

Power Inductor APCA Series

**Automotive
AEC-Q200**

RoHS Compliant
Halogen Free
REACH Compliant



Power
Circuit

Shield

Wire
Wound

Ferrite

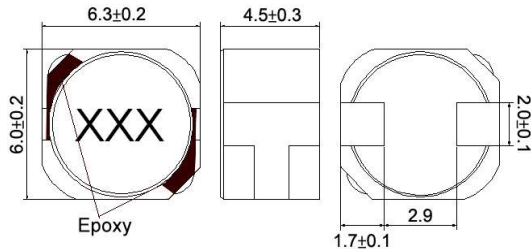
Part Numbering

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%	
			101065 10.3x10.0x6.5	101 100		
			121280 12.5x12.3x8.0			

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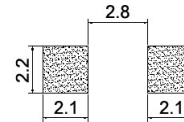
APCA00060645 Type

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

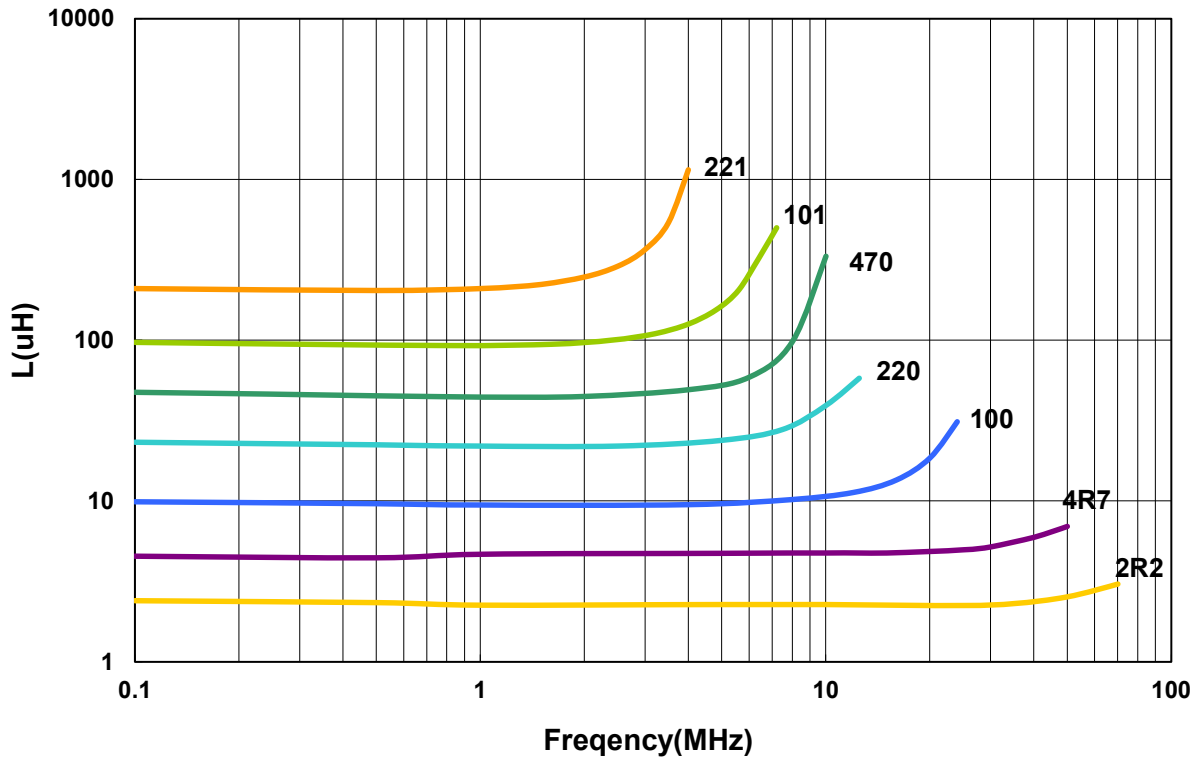
Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%

