Innovative Service Around the Globe YAGEO

DATA SHEET

INDUCTOR

Power Inductors

AMMA Series

RoHS compliant & Halogen Free



YAGEO

Product specification – July 7, 2021 V.0



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

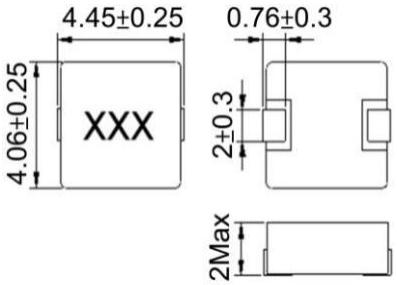
Dimensions Code (mm)		Inductance (uH)		Tolerance	
040420	4.45x4.06x2	R22	0.22	M	±20%
050530	5.49x5.18x3	1R0	1.0		
060630	6.86x6.47x3	3R3	3.3		
101040	10.5x10x4				
131364	13.2x12.9x6.4				

Power Inductor AMMA Series

Automotive
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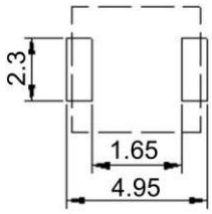
AMMA00040420 Type

■ 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%

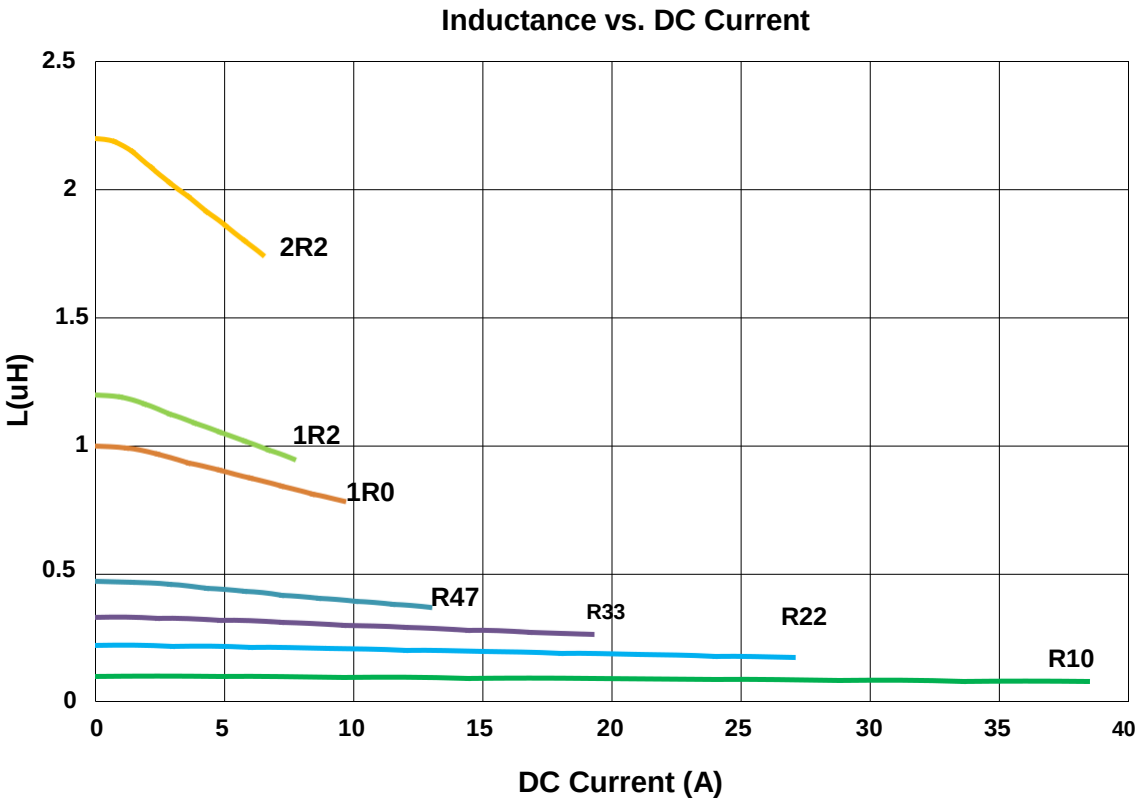
1. Operating temperature range - 55℃ ~ 125℃
2. Isat for Inductance drop 20% from its value without current
3. Irms for a 40℃ temprature rise from 25℃ ambient with current
4. Withstand voltage : 25VDC
5. Measure Equipment:
   L: Keysight 4285A or equivalent. RDC:
   ADEX AX1152D or equivalent. Isat:
   Keysight 4285A or equivalent. Irms:
   CHROMA 62050P-100-100

