

DATA SHEET

INDUCTOR

Power Inductors

APCI Series

RoHS compliant & Halogen Free



Power Inductor APCI Series **Automotive
AEC-Q200**

RoHS Compliant
Halogen Free
REACH Compliant



Power
Circuit

Shield

Wire
Wound

Ferrite

Part Numbering

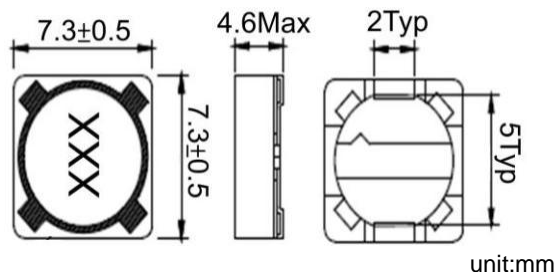
A	PCI	00	101040	1R0	M	80
Grade	Series Name	Control Code	Dimensions Code (mm)	Inductance (uH)	Tolerance	Internal Code
			070746 7.3x7.3x4.6	1R0 1	K ±10%	80
			101040 10.3x10.3x4	100 10	M ±20%	Y0
			121250 12x12x5	101 100	T ±30%	
			121260 12x12x6	102 1000		
			121280 12x12x8	103 10000		
			121210 12x12x10			

Power Inductor APCI Series

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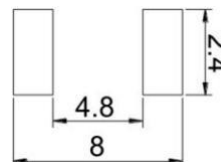
APCI00070746 - 80 Type

■ Dimensions



unit:mm

■ Recommended Land Pattern



unit:mm

■ Electrical Characteristics

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)Typ	Isat (A)Max	Irms (A)Typ	Tolerance (±%)	Marking
APCI000707461R5□80	1.5	100kHz,0.25V	0.0089	7	6.6	20,30	1R5
APCI000707461R8□80	1.8	100kHz,0.25V	0.0105	6.7	5.9	20,30	1R8
APCI000707462R2□80	2.2	100kHz,0.25V	0.0126	6.5	5	20,30	2R2
APCI000707463R3□80	3.3	100kHz,0.25V	0.0169	5.9	4.8	20,30	3R3
APCI000707464R7□80	4.7	100kHz,0.25V	0.0235	4.5	4.2	20,30	4R7
APCI000707466R8□80	6.8	100kHz,0.25V	0.0282	4.3	4	20,30	6R8
APCI00070746100□80	10	100kHz,0.25V	0.0489	3.2	3	20,30	100
APCI00070746150□80	15	100kHz,0.25V	0.0637	2.48	2.11	20,30	150
APCI00070746220□80	22	100kHz,0.25V	0.0925	2.13	1.75	20,30	220
APCI00070746270□80	27	100kHz,0.25V	0.115	1.95	1.59	20,30	270
APCI00070746330□80	33	100kHz,0.25V	0.143	1.73	1.41	20	330
APCI00070746470□80	47	100kHz,0.25V	0.216	1.41	1.15	20	470
APCI00070746560□80	56	100kHz,0.25V	0.26	1.3	1.14	20,30	560
APCI00070746680□80	68	100kHz,0.25V	0.291	1.2	1.12	20	680
APCI00070746101□80	100	100kHz,0.25V	0.383	0.99	0.86	20	101
APCI00070746151□80	150	100kHz,0.25V	0.58	0.83	0.8	20	151
APCI00070746181□80	180	100kHz,0.25V	0.77	0.8	0.73	20,30	181
APCI00070746221□80	220	100kHz,0.25V	0.92	0.78	0.65	20,30	221
APCI00070746331□80	330	100kHz,0.25V	1.41	0.54	0.45	20	331
APCI00070746471□80	470	100kHz,0.25V	2.44	0.49	0.4	20	471
APCI00070746102□80	1000	100kHz,0.25V	3.89	0.31	0.27	20	102

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

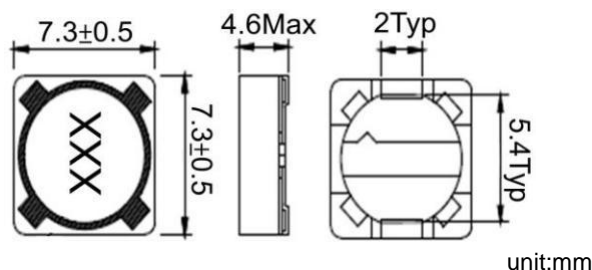
1. Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
2. Isat for Inductance drop 30% from its value without current
3. Irms for a 40°C temperature rise from 25°C ambient with current
4. Rated DC Current: The less value which is Isat or Irms
5. Measure Equipment:
 - L: HP4284A PRECISION LCR METER (or equivalent)
 - RDC: CHROMA MODEL 16502 MILLIOHMETER (or equivalent)
 - Isat:WK3255BQ+ WK3265B (or equivalent)
 - Irms: WK3255BQ+ WK3265B (or equivalent)

