

Power Inductor APMI Series

Automotive
AEC-Q200

RoHS Compliant
Halogen Free
REACH Compliant



Power
Circuit

Shield

Assembly

Ferrite

Part Numbering

A	PMI	00	040440	1R0	M	00
Grade	Series Name	Control Code	Dimensions Code (mm)	Inductance (uH)	Tolerance	Internal Code
			040440 4.2x4x4	75N 0.075	K ±10%	00
			040440-0H 4x4x4	R10 0.10	L ±15%	0E
			070750 7x7x4.96		M ±20%	0F
			090680 9.4x6.2x8		T ±30%	0H
			100750 10.2x7x4.96			0J
			100868 10.2x7.8x6.8			0K
			100874 10.31x7.65x7.4			

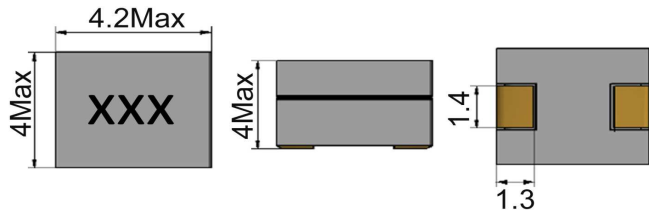
Please be sure to request approval specifications that provide further details of the products. Kindly note that the content of these specifications are subject to change or may be discontinued without prior notice. This product may not be designed/used in medical or high risk applications without Chilisin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

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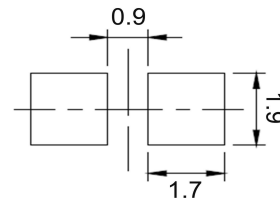
APMI00040440 Type

■ Dimensions



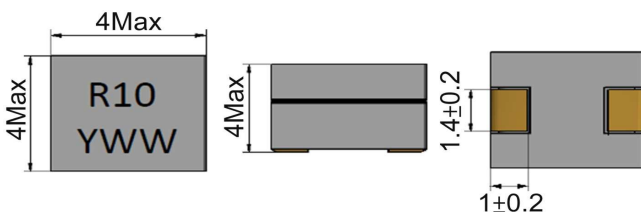
unit:mm

■ Recommended Land Pattern

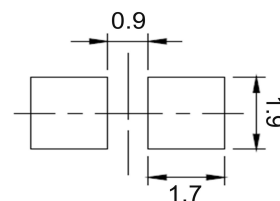


unit:mm

APMI00040440-0H Type



unit:mm



unit:mm

■ Electrical Characteristics

Part No.	Inductance (uH)	Test Freq.	RDC (mΩ)±9%	(A)Typ			I _{rms} (A)Typ	Tolerance (±%)	Marking
				Isat 1	Isat 2	Isat 3			
APMI0004044022N□0J	0.022	100kHz,1V	0.23	60	58	55	28	20,30	22N
APMI0004044065N□0K	0.065	100kHz,1V	0.32	25	-	-	19	15,20,30	65N
APMI00040440R10□0H	0.100	100kHz,0.1V	0.32	17	-	12	19	15,20,30	R10YWW

Note: When ordering, please specify tolerance code. Tolerance: L=±15% / M=±20% / T=±30%

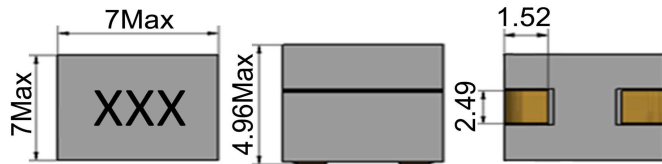
- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- Isat 1 : Based on Inductance change drop ($\Delta L/L_0$: drop 20% Typ.)@ ambient temp. 25°C
- Isat 2 : Based on Inductance change drop ($\Delta L/L_0$: drop 20% Typ.)@ ambient temp. 75°C
- Isat 3 : Based on Inductance change drop ($\Delta L/L_0$: drop 20% Typ.)@ ambient temp. 100°C
- I_{rms} for a 40°C temprature rise from 25°C ambient with current
- Rated DC Current: The less value which is Isat 1 or I_{rms}
- Measure Equipment:
L: HP4284A PRECISION LCR METER (or equivalent)
RDC: CHROMA MODEL 16502 MILLIOHMMETER (or equivalent)
Isat:WK3255BQ+ WK3265B (or equivalent)
I_{rms}: WK3255BQ+ WK3265B (or equivalent)

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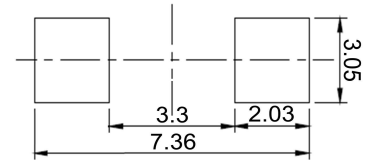
APMI00070750 Type