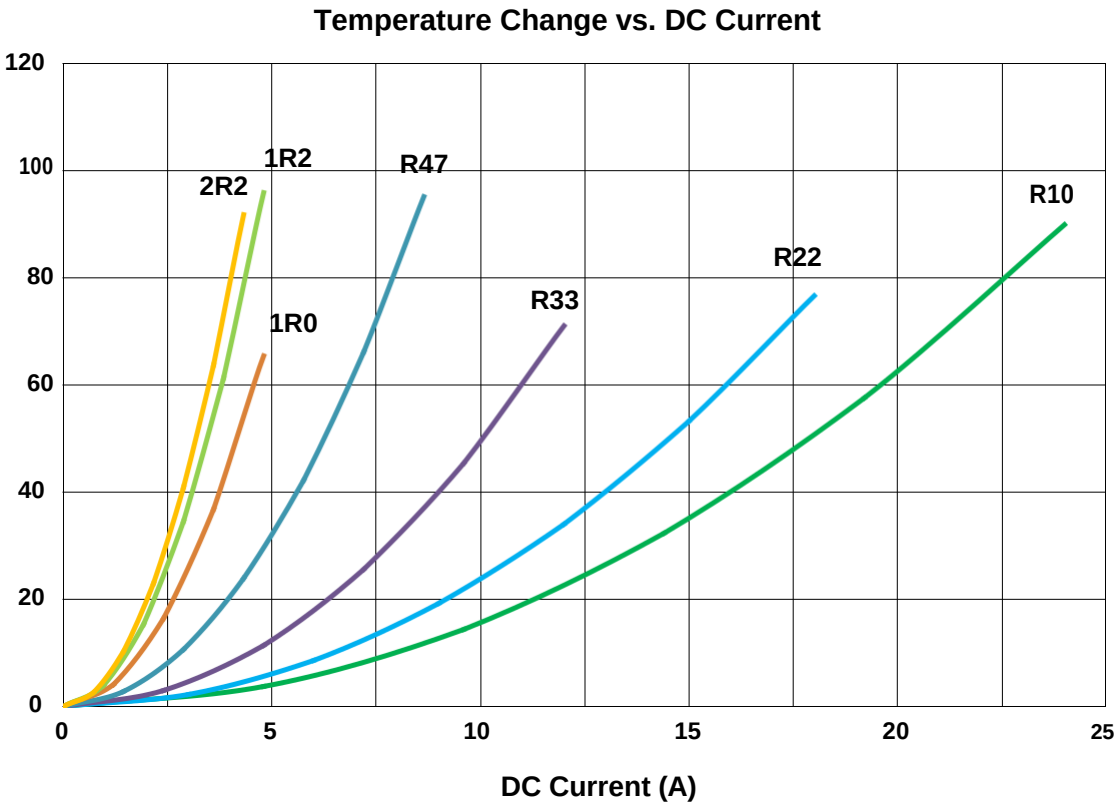
Power Inductor AMMA Series

Automotive
AEC-Q200

AMMA00040420 Type

■ Characteristics Graph



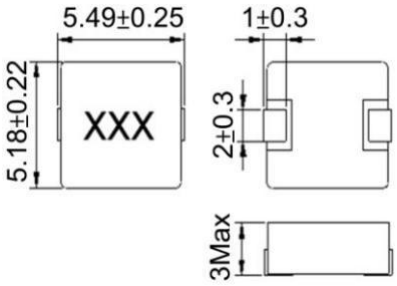


Power Inductor AMMA Series

Automotive AEC-Q200

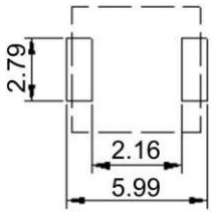
AMMA00050530 Type

■ 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%