Power Inductor APCI Series

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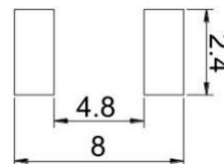
APCI00070746 - Y0 Type

■ Dimensions



unit:mm

■ Recommended Land Pattern



unit:mm

■ Electrical Characteristics

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)Max	Rated Current (A)Max	Tolerance (±%)	Marking
APCI00070746R33□Y0	0.33	100kHz,0.25V	0.0087	8.5	30	R33
APCI00070746R47□Y0	0.47	100kHz,0.25V	0.0109	8	30	R47
APCI000707461R0□Y0	1.0	100kHz,0.25V	0.0111	6.8	30	1R0
APCI000707461R2□Y0	1.2	100kHz,0.25V	0.0111	6.8	20,30	1R2
APCI000707461R5□Y0	1.5	100kHz,0.25V	0.0134	5.7	20,30	1R5
APCI000707462R2□Y0	2.2	100kHz,0.25V	0.0147	5	30	2R2
APCI000707463R3□Y0	3.3	100kHz,0.25V	0.0214	4	20,30	3R3
APCI000707464R7□Y0	4.7	100kHz,0.25V	0.031	3.4	20,30	4R7
APCI000707465R6□Y0	5.6	100kHz,0.25V	0.0335	3	20,30	5R6
APCI000707466R8□Y0	6.8	100kHz,0.25V	0.035	2.3	20,30	6R8
APCI000707468R2□Y0	8.2	100kHz,0.25V	0.042	2.1	20,30	8R2
APCI00070746100□Y0	10	100kHz,0.25V	0.049	1.84	20	100
APCI00070746120□Y0	12	100kHz,0.25V	0.058	1.71	20	120
APCI00070746150□Y0	15	100kHz,0.25V	0.081	1.47	20	150
APCI00070746180□Y0	18	100kHz,0.25V	0.091	1.31	20	180
APCI00070746220□Y0	22	100kHz,0.25V	0.11	1.23	20	220
APCI00070746270□Y0	27	100kHz,0.25V	0.15	1.12	20	270
APCI00070746330□Y0	33	100kHz,0.25V	0.2	0.96	20	330
APCI00070746390□Y0	39	100kHz,0.25V	0.23	0.91	20	390
APCI00070746470□Y0	47	100kHz,0.25V	0.26	0.88	20	470
APCI00070746560□Y0	56	100kHz,0.25V	0.35	0.75	20	560
APCI00070746680□Y0	68	100kHz,0.25V	0.38	0.69	20	680
APCI00070746820□Y0	82	100kHz,0.25V	0.43	0.61	20	820
APCI00070746101□Y0	100	100kHz,0.25V	0.61	0.6	20	101
APCI00070746121□Y0	120	100kHz,0.25V	0.66	0.52	20	121
APCI00070746151□Y0	150	100kHz,0.25V	0.88	0.46	20	151
APCI00070746181□Y0	180	100kHz,0.25V	0.98	0.42	20	181
APCI00070746221□Y0	220	100kHz,0.25V	1.17	0.36	20	221

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

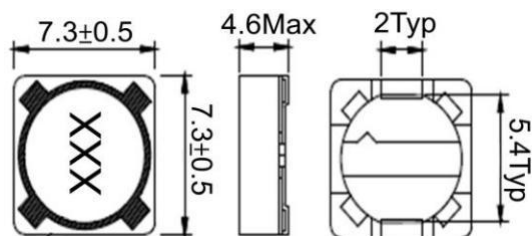
- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- Rated DC Current: Based on inductance change ($\Delta L/L_0$: drop 25% Max.) @ambient temperature 25°C and Based on temperature rise (ΔT : 40°C Typ.)
- Measure Equipment:
L: HP4284A PRECISION LCR METER (or equivalent)
RDC: CHROMA MODEL 16502 MILLIOHMMETER (or equivalent)
Isat:WK3255BQ+ WK3265B (or equivalent)
Irms: WK3255BQ+ WK3265B (or equivalent)

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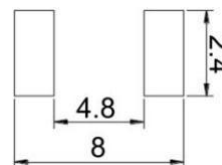
APCI00070746 - Y0 Type