1. Operating temperature range -40°C ~ 150°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

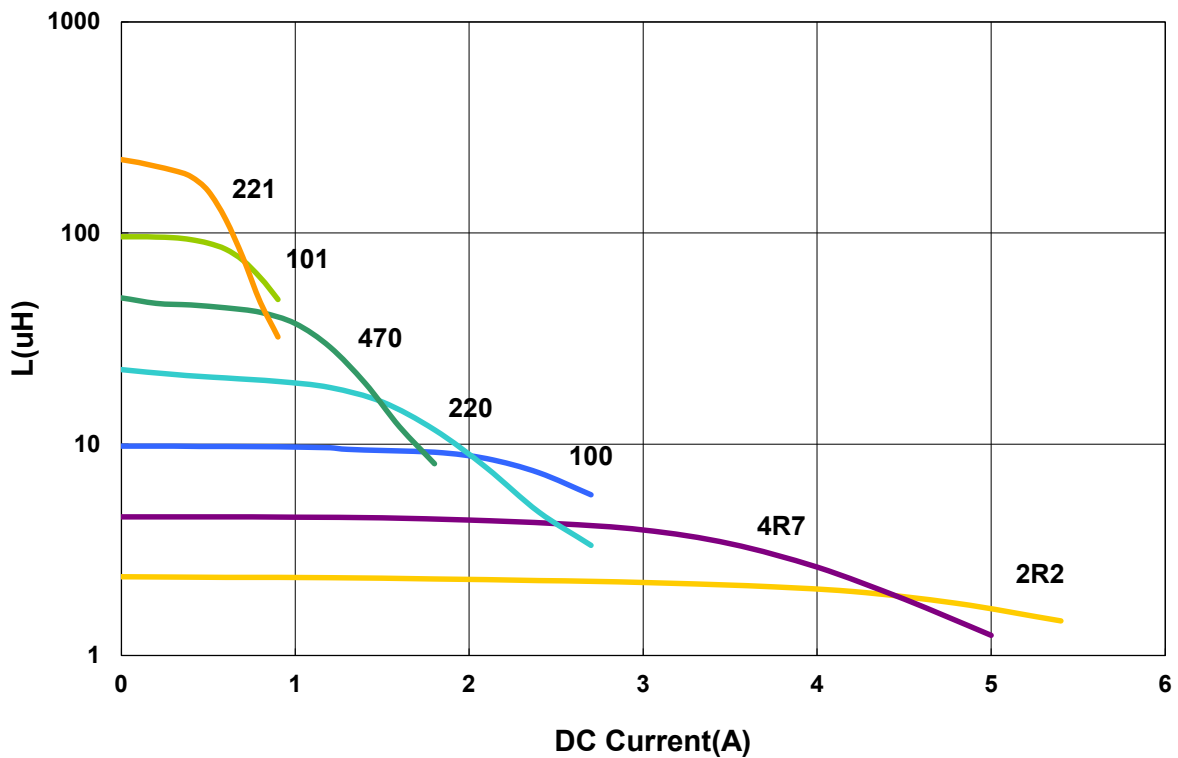
APCA00060645 Type

Characteristics Graph

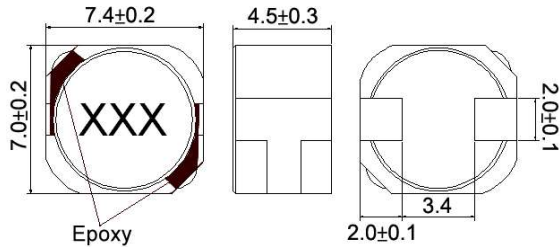
Inductance vs. Frequency Characteristics



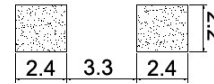
Inductance vs. DC Current



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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

