

Power Inductor APCA Series

**Automotive
AEC-Q200**

RoHS Compliant
Halogen Free
REACH Compliant



- Power Circuit
- Shield
- Wire Wound
- Ferrite

Part Numbering

A	PCA	00	060645	1R0	T	00
Grade	Series Name	Control Code	Dimensions Code (mm)	Inductance (uH)	Tolerance	Internal Code
			060645 6.0x6.3x4.5	1R0 1.0	M ±20%	
			070745 7.0x7.4x4.5	100 10	T ±30%	
				101 100		

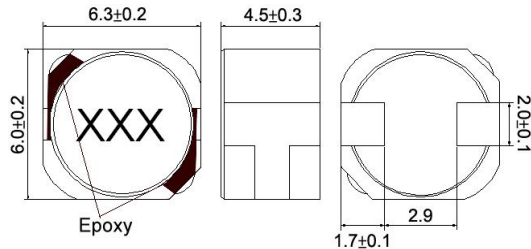
This specification applies to Power Inductors for Automotive Electronics based on AEC-Q200 except for Power train and Safety.

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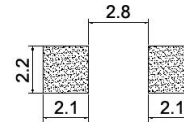
APCA00060645 Type

■ Dimensions



unit:mm

■ Recommended Land Pattern



unit:mm

■ Electrical Characteristics

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)Max.	Isat(A) Typ(Max)	Irms (A)	Tolerance (±%)	Marking
APCA000606451R0□00	1.0	100 kHz,1 V	0.0143	6.7(6.0)	4.8	30	1R0
APCA000606451R5□00	1.5	100 kHz,1 V	0.0169	5.5(5.2)	4.5	30	1R5
APCA000606452R2□00	2.2	100 kHz,1 V	0.0195	4.2(3.6)	4.1	30	2R2
APCA000606453R3□00	3.3	100 kHz,1 V	0.0247	3.5(3.2)	3.7	30	3R3
APCA000606454R7□00	4.7	100 kHz,1 V	0.0299	3.1(2.5)	3.3	30	4R7
APCA000606456R8□00	6.8	100 kHz,1 V	0.0351	2.8(2.0)	3.1	30	6R8
APCA00060645100□00	10	100 kHz,1 V	0.042	2.1(1.7)	2.6	20	100
APCA00060645150□00	15	100 kHz,1 V	0.072	1.7(1.4)	2.0	20	150
APCA00060645220□00	22	100 kHz,1 V	0.09	1.4(1.1)	1.8	20	220
APCA00060645330□00	33	100 kHz,1 V	0.12	1.1(0.9)	1.6	20	330
APCA00060645470□00	47	100 kHz,1 V	0.156	0.97(0.78)	1.4	20	470
APCA00060645680□00	68	100 kHz,1 V	0.24	0.81(0.65)	1.1	20	680
APCA00060645101□00	100	100 kHz,1 V	0.384	0.61(0.55)	0.86	20	101
APCA00060645151□00	150	100 kHz,1 V	0.576	0.53(0.46)	0.72	20	151
APCA00060645221□00	220	100 kHz,1 V	0.864	0.47(0.36)	0.57	20	221
APCA00060645331□00	330	100 kHz,1 V	1.104	0.36(0.28)	0.49	20	331
APCA00060645471□00	470	100 kHz,1 V	1.56	0.28(0.25)	0.41	20	471