■ Dimensions



unit:mm

■ Recommended Land Pattern



unit:mm

■ Electrical Characteristics

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)Max	Rated Current (A)Max	Tolerance (±%)	Marking
APCI00070746271□Y0	270	100kHz,0.25V	1.64	0.34	20	271
APCI00070746331□Y0	330	100kHz,0.25V	1.86	0.32	20	331
APCI00070746391□Y0	390	100kHz,0.25V	2.85	0.29	20	391
APCI00070746471□Y0	470	100kHz,0.25V	3.01	0.26	20	471
APCI00070746561□Y0	560	100kHz,0.25V	3.62	0.23	20	561
APCI00070746681□Y0	680	100kHz,0.25V	4.63	0.22	20	681
APCI00070746821□Y0	820	100kHz,0.25V	5.2	0.2	20	821
APCI00070746102□Y0	1000	100kHz,0.25V	6	0.18	20	102

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

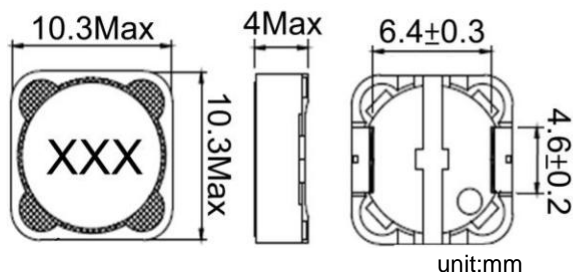
- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- Rated DC Current: Based on inductance change ($\Delta L/L_0$: drop 25% Max.) @ambient temperature 25°C and Based on temperature rise (ΔT : 40°C Typ.)
- Measure Equipment:
 - L: HP4284A PRECISION LCR METER (or equivalent)
 - RDC: CHROMA MODEL 16502 MILLIOHMMETER (or equivalent)
 - Isat:WK3255BQ+ WK3265B (or equivalent)
 - Irms: WK3255BQ+ WK3265B (or equivalent)

Power Inductor APCI Series

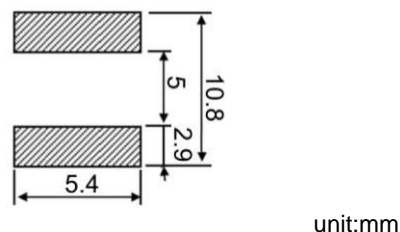
Automotive
AEC-Q200

APCI00101040 - Y0 Type

■ Dimensions



■ Recommended Land Pattern



■ Electrical Characteristics

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)Max	RDC (Ω)Typ	Isat (A)Max	Irms (A)Typ	Tolerance (±%)	Marking
APCI001010401R0□Y0	1.5	100kHz,0.1V	0.0115	0.0085	12	12	30	1R0
APCI001010401R5□Y0	1.5	100kHz,0.1V	0.0162	0.012	11	10.8	30	1R5
APCI001010401R8□Y0	1.8	100kHz,0.1V	0.0191	0.0141	10.2	10	30	1R8
APCI001010402R5□Y0	2.5	100kHz,0.1V	0.0257	0.019	8.5	8.3	30	2R5
APCI001010403R3□Y0	3.3	100kHz,0.1V	0.0365	0.027	7.6	7	30	3R3
APCI001010404R7□Y0	4.7	100kHz,0.1V	0.0392	0.029	7	6.2	20,30	4R7
APCI001010405R2□Y0	5.2	100kHz,0.1V	0.0446	0.033	6.5	6	20,30	5R2
APCI001010406R2□Y0	6.2	100kHz,0.1V	0.0513	0.038	5.6	5	20,30	6R2
APCI001010407R3□Y0	7.3	100kHz,0.1V	0.0608	0.045	4.8	4.5	20,30	7R3
APCI00101040100□Y0	10	100kHz,0.1V	0.077	0.057	4.4	3.9	20,30	100
APCI00101040150□Y0	15	100kHz,0.1V	0.117	0.087	3.6	3.3	20,30	150
APCI00101040220□Y0	22	100kHz,0.1V	0.159	0.122	3.2	2.5	20,30	220
APCI00101040330□Y0	33	100kHz,0.1V	0.242	0.186	2.5	2	20,30	330
APCI00101040470□Y0	47	100kHz,0.1V	0.358	0.275	2.1	1.65	20,30	470
APCI00101040560□Y0	56	100kHz,0.1V	0.408	0.314	1.9	1.4	20,30	560
APCI001010406Y0□Y0	68	100kHz,0.1V	0.477	0.367	1.8	1.3	20,30	680
APCI00101040101□Y0	100	100kHz,0.1V	0.698	0.537	1.45	1.1	20,30	101
APCI00101040151□Y0	150	100kHz,0.1V	1.09	0.845	1.25	0.9	20,30	151
APCI00101040221□Y0	220	100kHz,0.1V	1.586	1.22	0.9	0.8	20,30	221
APCI00101040331□Y0	330	100kHz,0.1V	2.3	1.77	0.8	0.6	20,30	331