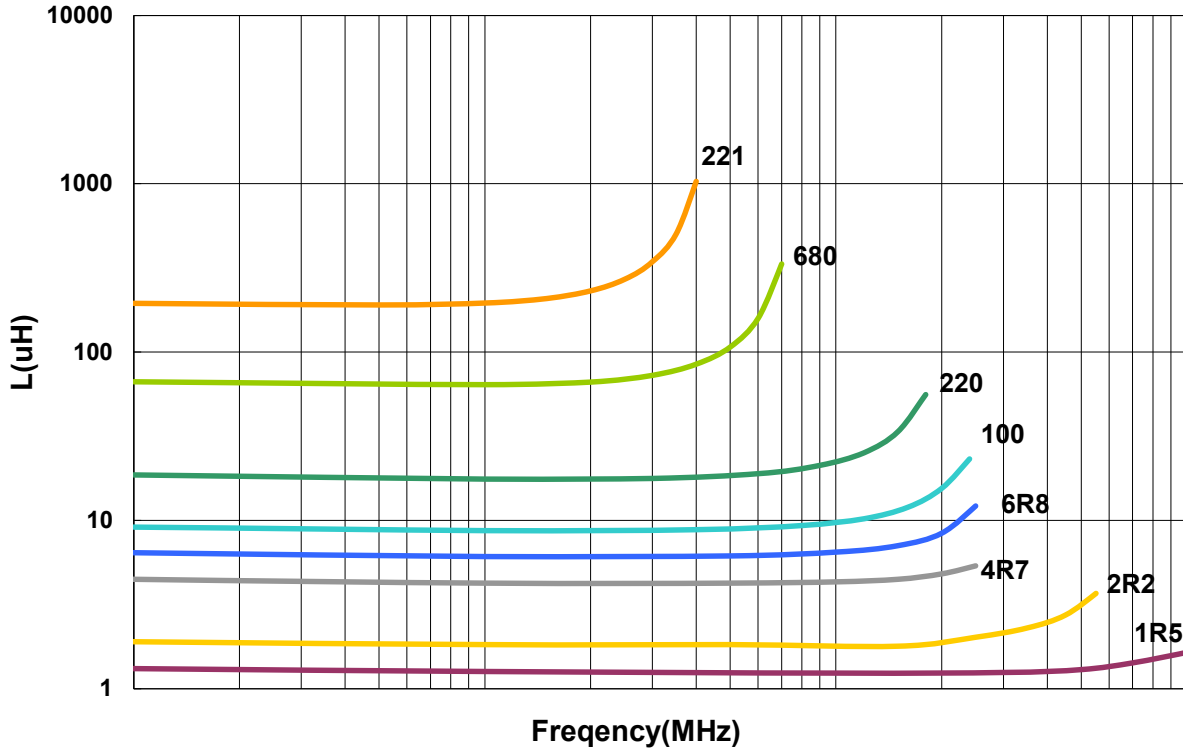
Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%