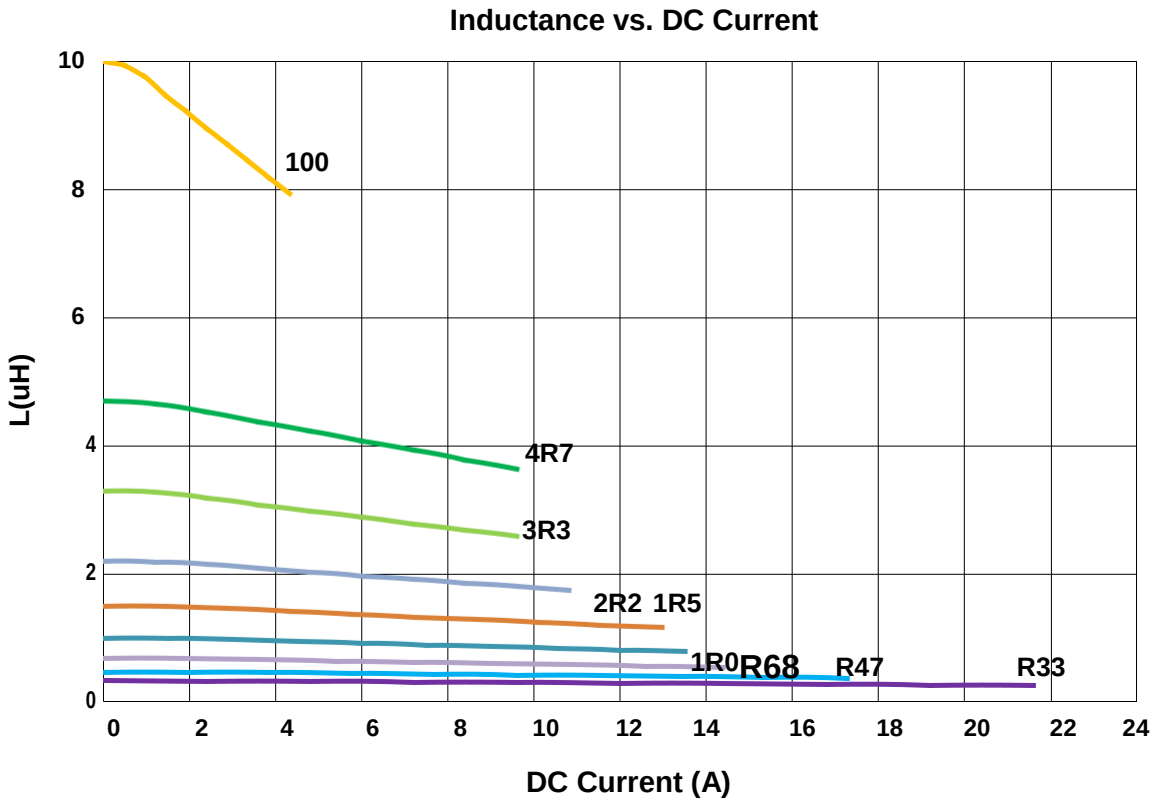
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3. Irms for a 40℃ temprature rise from 25℃ ambient with current
4. Withstand voltage : 25VDC
5. Measure Equipment:
   L: Keysight 4285A or equivalent. RDC:
   ADEX AX1152D or equivalent. Isat:
   Keysight 4285A or equivalent. Irms:
   CHROMA 62050P-100-100