■ Dimensions



unit:mm

■ Recommended Land Pattern



unit:mm

■ Electrical Characteristics

Part No.	Inductance (uH)	Test Freq.	RDC (mΩ)	Isat (A)Typ	Irms (A)Typ	Tolerance (±%)	Marking
APMI0007075072N□00	0.072	100kHz,0.1V	0.32±9.4%	58	31	10,20,30	72N
APMI00070750R10□00	0.10	100kHz,0.1V	0.32±9.4%	46	31	10,20,30	R10
APMI00070750R11□00	0.11	100kHz,0.1V	0.32±9.4%	46	31	20,30	R11
APMI00070750R12□00	0.12	100kHz,0.1V	0.32±9.4%	38	31	10,20,30	R12
APMI00070750R15□00	0.15	100kHz,0.1V	0.32±9.4%	30	31	10,20,30	R15
APMI00070750R18□00	0.18	100kHz,0.1V	0.32±9.4%	25	31	10,20,30	R18
APMI00070750R22□00	0.22	100kHz,0.1V	0.32±9.4%	20	31	10,20,30	R22

Note: When ordering, please specify tolerance code. Tolerance: K=±10% / M=±20% / T=±30%

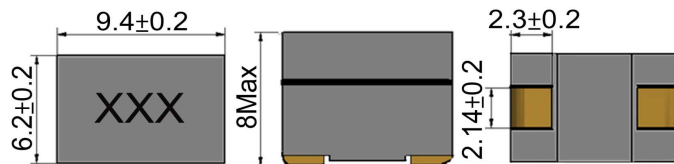
- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- Isat : Based on Inductance change drop ($\Delta L/L_0$: drop 20% Typ.)@ ambient temp. 25°C
- Irms for a 40°C temprature rise from 25°C ambient with current
- Rated DC Current: The less value which is Isat or Irms
- Measure Equipment:
 - L: HP4284A PRECISION LCR METER (or equivalent)
 - RDC: CHROMA MODEL 16502 MILLIOHMMETER (or equivalent)
 - Isat:WK3255BQ+ WK3265B (or equivalent)
 - Irms: WK3255BQ+ WK3265B (or equivalent)

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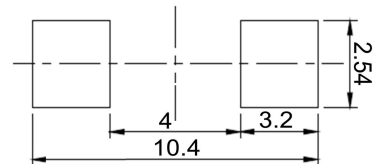
APMI00090680 Type

■ Dimensions



unit:mm

■ Recommended Land Pattern



unit:mm

■ Electrical Characteristics

Part No.	Inductance (uH)	Test Freq.	RDC (mΩ)	Isat (A)Typ	Irms (A)Typ	Tolerance (±%)	Marking
APMI00090680R10□00	0.10	100kHz,1V	0.29±5%	95	51	10,15,20	R10
APMI00090680R12□00	0.12	100kHz,1V	0.29±5%	80	51	10,15,20	R12
APMI00090680R15□00	0.15	100kHz,1V	0.29±5%	65	51	10,15,20	R15
APMI00090680R18□00	0.18	100kHz,1V	0.29±5%	54	51	10,15,20	R18
APMI00090680R22□00	0.22	100kHz,1V	0.29±5%	44	51	10,15,20	R22
APMI00090680R28□00	0.28	100kHz,1V	0.29±5%	34	51	10,15,20	R28
APMI00090680R30□00	0.30	100kHz,1V	0.29±5%	32.5	51	10,15,20	R30

Note: When ordering, please specify tolerance code. Tolerance: K=±10% / L=±15% / M=±20%

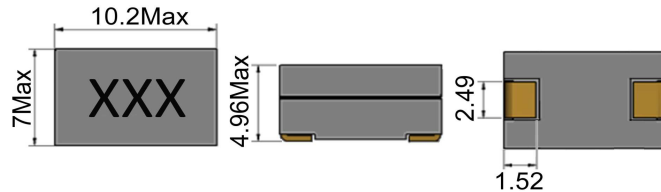
- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- Isat : Based on Inductance change drop ($\Delta L/L_0$: drop 20% Typ.)@ ambient temp. 25°C
- Irms for a 40°C temprature rise from 25°C ambient with current
- Rated DC Current: The less value which is Isat or Irms
- Measure Equipment:
L: HP4284A PRECISION LCR METER (or equivalent)
RDC: CHROMA MODEL 16502 MILLIOHMMETER (or equivalent)
Isat:WK3255BQ+ WK3265B (or equivalent)
Irms: WK3255BQ+ WK3265B (or equivalent)

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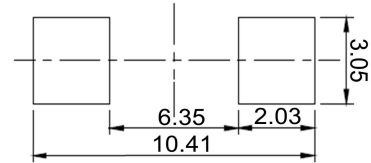
APMI00100750 Type

