

**Power Inductor APMI Series**

**Automotive  
AEC-Q200**

RoHS Compliant  
Halogen Free  
REACH Compliant



Power  
Circuit

Shield

Assembly

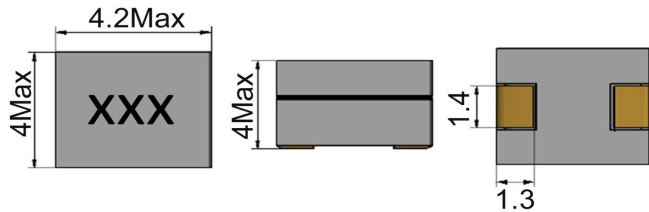
Ferrite

**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			

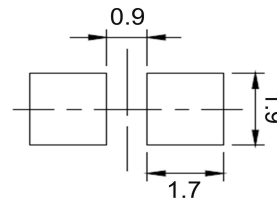
**APMI00040440 Type**

**■ Dimensions**



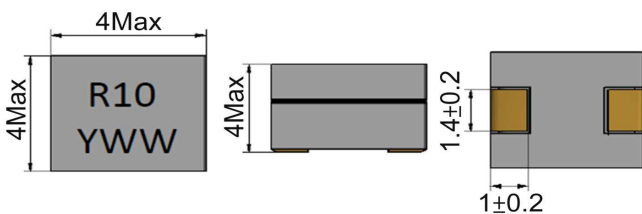
unit:mm

**■ Recommended Land Pattern**

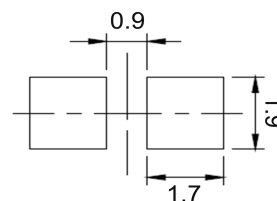


unit:mm

**APMI00040440-0H Type**



unit:mm



unit:mm

**■ Electrical Characteristics**

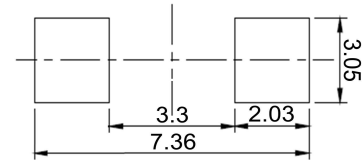
Part No.	Inductance (uH)	Test Freq.	RDC (mΩ)±9%	(A)Typ			I <sub>rms</sub> (A)Typ	Tolerance (±%)	Marking
				Isat 1	Isat 2	Isat 3			
APMI0004044022N□0J	0.022	100kHz,1V	0.23	60	58	55	28	20,30	22N
APMI0004044065N□0K	0.065	100kHz,1V	0.32	25	-	-	19	15,20,30	65N
APMI00040440R10□0H	0.100	100kHz,0.1V	0.32	17	-	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<sub>rms</sub> for a 40°C temprature rise from 25°C ambient with current
- Rated DC Current: The less value which is Isat 1 or I<sub>rms</sub>
- Measure Equipment:  
 L: HP4284A PRECISION LCR METER (or equivalent)  
 RDC: CHROMA MODEL 16502 MILLIOHMETER (or equivalent)  
 Isat:WK3255BQ+ WK3265B (or equivalent)  
 I<sub>rms</sub>: WK3255BQ+ WK3265B (or equivalent)

**APMI00070750 Type**
**■ Dimensions**


unit:mm

**■ Recommended Land Pattern**


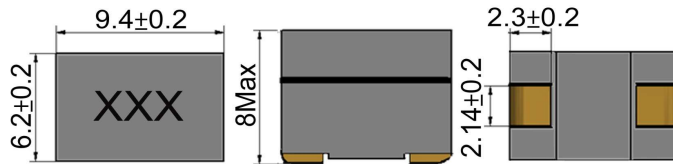
unit:mm

**■ Electrical Characteristics**

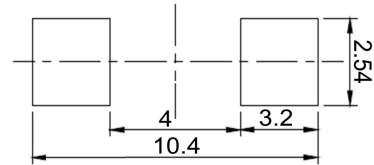
Part No.	Inductance (uH)	Test Freq.	RDC (mΩ)	Isat (A)Typ	Irms (A)Typ	Tolerance (±%)	Marking
APMI0007075072N□00	0.072	100kHz,0.1V	0.32±9.4%	58	31	10,20,30	72N
APMI00070750R10□00	0.10	100kHz,0.1V	0.32±9.4%	46	31	10,20,30	R10
APMI00070750R11□00	0.11	100kHz,0.1V	0.32±9.4%	46	31	20,30	R11
APMI00070750R12□00	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 temperature 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 MILLIOHMETER (or equivalent)
  - Isat:WK3255BQ+ WK3265B (or equivalent)
  - Irms: WK3255BQ+ WK3265B (or equivalent)