1. Operating temperature range -40°C ~ 150°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

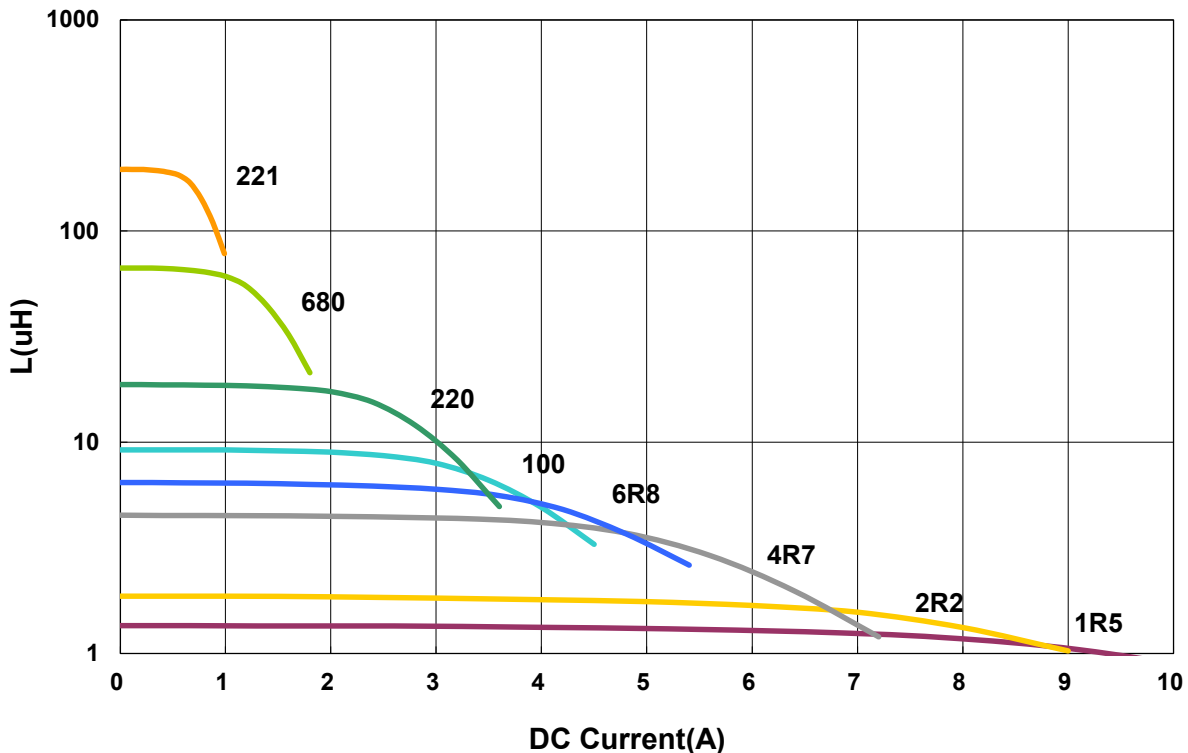
APCA00070745 Type

Characteristics Graph

Inductance vs. Frequency Characteristics



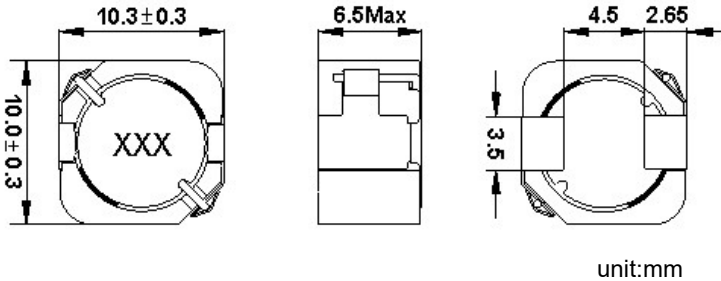
Inductance vs. DC Current



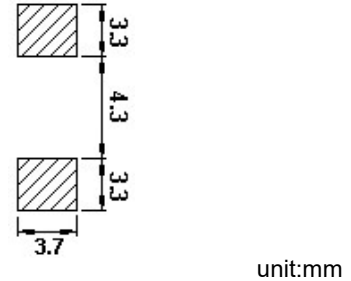
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APCA00101065 Type

■ Dimensions



■ Recommended Land Pattern



■ Electrical Characteristics

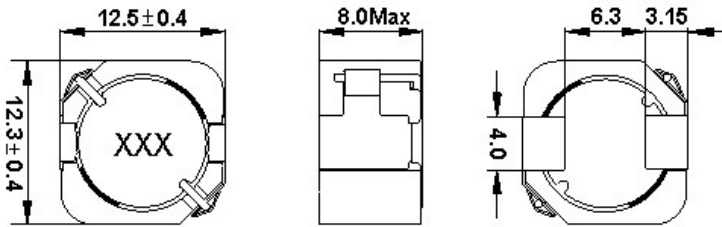
Part No.	Inductance (uH)	Test Freq.	RDC (mΩ)	Isat (A)Typ	Irms (A)Typ	Tolerance (±%)	Marking
APCA001010652R2□80	2.2	100kHz,0.25V	7.1±30%	11	8.5	30	2R2
APCA001010653R3□80	3.3	100kHz,0.25V	8.5±30%	8.4	8.1	30	3R3
APCA001010654R7□80	4.7	100kHz,0.25V	11±30%	8	7	30	4R7
APCA001010656R8□80	6.8	100kHz,0.25V	13±30%	6.5	6.6	30	6R8
APCA00101065100□80	10	100kHz,0.25V	17±20%	5	5.8	20,30	100
APCA00101065150□80	15	100kHz,0.25V	30±20%	4.4	4.1	20,30	150
APCA00101065220□80	22	100kHz,0.25V	43±20%	3.6	3.3	20,30	220
APCA00101065330□80	33	100kHz,0.25V	61±20%	3.1	2.9	20,30	330
APCA00101065470□80	47	100kHz,0.25V	74±20%	2.35	2.6	20,30	470
APCA00101065680□80	68	100kHz,0.25V	91±20%	2.05	2.4	20,30	680
APCA00101065101□80	100	100kHz,0.25V	150±20%	1.65	1.9	20,30	101
APCA00101065151□80	150	100kHz,0.25V	240±20%	1.35	1.5	20,30	151
APCA00101065221□80	220	100kHz,0.25V	350±20%	1.1	1.2	20,30	221
APCA00101065331□80	330	100kHz,0.25V	445±20%	0.9	1.1	20,30	331
APCA00101065471□80	470	100kHz,0.25V	600±20%	0.75	0.9	20,30	471

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

1. Operating temperature range $-40^{\circ}\text{C} \sim 165^{\circ}\text{C}$ (Including self - temperature rise)
2. Isat for Inductance drop 30% from its value without current
3. I rms for a 40°C temperature rise from 25°C ambient.
4. Measure Equipment:
 L: HP4284+42841A
 RDC: Chroma 16502
 Isat:WK3255BQ+ WK3265B
 I rms: WK3255BQ+ WK3265B