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

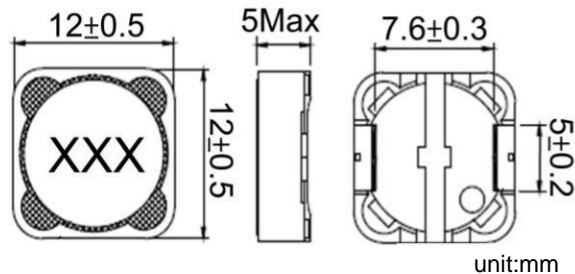
- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- Isat for Inductance drop 35% from its value without current
- Irms for a 40°C temprature rise from 25°C ambient with current
- Rated DC Current: The less value which is Isat or Irms
- Measure Equipment:
 - L: HP4284A PRECISION 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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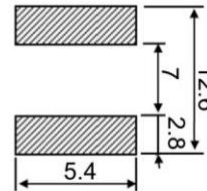
APCI00121250 - 80 Type

■ Dimensions



unit:mm

■ Recommended Land Pattern



unit:mm

■ Electrical Characteristics

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)Max	Isat (A)Max	Irms (A)Typ	Tolerance (±%)	Marking
APCI001212504R7□80	4.7	100kHz,0.25V	0.017	9	7	20,30	4R7
APCI001212505R6□80	5.6	100kHz,0.25V	0.02	8	6.1	20,30	5R6
APCI00121250100□80	10	100kHz,0.25V	0.0307	6.5	5	20,30	100
APCI00121250150□80	15	100kHz,0.25V	0.0425	5.2	4.6	20,30	150
APCI00121250180□80	18	100kHz,0.25V	0.045	4.9	4.5	20,30	180
APCI00121250220□80	22	100kHz,0.25V	0.0583	4.5	4.3	20,30	220
APCI00121250330□80	33	100kHz,0.25V	0.0845	3.6	3	20,30	330
APCI00121250470□80	47	100kHz,0.25V	0.15	3	2.5	20,30	470
APCI00121250101□80	100	100kHz,0.25V	0.308	2	1.8	20	101
APCI00121250151□80	150	100kHz,0.25V	0.53	1.7	1.6	20	151

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

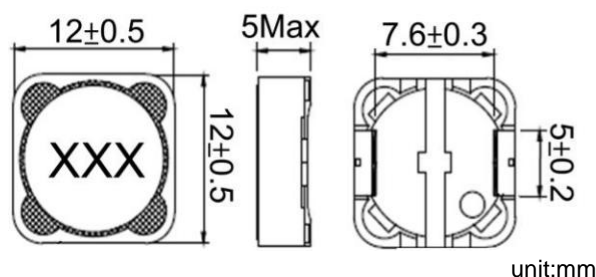
- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- Isat for Inductance drop 10% from its value without current
- Irms for a 40°C temprature rise from 25°C ambient with current
- Rated DC Current: The less value which is Isat or Irms
- Measure Equipment:
 - L: HP4284A PRECISION LCR METER (or equivalent)
 - RDC: CHROMA MODEL 16502 MILLIOHMMETER (or equivalent)
 - Isat:WK3255BQ+ WK3265B (or equivalent)
 - Irms: WK3255BQ+ WK3265B (or equivalent)

Power Inductor APCI Series

Automotive
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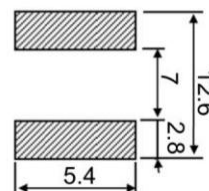
APCI00121250 - Y0 Type