■ Dimensions



unit:mm

■ Recommended Land Pattern



unit:mm

■ Electrical Characteristics

Part No.	Inductance (μ H)	Test Freq.	RDC (m Ω)	Isat (A)Typ	Irms (A)Typ	Tolerance ($\pm$ %)	Marking
APMI0010075085N□00	0.085	100kHz,0.1V	0.39 $\pm$ 7.7%	>70	31	20,30	85N
APMI00100750R10□00	0.10	100kHz,0.1V	0.39 $\pm$ 7.7%	70	31	15,20	R10
APMI00100750R12□00	0.12	100kHz,0.1V	0.39 $\pm$ 7.7%	52	31	15,20	R12
APMI00100750R15□00	0.15	100kHz,0.1V	0.39 $\pm$ 7.7%	40	31	15,20	R15
APMI00100750R16□00	0.155	100kHz,0.1V	0.39 $\pm$ 7.7%	40	31	15,20	R16
APMI00100750R20□00	0.20	100kHz,0.1V	0.39 $\pm$ 7.7%	33	31	15,20	R20
APMI00100750R22□00	0.22	100kHz,0.1V	0.39 $\pm$ 7.7%	33	25	15,20	R22

Note: When ordering, please specify tolerance code. Tolerance: L= $\pm$ 15% / M= $\pm$ 20% / T= $\pm$ 30%

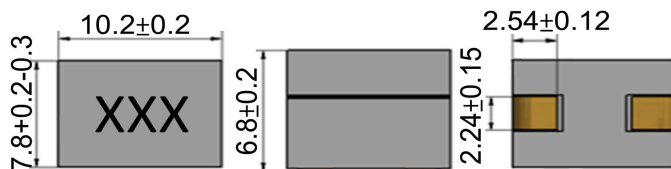
- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- Isat : Based on Inductance change drop (Δ L/Lo : drop 20% Typ.)@ ambient temp. 25°C
- Irms for a 40°C temprature rise from 25°C ambient with current
- Rated DC Current: The less value which is Isat or Irms
- Measure Equipment:
 - L: HP4284A PRECISION LCR METER (or equivalent)
 - RDC: CHROMA MODEL 16502 MILLIOHMMETER (or equivalent)
 - Isat:WK3255BQ+ WK3265B (or equivalent)
 - Irms: WK3255BQ+ WK3265B (or equivalent)

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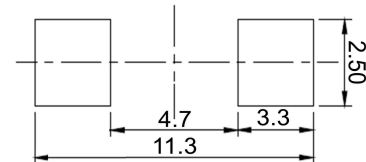
APMI00100868 Type

■ Dimensions



unit:mm

■ Recommended Land Pattern



unit:mm

■ Electrical Characteristics

Part No.	Inductance (μ H)	Test Freq.	RDC (m Ω)	Isat (A)Typ	Irms (A)Typ	Tolerance ($\pm$ %)	Marking
APMI00100868R12□0E	0.12	100kHz,0.1V	0.29 $\pm$ 7%	80	54	10,15,20	R12
APMI00100868R12□0F	0.12	100kHz,0.1V	0.29 $\pm$ 5%	80	54	10,15,20	R12
APMI00100868R14□0E	0.14	100kHz,0.1V	0.29 $\pm$ 7%	72	54	10,15,20	R14
APMI00100868R14□0F	0.14	100kHz,0.1V	0.29 $\pm$ 5%	72	54	10,15,20	R14
APMI00100868R17□0E	0.17	100kHz,0.1V	0.29 $\pm$ 7%	58	54	10,15,20	R17
APMI00100868R17□0F	0.17	100kHz,0.1V	0.29 $\pm$ 5%	58	54	10,15,20	R17
APMI00100868R18□0E	0.18	100kHz,0.1V	0.29 $\pm$ 7%	56	54	10,15,20	R18
APMI00100868R18□0F	0.18	100kHz,0.1V	0.29 $\pm$ 5%	56	54	10,15,20	R18
APMI00100868R22□0E	0.22	100kHz,0.1V	0.29 $\pm$ 7%	50	54	10,15,20	R22
APMI00100868R22□0F	0.22	100kHz,0.1V	0.29 $\pm$ 5%	50	54	10,15,20	R22
APMI00100868R30□0E	0.30	100kHz,0.1V	0.29 $\pm$ 7%	32	54	10,15,20	R30
APMI00100868R30□0F	0.30	100kHz,0.1V	0.29 $\pm$ 5%	32	54	10,15,20	R30

Note: When ordering, please specify tolerance code. Tolerance: K= $\pm$ 10% / L= $\pm$ 15% / M= $\pm$ 20%