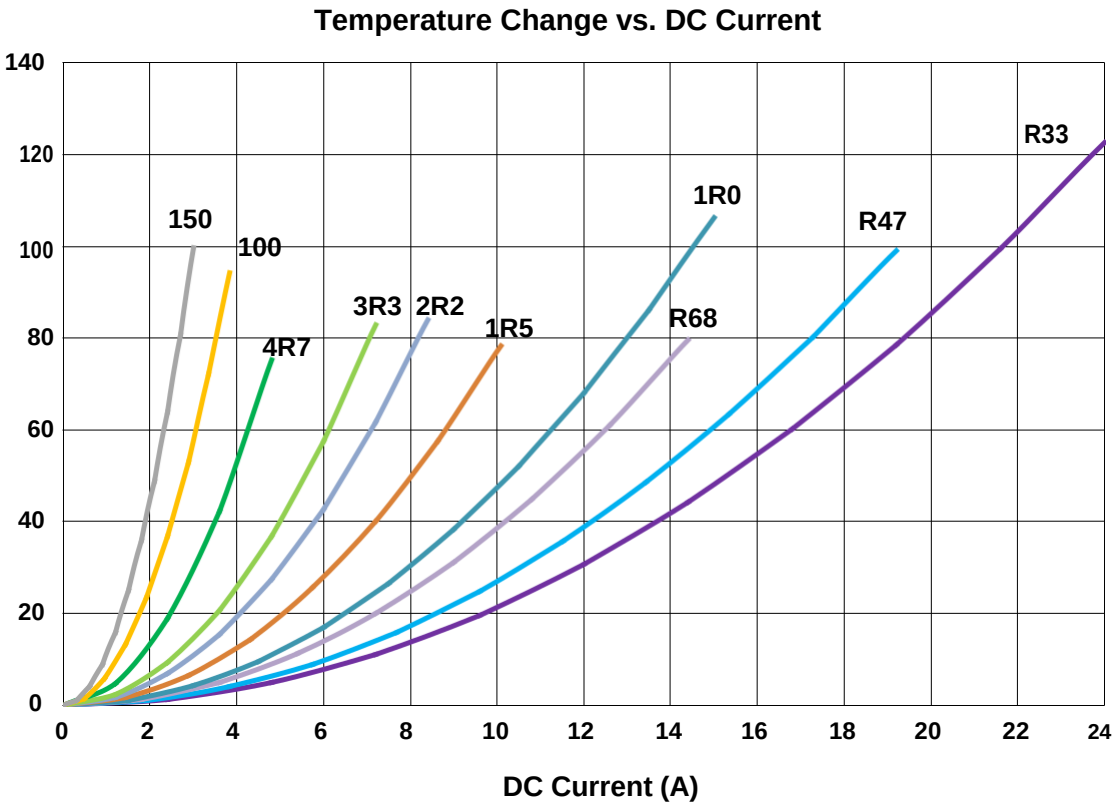
Power Inductor AMMA Series

Automotive
AEC-Q200

AMMA00050530 Type

■ Characteristics Graph



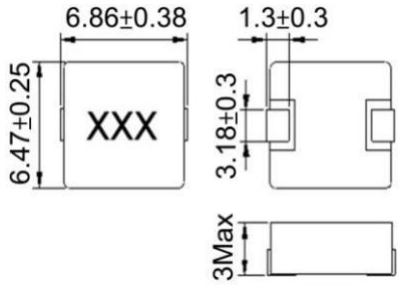


Power Inductor AMMA Series

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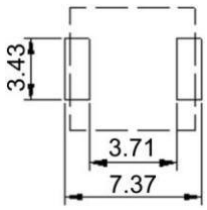
AMMA00060630 Type

■ 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
AMMA000606301R0MV1	1.0	100kHz/0.25V	10(9)	22	11	20	1R0
AMMA000606301R5MV1	1.5	100kHz/0.25V	15(14)	18	9	20	1R5
AMMA000606302R2MV1	2.2	100kHz/0.25V	20(18)	14	8	20	2R2
AMMA000606303R3MV1	3.3	100kHz/0.25V	30(28)	13.5	6	20	3R3
AMMA000606304R7MV1	4.7	100kHz/0.25V	40(37)	10	5.5	20	4R7
