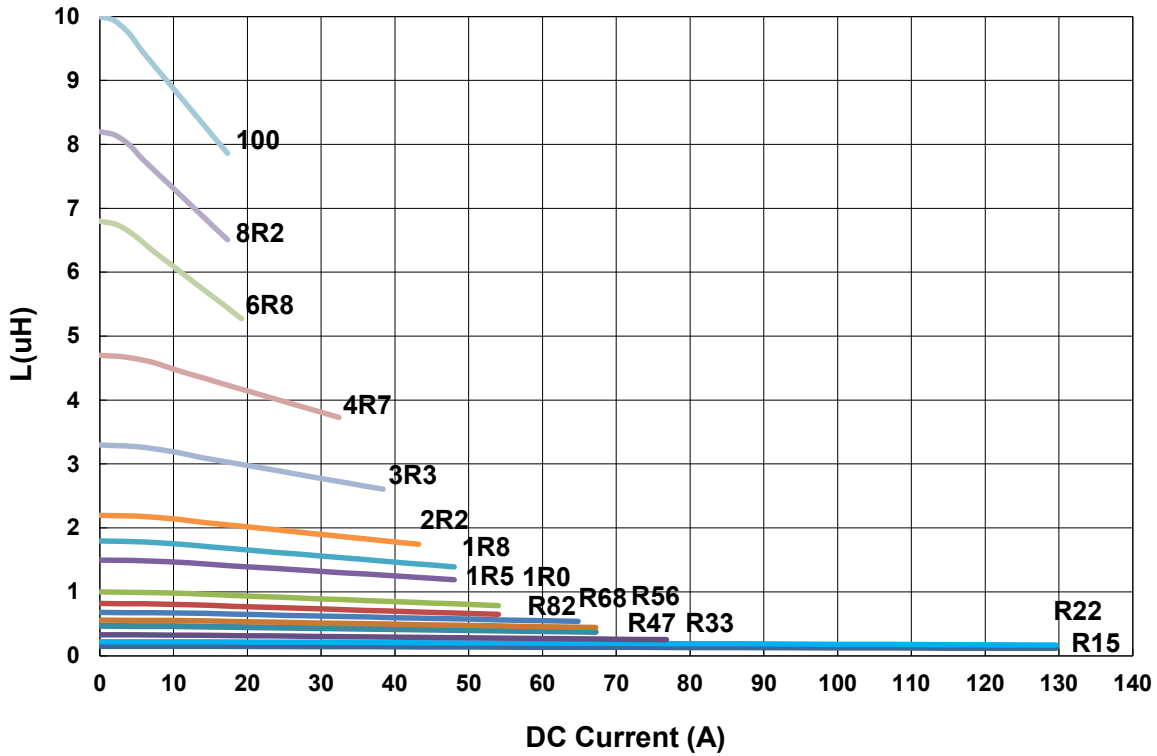
Note: When ordering, please specify tolerance code. Tolerance: M=±20%

1. Operating temperature range $-55^{\circ}\text{C} \sim 125^{\circ}\text{C}$
2. Isat for Inductance drop 20% from its value without current
3. I rms for a 40°C temprature rise from 25°C ambient with current
4. Withstand voltage : 25VDC
5. Measure Equipment:
 - L: Keysight 4285A or equivalent.
 - RDC: ADEX AX1152D or equivalent.
 - Isat: Keysight 4285A or equivalent.
 - I rms: CHROMA 62050P-100-100