**APMI00090680 Type**
**■ Dimensions**


unit:mm

**■ Recommended Land Pattern**


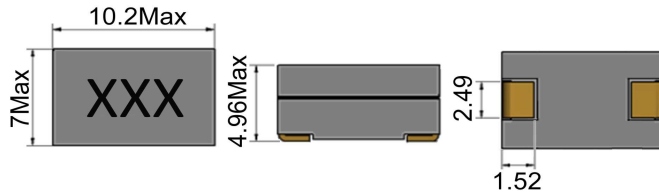
unit:mm

**■ Electrical Characteristics**

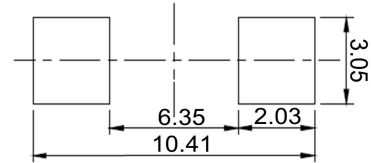
Part No.	Inductance (uH )	Test Freq.	RDC (mΩ)	Isat (A)Typ	Irms (A)Typ	Tolerance (±%)	Marking
APMI00090680R10□00	0.10	100kHz,1V	0.29±5%	95	51	10,15,20	R10
APMI00090680R12□00	0.12	100kHz,1V	0.29±5%	80	51	10,15,20	R12
APMI00090680R15□00	0.15	100kHz,1V	0.29±5%	65	51	10,15,20	R15
APMI00090680R18□00	0.18	100kHz,1V	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 temperature 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 MILLIOHMETER (or equivalent)  
 Isat:WK3255BQ+ WK3265B (or equivalent)  
 Irms: WK3255BQ+ WK3265B (or equivalent)

**APMI00100750 Type**
**■ Dimensions**


unit:mm

**■ Recommended Land Pattern**


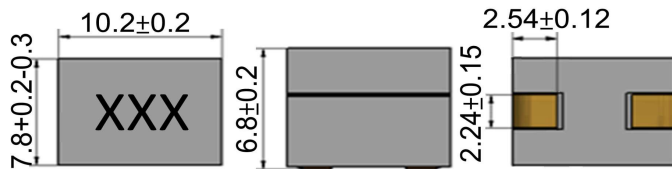
unit:mm

**■ Electrical Characteristics**

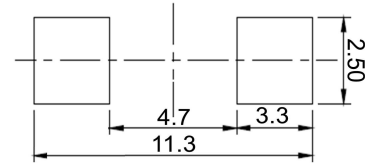
Part No.	Inductance (uH)	Test Freq.	RDC (mΩ)	Isat (A)Typ	Irms (A)Typ	Tolerance (±%)	Marking
APMI0010075085N□□00	0.085	100kHz,0.1V	0.39±7.7%	>70	31	20,30	85N
APMI00100750R10□□00	0.10	100kHz,0.1V	0.39±7.7%	70	31	15,20	R10
APMI00100750R12□□00	0.12	100kHz,0.1V	0.39±7.7%	52	31	15,20	R12
APMI00100750R15□□00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

**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 : Based on Inductance change drop ( $\Delta L/L_0$  : drop 20% Typ.)@ ambient temp. 25°C
- Irms for a 40°C temperature 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 MILLIOHMETER (or equivalent)  
 Isat:WK3255BQ+ WK3265B (or equivalent)  
 Irms: WK3255BQ+ WK3265B (or equivalent)