■ Dimensions



unit:mm

■ Recommended Land Pattern



unit:mm

■ Electrical Characteristics

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)Max	Rated Current (A)Max	Tolerance (±%)	Marking
APCI001212503R0□Y0	3.0	100kHz,0.25V	0.015	7	20,30	3R0
APCI001212503R3□Y0	3.3	100kHz,0.25V	0.015	7	30	3R3
APCI001212503R9□Y0	3.9	100kHz,0.25V	0.015	6.5	30	3R9
APCI001212504R2□Y0	4.2	100kHz,0.25V	0.016	6.5	30	4R2
APCI001212504R7□Y0	4.7	100kHz,0.25V	0.018	5.7	20,30	4R7
APCI001212506R8□Y0	6.8	100kHz,0.25V	0.023	4.9	20,30	6R8
APCI001212508R2□Y0	8.2	100kHz,0.25V	0.026	4.6	30	8R2
APCI00121250100□Y0	10	100kHz,0.25V	0.028	4.5	20,30	100
APCI00121250120□Y0	12	100kHz,0.25V	0.038	4	20,30	120
APCI00121250150□Y0	15	100kHz,0.25V	0.05	3.2	20,30	150
APCI00121250180□Y0	18	100kHz,0.25V	0.057	3.1	20,30	180
APCI00121250220□Y0	22	100kHz,0.25V	0.066	2.9	20,30	220
APCI00121250270□Y0	27	100kHz,0.25V	0.08	2.8	20,30	270
APCI00121250330□Y0	33	100kHz,0.25V	0.097	2.7	20,30	330
APCI00121250390□Y0	39	100kHz,0.25V	0.132	2.1	20,30	390
APCI00121250470□Y0	47	100kHz,0.25V	0.15	1.9	20,30	470
APCI00121250560□Y0	56	100kHz,0.25V	0.19	1.8	20,30	560
APCI00121250680□Y0	68	100kHz,0.25V	0.22	1.5	20,30	680
APCI00121250820□Y0	82	100kHz,0.25V	0.26	1.3	20,30	820
APCI00121250101□Y0	100	100kHz,0.25V	0.308	1.2	20,30	101
APCI00121250121□Y0	120	100kHz,0.25V	0.38	1.1	20,30	121
APCI00121250151□Y0	150	100kHz,0.25V	0.53	0.95	20,30	151
APCI00121250181□Y0	180	100kHz,0.25V	0.62	0.85	20,30	181
APCI00121250221□Y0	220	100kHz,0.25V	0.7	0.8	20,30	221
APCI00121250271□Y0	270	100kHz,0.25V	0.87	0.6	20,30	271
APCI00121250331□Y0	330	100kHz,0.25V	0.99	0.5	20,30	331

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

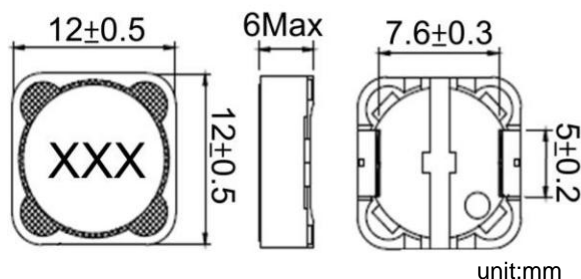
- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- Rated DC Current: Based on inductance change ($\Delta L/L_0$: drop 10% Max.) @ambient temperature 25°C and Based on temperature rise (ΔT : 40°C Typ.)
- Measure Equipment:
 - L: HP4284A PRECISION LCR METER (or equivalent)
 - RDC: CHROMA MODEL 16502 MILLIOHMMETER (or equivalent)
 - Isat:WK3255BQ+ WK3265B (or equivalent)
 - Irms: WK3255BQ+ WK3265B (or equivalent)

Power Inductor APCI Series

Automotive
AEC-Q200

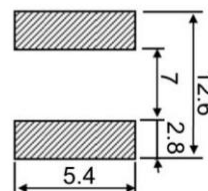
APCI00121260 - 80 Type

■ Dimensions



unit:mm

■ Recommended Land Pattern



unit:mm

■ Electrical Characteristics

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)Max	Isat (A)Max	Irms (A)Typ	Tolerance (±%)	Marking
APCI001212602R2□80	2.2	100kHz,0.25V	0.0082	13.5	12.5	30	2R2
APCI001212602R4□80	2.4	100kHz,0.25V	0.0082	13.5	12.5	20,30	2R4
APCI001212602R7□80	2.7	100kHz,0.25V	0.0093	13	10.5	20,30	2R7
APCI001212603R3□80	3.3	100kHz,0.25V	0.114	12	9	20,30	3R3
APCI001212604R7□80	4.7	100kHz,0.25V	0.013	10	8	20,30	4R7
APCI001212605R6□80	5.6	100kHz,0.25V	0.014	9	7	20,30	5R6
APCI001212606R8□80	6.8	100kHz,0.25V	0.015	8	7	20,30	6R8
APCI001212608R2□80	8.2	100kHz,0.25V	0.022	7.5	6.5	20,30	8R2
APCI00121260100□80	10	100kHz,0.25V	0.0265	7.2	5.6	20,30	100
APCI00121260150□80	15	100kHz,0.25V	0.0319	5.8	5	20,30	150
APCI00121260220□80	22	100kHz,0.25V	0.0463	4.5	4	20,30	220
APCI00121260330□80	33	100kHz,0.25V	0.0663	4	3.5	20,30	330
APCI00121260470□80	47	100kHz,0.25V	0.0925	3.24	2.9	20,30	470
APCI00121260680□80	68	100kHz,0.25V	0.13	2.7	2.5	20,30	680
APCI00121260101□80	100	100kHz,0.25V	0.17	2	2.2	20	101
APCI00121260151□80	150	100kHz,0.25V	0.26	1.8	1.7	20,30	151
APCI00121260221□80	220	100kHz,0.25V	0.43	1.6	1.39	20	221
APCI00121260271□80	270	100kHz,0.25V	0.45	1.5	1.32	20	271
APCI00121260152□80	1500	100kHz,0.25V	2	0.58	0.6	20	152
APCI00121260222□80	2200	100kHz,0.25V	2.9	0.49	0.5	20	222