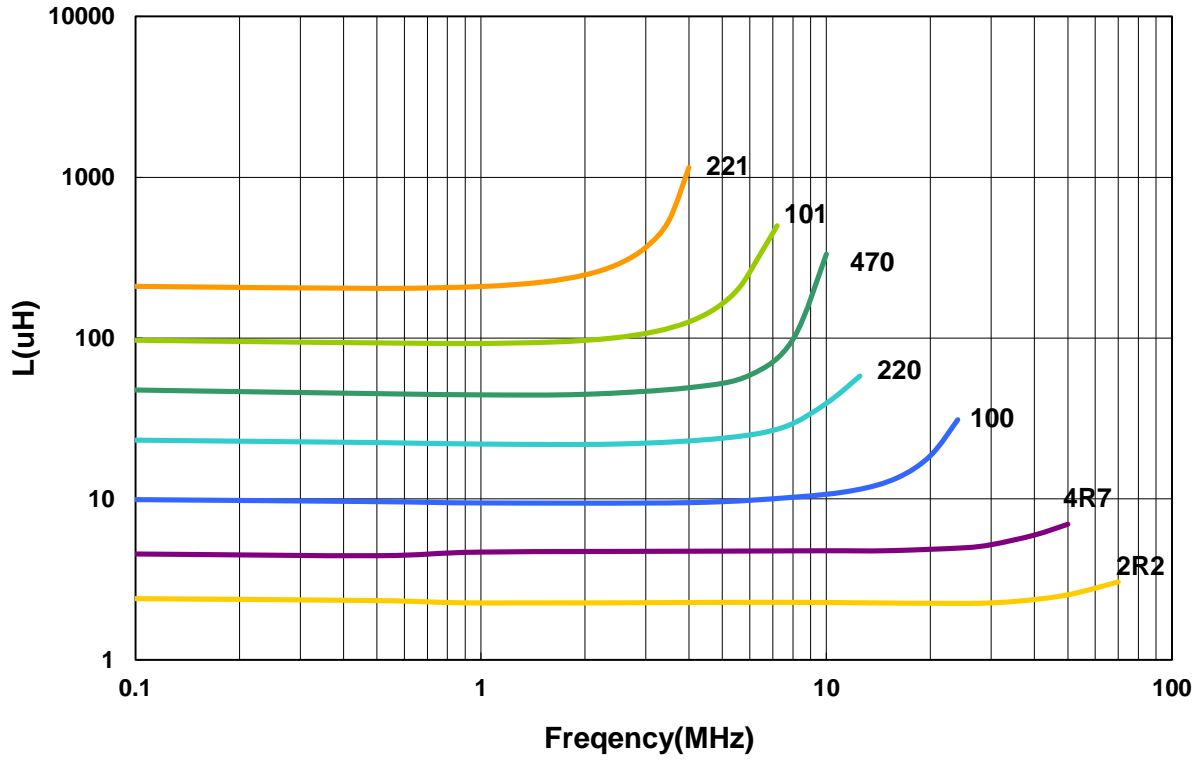
Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%

1. Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
2. Isat for Inductance drop 30% from its value without current
3. The actual use current is suggested not to be out of Isat*80%
4. I rms for a 40°C temprature rise from 25°C ambient.
5. Measure Equipment:
L: HP4284+42841A
RDC: Chroma 16502
Isat: HP4284+42841A