AMMA000606306R8MV1	6.8	100kHz/0.25V	60(54)	8	4.5	20	6R8
AMMA000606308R2MV1	8.2	100kHz/0.25V	68(64)	7.5	4	20	8R2
AMMA00060630100MV1	10	100kHz/0.25V	105(102)	7	3	20	100

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

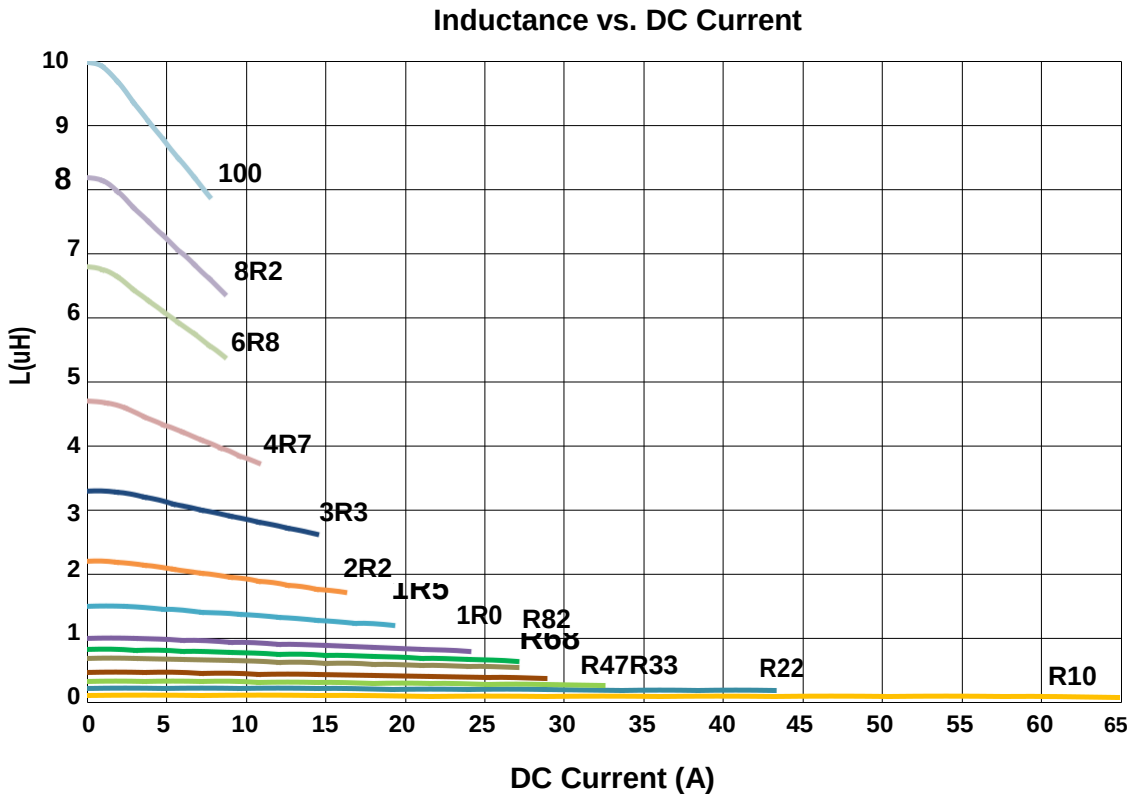
1. Operating temperature range - 55℃ ~ 125℃
2. Isat for Inductance drop 20% from its value without current
3. Irms for a 40℃ temprature rise from 25℃ ambient with current
4. Withstand voltage : 25VDC
5. Measure Equipment:
   L: Keysight 4285A or equivalent. RDC:
   ADEX AX1152D or equivalent. Isat:
   Keysight 4285A or equivalent. Irms:
   CHROMA 62050P-100-100