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

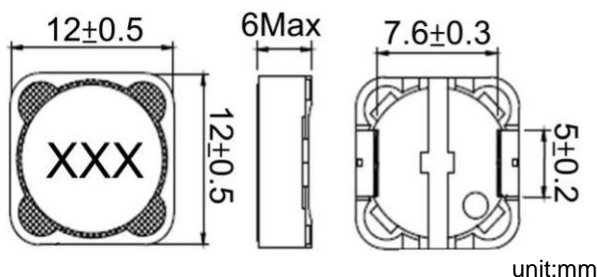
- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- Isat for Inductance drop 10% from its value without current
- Irms for a 40°C temperature rise from 25°C ambient with current
- Rated DC Current: The less value which is Isat or Irms
- Measure Equipment:
 - L: HP4284A PRECISION LCR METER (or equivalent)
 - RDC: CHROMA MODEL 16502 MILLIOHMMETER (or equivalent)
 - Isat:WK3255BQ+ WK3265B (or equivalent)
 - Irms: WK3255BQ+ WK3265B (or equivalent)

Power Inductor APCI Series

Automotive
AEC-Q200

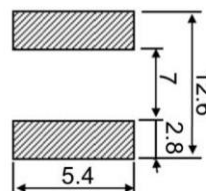
APCI00121260 - Y0 Type

■ Dimensions



unit:mm

■ Recommended Land Pattern



unit:mm

■ Electrical Characteristics

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)Max	Rated Current (A)Max	Tolerance (±%)	Marking
APCI001212602R4□Y0	2.4	100kHz,0.25V	0.015	6.5	30	2R4
APCI001212602R7□Y0	2.7	100kHz,0.25V	0.015	6.5	30	2R7
APCI001212603R3□Y0	3.3	100kHz,0.25V	0.017	6	20,30	3R3
APCI001212603R9□Y0	3.9	100kHz,0.25V	0.018	5.7	30	3R9
APCI001212604R7□Y0	4.7	100kHz,0.25V	0.02	5	20,30	4R7
APCI001212606R8□Y0	6.8	100kHz,0.25V	0.023	4.3	20,30	6R8
APCI001212608R2□Y0	8.2	100kHz,0.25V	0.024	4.2	20,30	8R2
APCI00121260100□Y0	10	100kHz,0.25V	0.025	4	20,30	100
APCI00121260120□Y0	12	100kHz,0.25V	0.027	3.5	20,30	120
APCI00121260150□Y0	15	100kHz,0.25V	0.03	3.3	20,30	150
APCI00121260180□Y0	18	100kHz,0.25V	0.034	3	20,30	180
APCI00121260220□Y0	22	100kHz,0.25V	0.036	2.8	20,30	220
APCI00121260270□Y0	27	100kHz,0.25V	0.051	2.3	20,30	270
APCI00121260330□Y0	33	100kHz,0.25V	0.057	2.1	20,30	330
APCI00121260390□Y0	39	100kHz,0.25V	0.068	2	20,30	390
APCI00121260470□Y0	47	100kHz,0.25V	0.075	1.8	20,30	470
APCI00121260560□Y0	56	100kHz,0.25V	0.11	1.7	20,30	560
APCI00121260680□Y0	68	100kHz,0.25V	0.12	1.5	20,30	680
APCI00121260820□Y0	82	100kHz,0.25V	0.14	1.4	20,30	820
APCI00121260101□Y0	100	100kHz,0.25V	0.16	1.3	10,20	101
APCI00121260121□Y0	120	100kHz,0.25V	0.17	1.1	10,20	121
APCI00121260151□Y0	150	100kHz,0.25V	0.23	1	10,20	151
APCI00121260181□Y0	180	100kHz,0.25V	0.29	0.9	10,20	181
APCI00121260221□Y0	220	100kHz,0.25V	0.4	0.8	10,20	221
APCI00121260271□Y0	270	100kHz,0.25V	0.46	0.75	10,20	271
APCI00121260331□Y0	330	100kHz,0.25V	0.51	0.68	10,20	331
APCI00121260391□Y0	390	100kHz,0.25V	0.69	0.65	10,20	391
APCI00121260471□Y0	470	100kHz,0.25V	0.77	0.58	10,20	471
APCI00121260561□Y0	560	100kHz,0.25V	0.86	0.54	10,20	561
APCI00121260681□Y0	680	100kHz,0.25V	1.2	0.48	10,20	681
APCI00121260821□Y0	820	100kHz,0.25V	1.34	0.43	10,20	821
APCI00121260102□Y0	1000	100kHz,0.25V	1.53	0.4	10,20	102