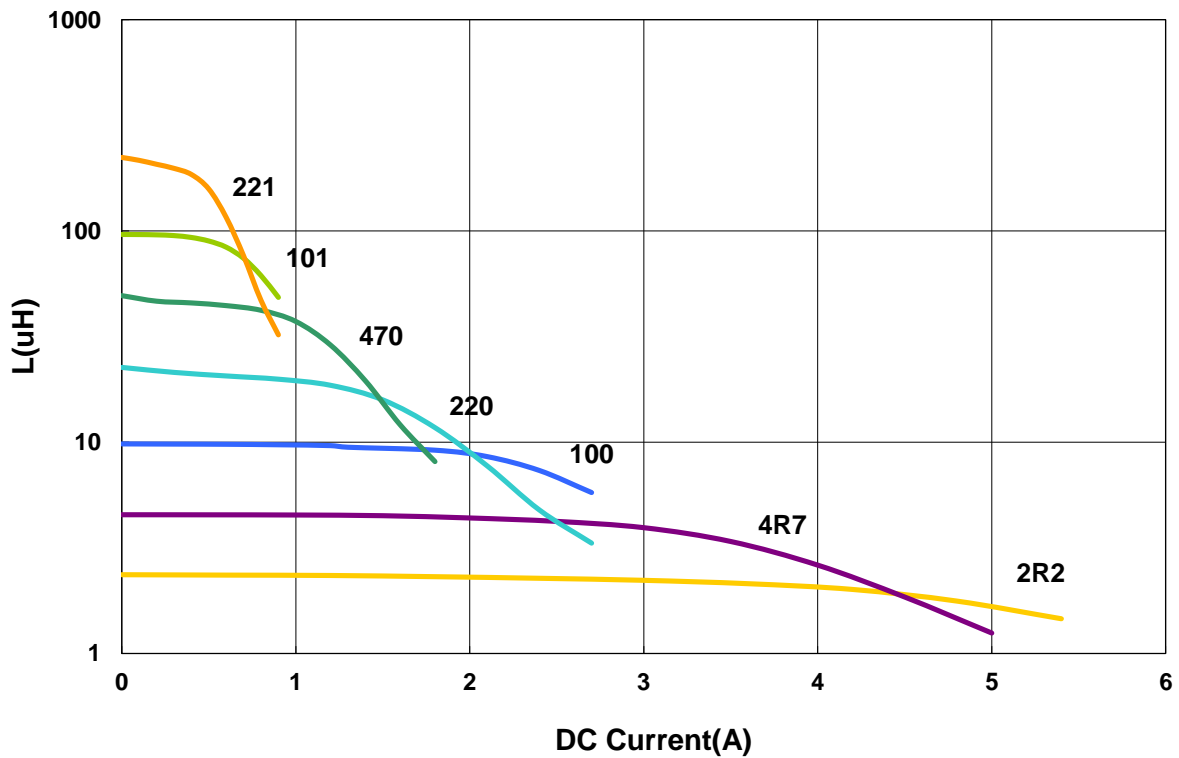
APCA00060645 Type

■ Characteristics Graph

Inductance vs. Frequency Charateristics



Inductance vs. DC Current

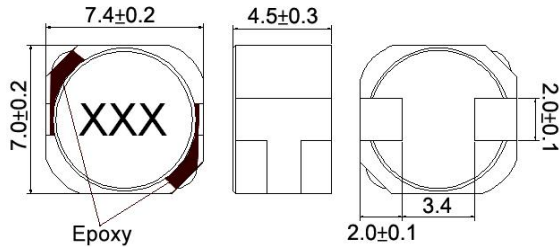


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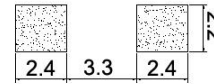
APCA00070745 Type

Dimensions



unit:mm

Recommended Land Pattern



unit:mm

Electrical Characteristics

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)Max.	Isat(A) Typ(Max)	Irms (A)	Tolerance (±%)	Marking
APCA000707451R0□00	1.0	100 kHz,1 V	0.0117	9.3(7.6)	6.5	30	1R0
APCA000707451R5□00	1.5	100 kHz,1 V	0.013	7.8(6.2)	5.4	30	1R5
APCA000707452R2□00	2.2	100 kHz,1 V	0.0169	7.3(6.0)	5.1	30	2R2
APCA000707453R3□00	3.3	100 kHz,1 V	0.0208	5.8(4.6)	4.8	30	3R3
APCA000707454R7□00	4.7	100 kHz,1 V	0.0234	4.8(4.0)	4.1	30	4R7
APCA000707456R8□00	6.8	100 kHz,1 V	0.0264	3.6(3.0)	3.9	30	6R8
APCA00070745100□00	10	100 kHz,1 V	0.0396	3.2(2.6)	3.1	20	100
APCA00070745150□00	15	100 kHz,1 V	0.066	2.4(2.0)	2.6	20	150
APCA00070745220□00	22	100 kHz,1 V	0.0828	2.1(1.6)	2.2	20	220
APCA00070745330□00	33	100 kHz,1 V	0.116	1.6(1.3)	1.8	20	330
APCA00070745470□00	47	100 kHz,1 V	0.156	1.3(1.1)	1.7	20	470
APCA00070745680□00	68	100 kHz,1 V	0.204	1.08(0.95)	1.5	20	680
APCA00070745101□00	100	100 kHz,1 V	0.312	0.9(0.8)	1.05	20	101
APCA00070745151□00	150	100 kHz,1 V	0.516	0.8(0.65)	0.95	20	151
APCA00070745221□00	220	100 kHz,1 V	0.66	0.7(0.54)	0.75	20	221
APCA00070745331□00	330	100 kHz,1 V	0.96	0.55(0.45)	0.58	20	331
APCA00070745471□00	470	100 kHz,1 V	1.44	0.45(0.37)	0.46	20	471