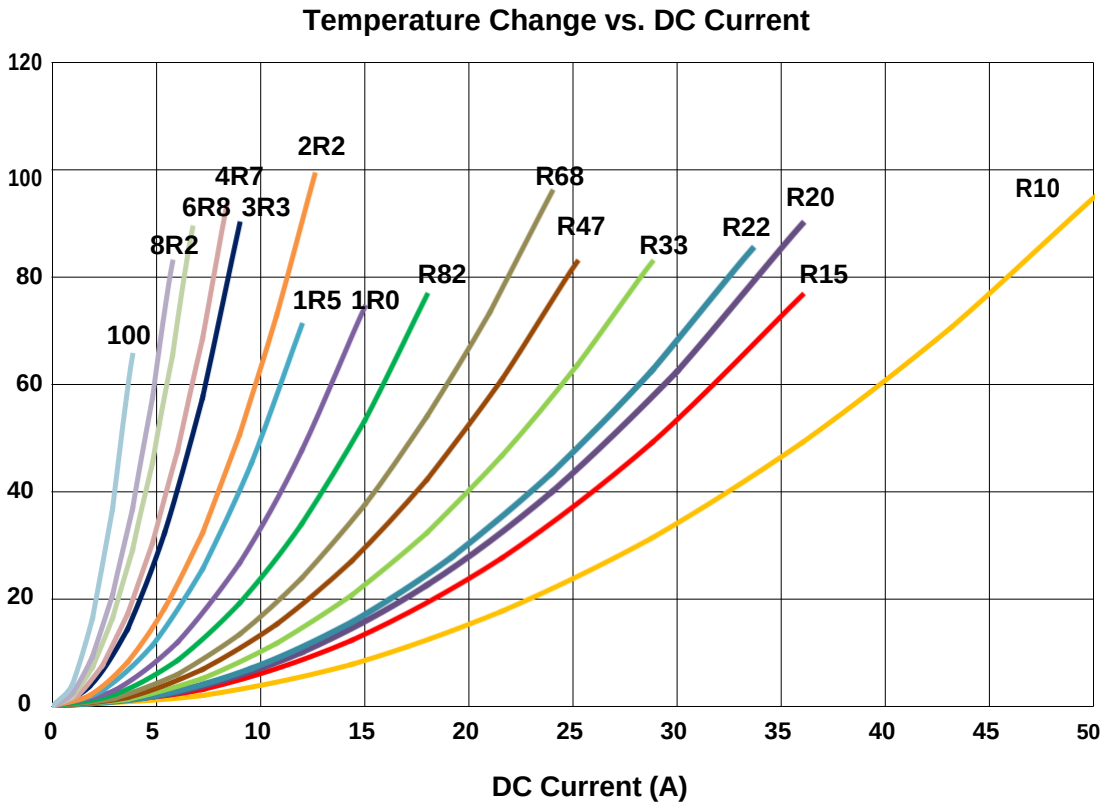
Power Inductor AMMA Series

Automotive
AEC-Q200

AMMA00060630 Type

■ Characteristics Graph



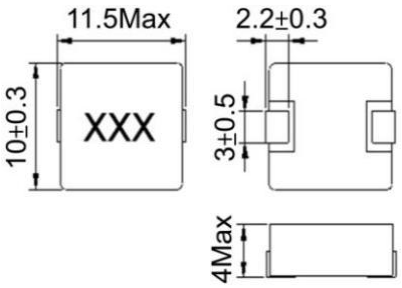


Power Inductor AMMA Series

Automotive AEC-Q200

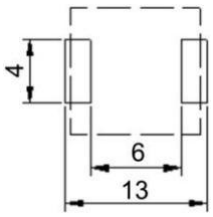
AMMA00101040 Type

■ 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%

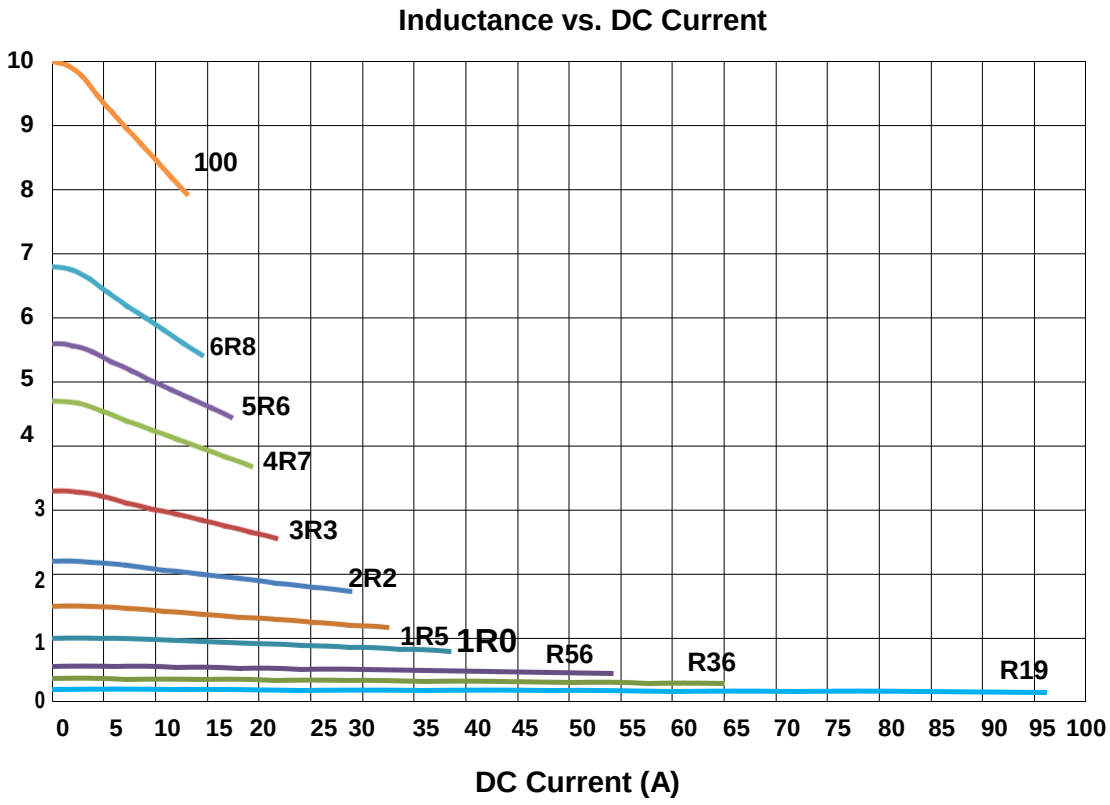
1. Operating temperature range - 55℃ ~ 125℃
2. Isat for Inductance drop 20% from its value without current
3. Irms for a 40℃ temprature rise from 25℃ ambient with current
4. Withstand voltage : 25VDC
5. Measure Equipment:
   L: Keysight 4285A or equivalent. RDC:
   ADEX AX1152D or equivalent. Isat:
   Keysight 4285A or equivalent. Irms:
   CHROMA 62050P-100-100