**APMI00100868 Type**
**■ Dimensions**


unit:mm

**■ Recommended Land Pattern**


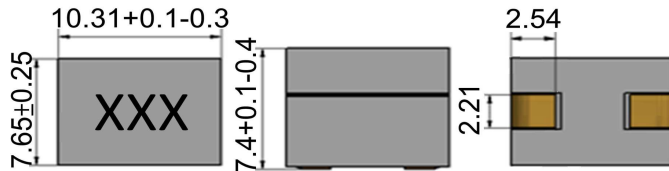
unit:mm

**■ Electrical Characteristics**

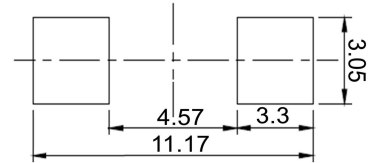
Part No.	Inductance (uH)	Test Freq.	RDC (mΩ)	Isat (A)Typ	Irms (A)Typ	Tolerance (±%)	Marking
APMI00100868R12□0E	0.12	100kHz,0.1V	0.29±7%	80	54	10,15,20	R12
APMI00100868R12□0F	0.12	100kHz,0.1V	0.29±5%	80	54	10,15,20	R12
APMI00100868R14□0E	0.14	100kHz,0.1V	0.29±7%	72	54	10,15,20	R14
APMI00100868R14□0F	0.14	100kHz,0.1V	0.29±5%	72	54	10,15,20	R14
APMI00100868R17□0E	0.17	100kHz,0.1V	0.29±7%	58	54	10,15,20	R17
APMI00100868R17□0F	0.17	100kHz,0.1V	0.29±5%	58	54	10,15,20	R17
APMI00100868R18□0E	0.18	100kHz,0.1V	0.29±7%	56	54	10,15,20	R18
APMI00100868R18□0F	0.18	100kHz,0.1V	0.29±5%	56	54	10,15,20	R18
APMI00100868R22□0E	0.22	100kHz,0.1V	0.29±7%	50	54	10,15,20	R22
APMI00100868R22□0F	0.22	100kHz,0.1V	0.29±5%	50	54	10,15,20	R22
APMI00100868R30□0E	0.30	100kHz,0.1V	0.29±7%	32	54	10,15,20	R30
APMI00100868R30□0F	0.30	100kHz,0.1V	0.29±5%	32	54	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 MILLIOHMETER (or equivalent)
  - Isat:WK3255BQ+ WK3265B (or equivalent)
  - Irms: WK3255BQ+ WK3265B (or equivalent)

**APMI00100874 Type**
**■ Dimensions**


unit:mm

**■ Recommended Land Pattern**


unit:mm

**■ Electrical Characteristics**

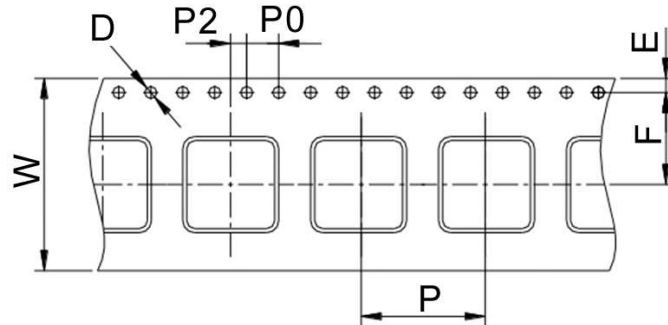
Part No.	Inductance (uH)	Test Freq.	RDC (mΩ)	Isat (A)Typ	Irms (A)Typ	Tolerance (±%)	Marking
APMI00100874R12□00	0.115	100kHz,0.1V	0.29±10%	94	41	15,20	R115
APMI00100874R13□00	0.13	100kHz,0.1V	0.29±10%	85	41	15,20	R13
APMI00100874R15□00	0.15	100kHz,0.1V	0.29±10%	72	41	15,20	R15
APMI00100874R17□00	0.17	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%**

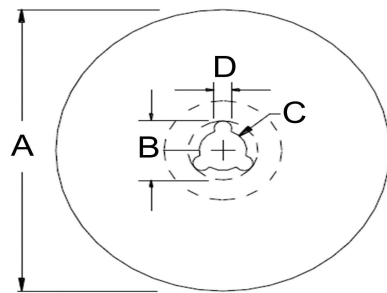
- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- Isat : Based on Inductance change drop ( $\Delta L/L_0$  : drop 20% Typ.)@ ambient temp. 25°C
- Irms for a 40°C temprature rise from 25°C ambient with current
- Rated DC Current: The less value which is Isat or Irms
- Measure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

**■ 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