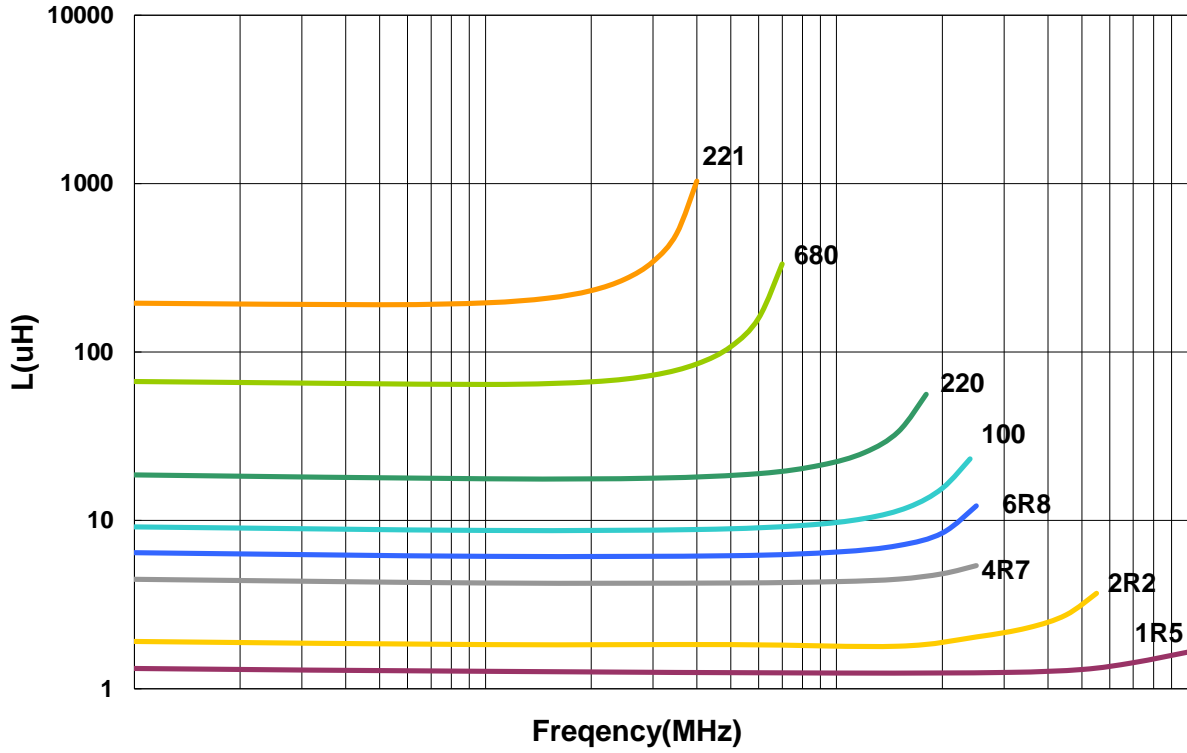
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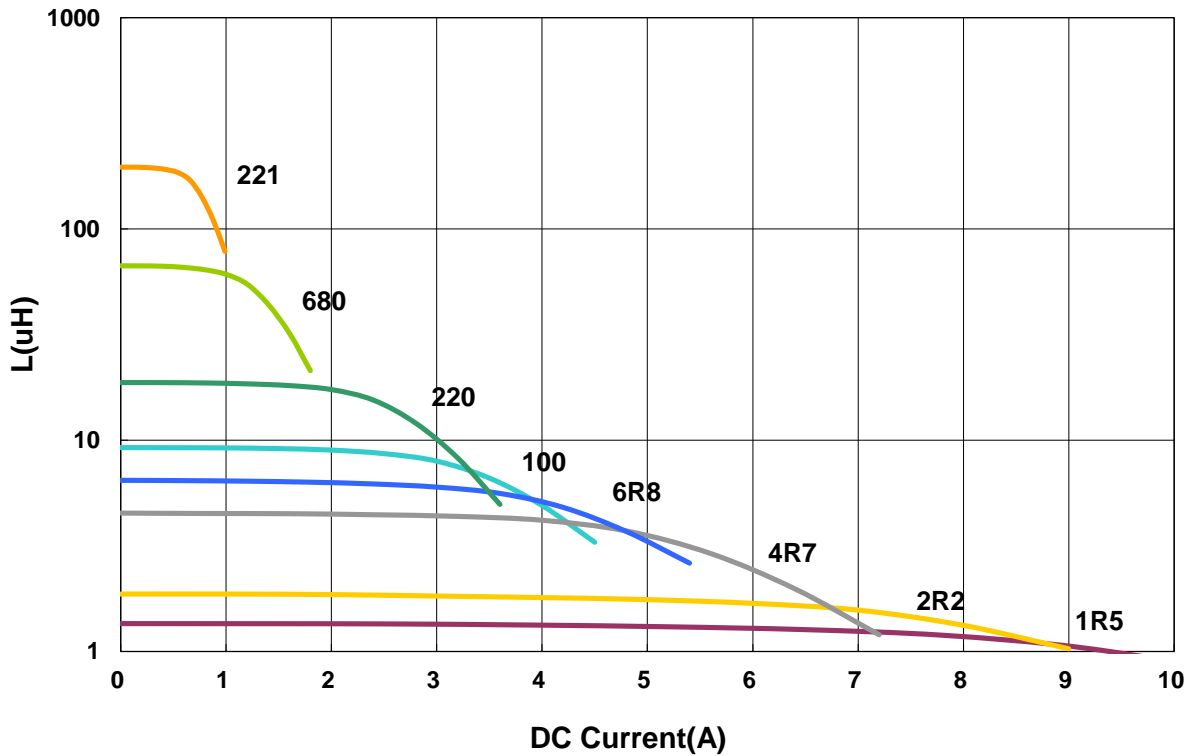
APCA00070745 Type