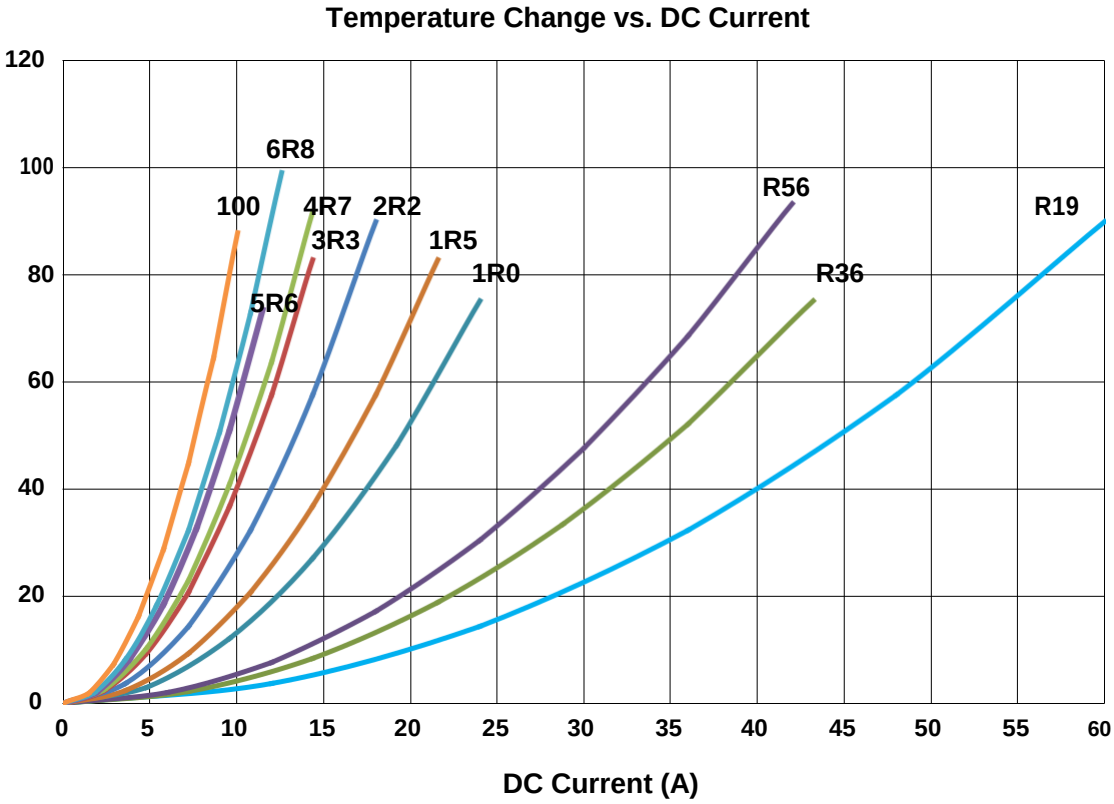
Power Inductor AMMA Series

Automotive
AEC-Q200

AMMA00101040 Type

■ Characteristics Graph



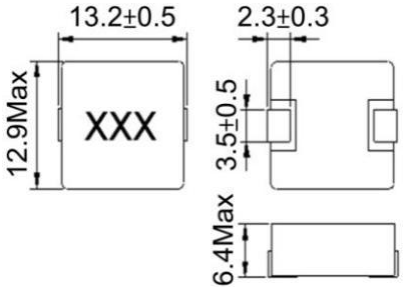


Power Inductor AMMA Series

Automotive AEC-Q200

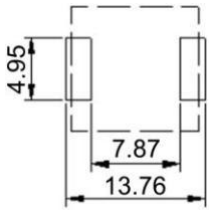
AMMA00131364 Type

■ 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%

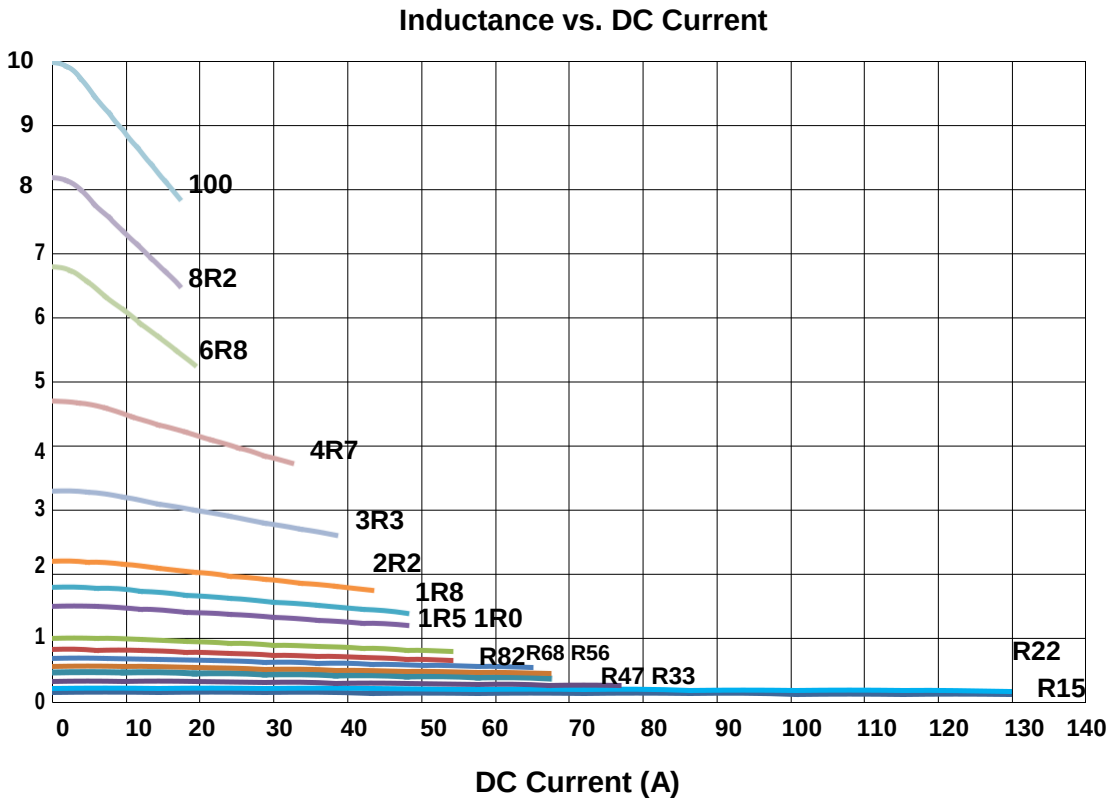
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   Keysight 4285A or equivalent. Irms:
   CHROMA 62050P-100-100