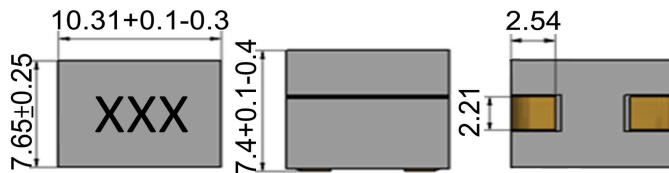
- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- Isat : Based on Inductance change drop (Δ L/Lo : drop 20% Typ.)@ ambient temp. 25°C
- Irms for a 40°C temprature rise from 25°C ambient with current
- Rated DC Current: The less value which is Isat or Irms
- Measure Equipment:
L: HP4284A PRECISION LCR METER (or equivalent)
RDC: CHROMA MODEL 16502 MILLIOHM METER (or equivalent)
Isat:WK3255BQ+ WK3265B (or equivalent)
Irms: WK3255BQ+ WK3265B (or equivalent)

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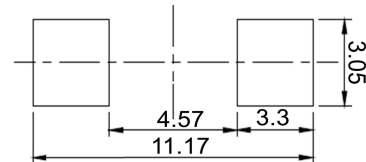
APMI00100874 Type

■ Dimensions



unit:mm

■ Recommended Land Pattern



unit:mm

■ Electrical Characteristics

Part No.	Inductance (uH)	Test Freq.	RDC (mΩ)	Isat (A)Typ	Irms (A)Typ	Tolerance (±%)	Marking
APMI00100874R12□00	0.115	100kHz,0.1V	0.29±10%	94	41	15,20	R115
APMI00100874R13□00	0.13	100kHz,0.1V	0.29±10%	85	41	15,20	R13
APMI00100874R15□00	0.15	100kHz,0.1V	0.29±10%	72	41	15,20	R15
APMI00100874R17□00	0.17	100kHz,0.1V	0.29±10%	62	41	15,20	R17
APMI00100874R18□00	0.175	100kHz,0.1V	0.29±10%	62	41	15,20	R175
APMI00100874R22□00	0.215	100kHz,0.1V	0.29±10%	48	41	15,20	R215
APMI00100874R23□00	0.23	100kHz,0.1V	0.29±10%	43	41	15,20	R23
APMI00100874R27□00	0.27	100kHz,0.1V	0.29±10%	37	41	15,20	R27
APMI00100874R30□00	0.30	100kHz,0.1V	0.29±10%	32	41	15,20	R30

Note: When ordering, please specify tolerance code. Tolerance: L=±15% / M=±20%

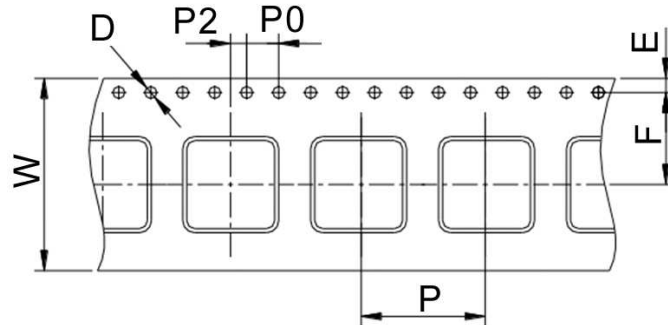
- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
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 - RDC: CHROMA MODEL 16502 MILLIOHMETER (or equivalent)
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 - Irms: WK3255BQ+ WK3265B (or equivalent)

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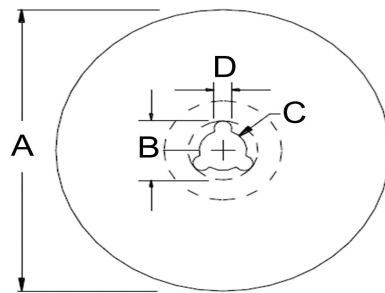
Automotive
AEC-Q200

■ Packaging

Tape Dimensions



Reel Dimensions



Dimensions in mm

TYPE	Tape Dimensions							Reel Dimensions				Quantity PCS / REEL
	W	D	E	F	P	P0	P2	A	B	C	D	
APMI00040440	12	1.5	1.75	5.5	8	4	2	330	20	13	2	2000
APMI00040440-OH	12	1.5	1.75	5.5	8	4	2	330	20	13	2	1800
APMI00070750	16	1.5	1.75	7.5	12	4	2	330	20	13	2	1000
APMI00090680	24	1.5	1.75	11.5	12	4	2	330	20	13	2	500
APMI00100750	24	1.5	1.75	11.5	12	4	2	330	20	13	2	800
APMI00100868	24	1.5	1.75	11.5	12	4	2	330	20	13	2	500
APMI00100874	24	1.5	1.75	11.5	12	4	2	330	20	13	2	500

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