■ Characteristics Graph

Inductance vs. Frequency Characteristics



Inductance vs. DC Current

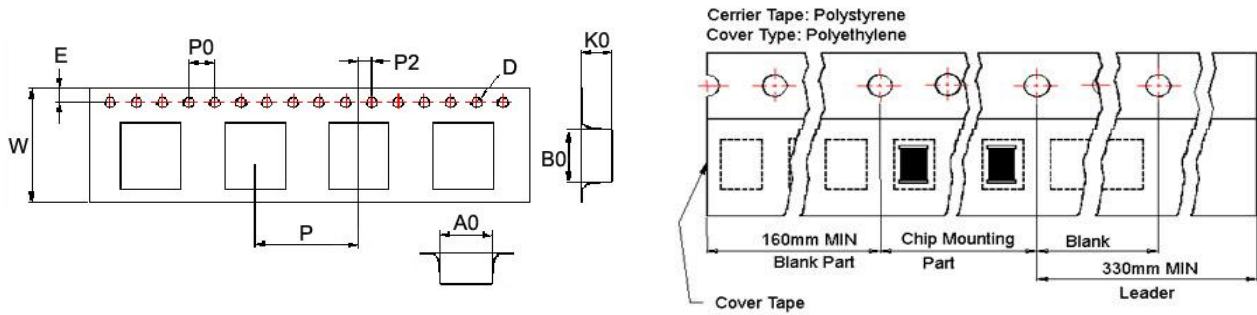


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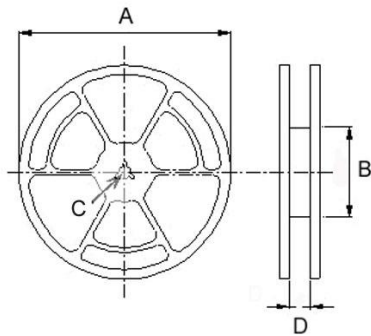
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■ Packaging

Tape Dimensions



Reel Dimensions



Dimensions in mm

TYPE	Tape Dimensions									Reel Dimensions				Quantity
	A0	B0	K0	D	E	W	P	P0	P2	A	B	C	D	PCS / REEL
APCA00060645	6.9	6.3	5	1.55	1.75	16	12	4	2	330	100	13	16	1000
APCA00070745	7.35	7.7	5	1.55	1.75	16	12	4	2	330	100	13	16	1000