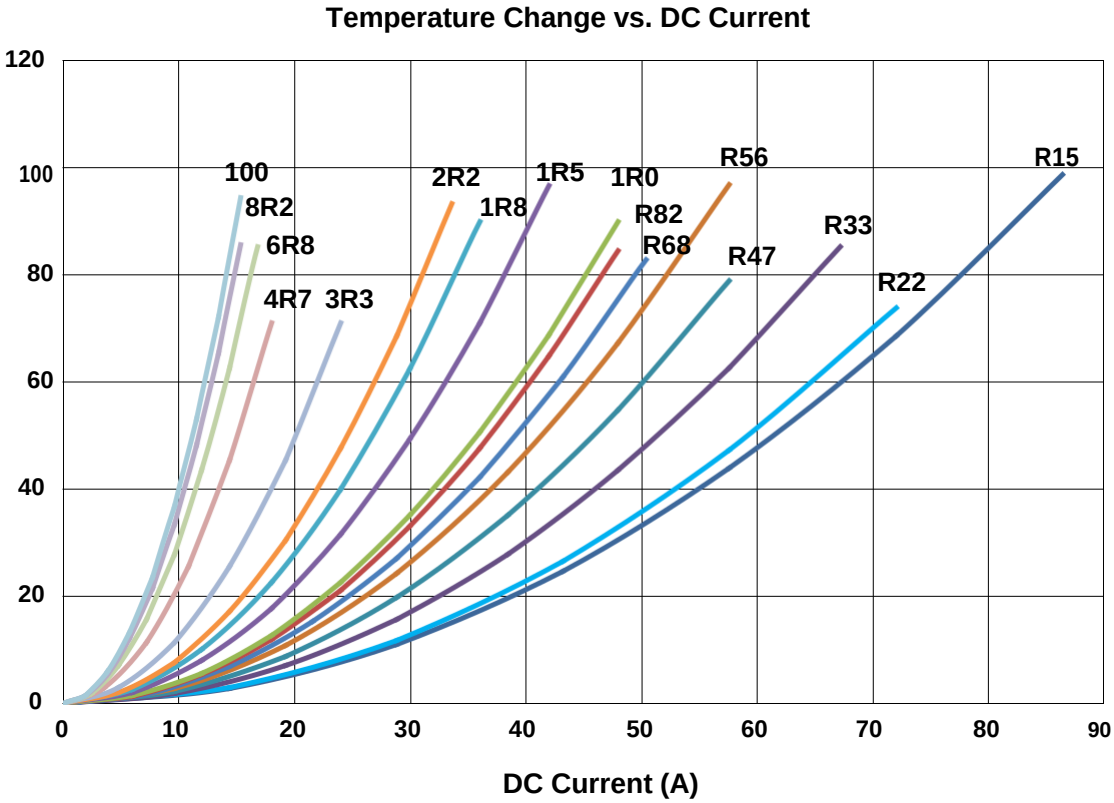
Power Inductor AMMA Series

Automotive
AEC-Q200

AMMA00131364 Type

■ Characteristics Graph



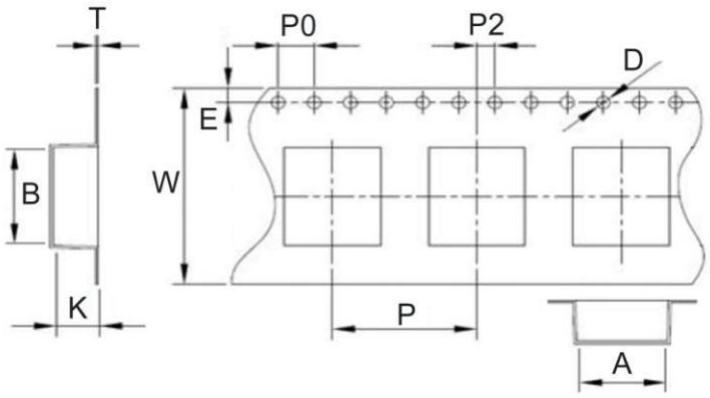


Power Inductor AMMA Series

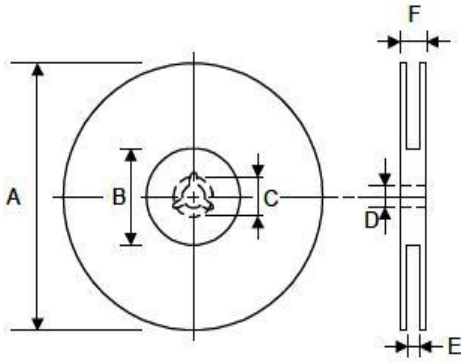
Automotive
AEC-Q200

■ Packaging

Tape Dimensions



Reel Dimensions



Dimensions in mm

TYPE	Tape Dimensions										Reel Dimensions						Quantity
	A	B	K	T	D	E	W	P	P0	P2	A	B	C	D	E	F	PCS / REEL
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	12	8	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