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

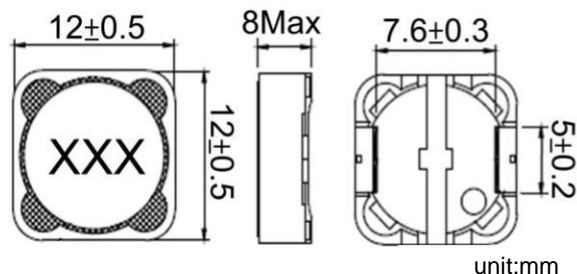
- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- Rated DC Current: Based on inductance change (ΔL/Lo : drop 10% Max.) @ambient temperature 25°C and Based on temperature rise (ΔT : 40°C Typ.)
- Measure Equipment:
L: HP4284A PRECISION LCR METER (or equivalent)
RDC: CHROMA MODEL 16502 MILLIOHMETER (or equivalent)
Isat:WK3255BQ+ WK3265B (or equivalent)
Irms: WK3255BQ+ WK3265B (or equivalent)

Power Inductor APCI Series

Automotive
AEC-Q200

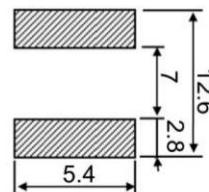
APCI00121280 - 80 Type

■ Dimensions



unit:mm

■ Recommended Land Pattern



unit:mm

■ Electrical Characteristics

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)Max	Isat (A)Max	Irms (A)Typ	Tolerance (±%)	Marking
APCI001212801R0□80	1.0	100kHz,0.25V	0.0055	18	15	30	1R0
APCI001212802R2□80	2.2	100kHz,0.25V	0.0062	16	13	30	2R2
APCI001212803R3□80	3.3	100kHz,0.25V	0.0135	13.5	7.5	30	3R3
APCI001212804R5□80	4.5	100kHz,0.25V	0.0158	11.5	6.8	20,30	4R5
APCI001212804R7□80	4.7	100kHz,0.25V	0.0158	11.5	6.8	20,30	4R7
APCI001212805R6□80	5.6	100kHz,0.25V	0.0168	10.5	6.7	20,30	5R6
APCI001212806R5□80	6.5	100kHz,0.25V	0.0176	9.5	6.6	20,30	6R5
APCI001212806R8□80	6.8	100kHz,0.25V	0.0176	9.5	6.6	20,30	6R8
APCI00121280100□80	10	100kHz,0.25V	0.0216	7.8	5.4	20,30	100
APCI00121280120□80	12	100kHz,0.25V	0.0243	7.3	4.9	20,30	120
APCI00121280130□80	13	100kHz,0.25V	0.0243	7.3	4.9	20,30	130
APCI00121280150□80	15	100kHz,0.25V	0.027	6.5	4.5	20,30	150
APCI00121280180□80	18	100kHz,0.25V	0.0392	6	3.9	20,30	180
APCI00121280220□80	22	100kHz,0.25V	0.0432	5.3	3.6	20,30	220
APCI00121280270□80	27	100kHz,0.25V	0.0531	4.8	3.3	20,30	270
APCI00121280330□80	33	100kHz,0.25V	0.0648	4.3	3	20,30	330
APCI00121280390□80	39	100kHz,0.25V	0.071	4.1	2.8	20,30	390
APCI00121280470□80	47	100kHz,0.25V	0.1	3.8	2.5	20,30	470
APCI00121280560□80	56	100kHz,0.25V	0.11	3.4	2.35	20,30	560
APCI00121280680□80	68	100kHz,0.25V	0.14	3.1	2.1	20,30	680
APCI00121280820□80	82	100kHz,0.25V	0.16	2.7	1.95	20,30	820
APCI00121280101□80	100	100kHz,0.25V	0.22	2.5	1.7	20,30	101
APCI00121280121□80	120	100kHz,0.25V	0.25	2.3	1.6	20,30	121
APCI00121280151□80	150	100kHz,0.25V	0.28	2	1.42	20,30	151
APCI00121280181□80	180	100kHz,0.25V	0.35	1.9	1.3	20,30	181
APCI00121280201□80	200	100kHz,0.25V	0.37	1.8	1.23	20,30	201
APCI00121280221□80	220	100kHz,0.25V	0.39	1.7	1.16	20,30	221
APCI00121280271□80	270	100kHz,0.25V	0.51	1.6	1.06	20,30	271

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

1. Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)

2. Isat for Inductance drop 10% from its value without current

3. I rms for a 40°C temperature rise from 25°C ambient with current

4. Rated DC Current: The less value which is Isat or I rms

5. Measure Equipment:

L: HP4284A PRECISION LCR METER (or equivalent)