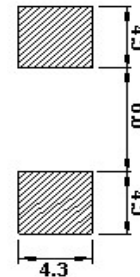
APCA00121280 Type

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
APCA001212801R5□80	1.5	100kHz,0.25V	5.5±30%	23.5	10.5	30	1R5
APCA001212802R2□80	2.2	100kHz,0.25V	6.3±30%	20	9.7	30	2R2
APCA001212803R3□80	3.3	100kHz,0.25V	7.7±30%	15	9.5	30	3R3
APCA001212804R7□80	4.7	100kHz,0.25V	8.7±30%	13	9	30	4R7
APCA001212806R8□80	6.8	100kHz,0.25V	10±20%	9.7	8.5	30	6R8
APCA00121280100□80	10	100kHz,0.25V	12±20%	9.2	7.7	20,30	100
APCA00121280150□80	15	100kHz,0.25V	24±20%	7.4	5.1	20,30	150
APCA00121280220□80	22	100kHz,0.25V	27±20%	5.8	4.5	20,30	220
APCA00121280330□80	33	100kHz,0.25V	52±20%	4.5	3.6	20,30	330
APCA00121280470□80	47	100kHz,0.25V	66±20%	4.2	3.2	20,30	470
APCA00121280680□80	68	100kHz,0.25V	90±20%	3.6	2.7	20,30	680
APCA00121280101□80	100	100kHz,0.25V	110±20%	2.9	2.6	20,30	101
APCA00121280151□80	150	100kHz,0.25V	170±20%	2.4	2.1	20,30	151
APCA00121280221□80	220	100kHz,0.25V	280±20%	1.95	1.6	20,30	221
APCA00121280331□80	330	100kHz,0.25V	410±20%	1.6	1.25	20,30	331
APCA00121280471□80	470	100kHz,0.25V	590±20%	1.3	1.1	20,30	471

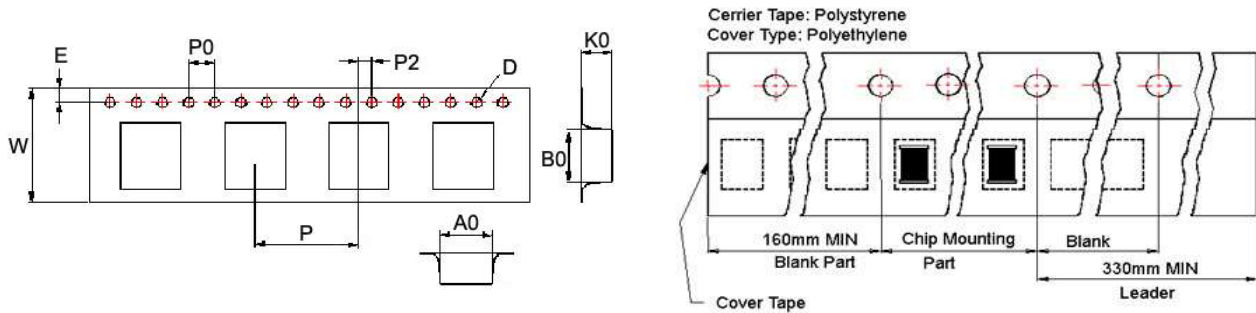
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1. Operating temperature range -40°C ~ 165°C (Including self - temperature rise)
2. Isat for Inductance drop 30% from its value without current
3. I rms for a 40°C temprature rise from 25°C ambient.
4. Measure Equipment:

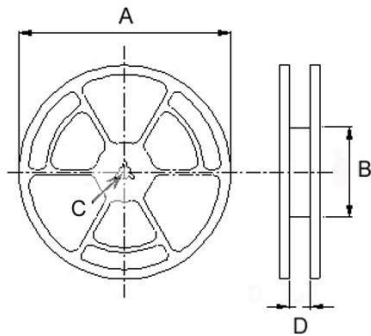
L: HP4284+42841A
RDC: Chroma 16502
Isat:WK3255BQ+ WK3265B
I rms: WK3255BQ+ WK3265B

■ Packaging

Tape Dimensions



Reel Dimensions



Dimensions in mm

TYPE	Tape Dimensions									Reel Dimensions				Quantity PCS / REEL
	A0	B0	K0	D	E	W	P	P0	P2	A	B	C	D	
APCA00060645	6.9	6.3	5	1.55	1.75	16	12	4	2	330	100	13	16	1000
APCA00070745	7.7	7.35	5	1.55	1.75	16	12	4	2	330	100	13	16	1000
APCA00101065	10.4	10.65	6.7	1.50	1.75	24	16	4	2	330	100	13	24	500
APCA00121280	12.8	13	8.7	1.50	1.75	24	16	4	2	330	100	13	24	400

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单击下面可查看定价，库存，交付和生命周期等信息

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