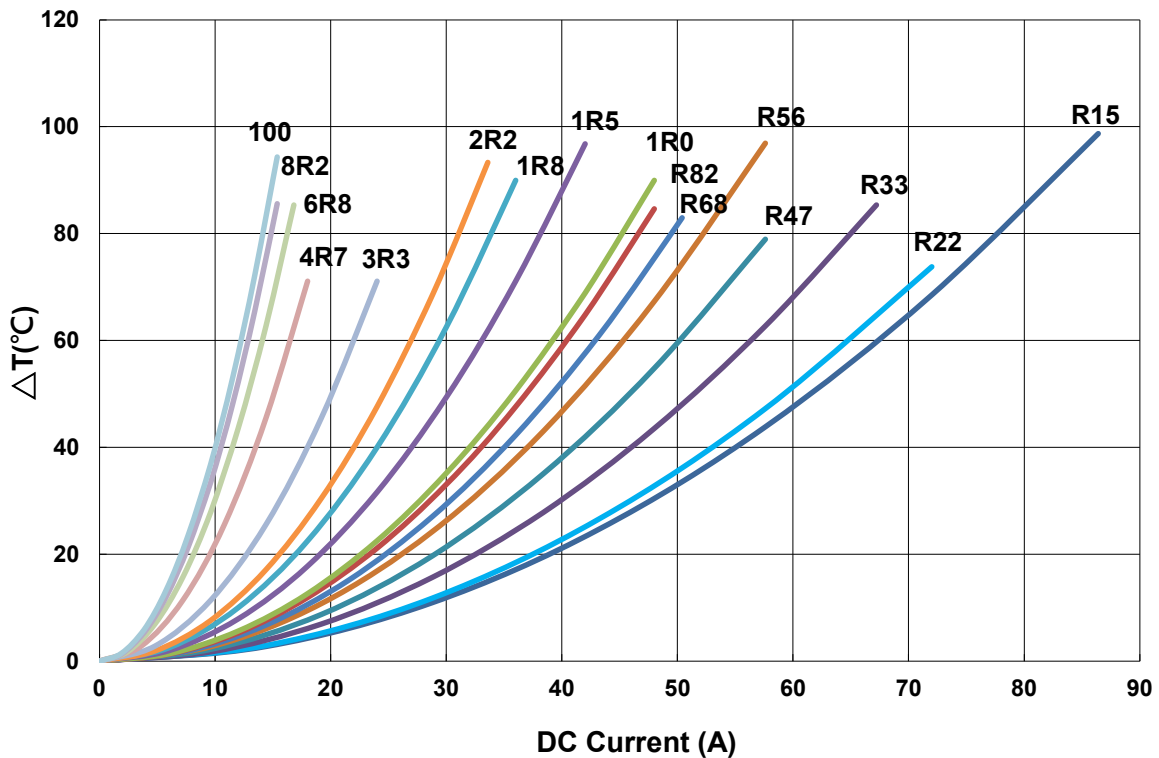
AMMA00131364 Type

Characteristics Graph

Inductance vs. DC Current



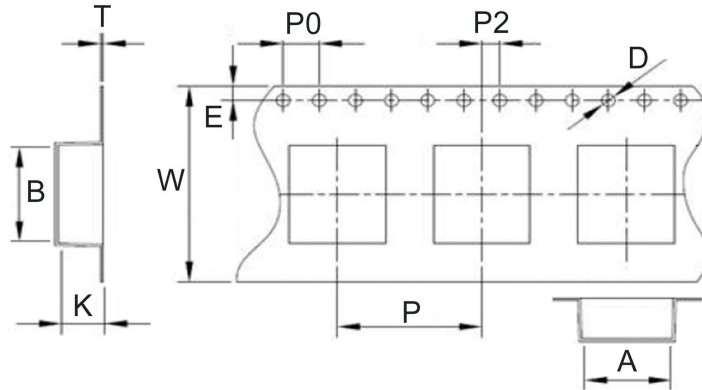
Temperature Change vs. DC Current



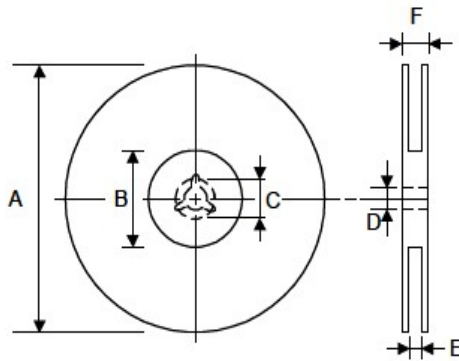
Please be sure to request approval specifications that provide further details of the products. Kindly note that the content of these specifications are subject to change or may be discontinued without prior notice. This product may not be designed/used in medical or high risk applications without Chilisin approval. Please contact our sales department before ordering.

■ Packaging

Tape Dimensions



Reel Dimensions



Dimensions in mm

TYPE	Tape Dimensions										Reel Dimensions						Quantity PCS / REEL
	A	B	K	T	D	E	W	P	P0	P2	A	B	C	D	E	F	
AMMA00040420	4.4	4.9	2.4	0.35	1.5	1.75	12	8	4	2	330	100	21.5	13	12.4	17.4	2000
AMMA00050530	5.4	5.9	3.3	0.35	1.5	1.75	12	8	4	2	330	100	21.5	13	12.4	17.4	1000
AMMA00060630	6.9	7.6	3.4	0.35	1.5	1.75	16	12	4	2	330	100	21.5	13	16.4	21.4	1000
AMMA00101040	10.4	11.5	4.5	0.35	1.5	1.75	24	16	4	2	330	100	21.5	13	24.2	29.2	500
AMMA00131364	13.4	14.1	6.8	0.4	1.5	1.75	24	16	4	2	330	100	21.5	13	24.2	29.2	250