RDC: CHROMA MODEL 16502 MILLIOHMETER (or equivalent)

Isat:WK3255BQ+ WK3265B (or equivalent)

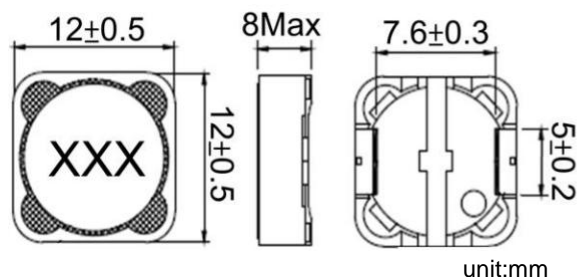
I rms: WK3255BQ+ WK3265B (or equivalent)

Power Inductor APCI Series

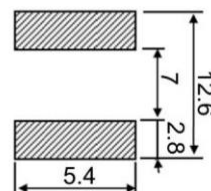
Automotive
AEC-Q200

APCI00121280 - 80 Type

■ Dimensions



■ Recommended Land Pattern



unit:mm

■ Electrical Characteristics

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)Max	Isat (A)Max	Irms (A)Typ	Tolerance (±%)	Marking
APCI00121280281□80	280	100kHz,0.25V	0.51	1.6	1.06	20,30	281
APCI00121280331□80	330	100kHz,0.25V	0.64	1.4	0.95	20,30	331
APCI00121280391□80	390	100kHz,0.25V	0.7	1.3	0.88	20,30	391
APCI00121280471□80	470	100kHz,0.25V	0.98	1.1	0.79	20,30	471
APCI00121280561□80	560	100kHz,0.25V	1.03	1.05	0.75	20,30	561
APCI00121280681□80	680	100kHz,0.25V	1.1	1	0.7	20	681
APCI00121280801□80	800	100kHz,0.25V	1.29	0.9	0.67	20	801
APCI00121280821□80	820	100kHz,0.25V	1.29	0.9	0.67	20	821
APCI00121280102□80	1000	100kHz,0.25V	1.53	0.85	0.64	20	102
APCI00121280112□80	1100	100kHz,0.25V	1.66	0.82	0.62	20	112
APCI00121280122□80	1200	100kHz,0.25V	1.8	0.8	0.6	20	122
APCI00121280132□80	1300	100kHz,0.25V	1.93	0.76	0.58	20	132
APCI00121280142□80	1400	100kHz,0.25V	2.1	0.73	0.56	10,20	142
APCI00121280152□80	1500	100kHz,0.25V	2.2	0.7	0.55	20	152
APCI00121280182□80	1800	10kHz,0.25V	2.5	0.65	0.5	20	182
APCI00121280202□80	2000	10kHz,0.25V	2.7	0.62	0.48	20	202
APCI00121280222□80	2200	10kHz,0.25V	2.9	0.59	0.46	20	222
APCI00121280242□80	2400	10kHz,0.25V	3.2	0.58	0.45	20	242
APCI00121280282□80	2800	10kHz,0.25V	3.6	0.53	0.42	20	282
APCI00121280332□80	3300	10kHz,0.25V	4.1	0.48	0.39	20	332
APCI00121280392□80	3900	10kHz,0.25V	4.7	0.45	0.37	20	392
APCI00121280472□80	4700	10kHz,0.25V	5.3	0.42	0.36	20	472
APCI00121280622□80	6200	10kHz,0.25V	7.1	0.33	0.3	10,20	622
APCI00121280682□80	6800	10kHz,0.25V	7.2	0.3	0.28	20	682
APCI00121280103□80	10000	10kHz,0.25V	14.2	0.15	0.15	20	103

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

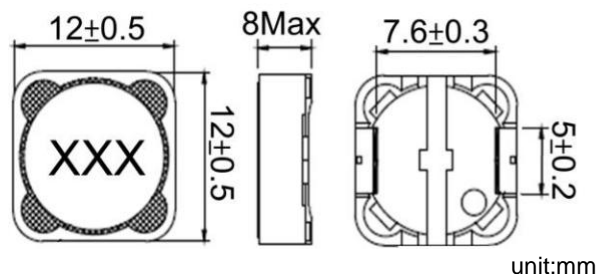
- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- Isat for Inductance drop 10% from its value without current
- Irms for a 40°C temprature rise from 25°C ambient with current
- Rated DC Current: The less value which is Isat or Irms
- Measure Equipment:
 - L: HP4284A PRECISION LCR METER (or equivalent)
 - RDC: CHROMA MODEL 16502 MILLIOHMMETER (or equivalent)
 - Isat:WK3255BQ+ WK3265B (or equivalent)
 - Irms: WK3255BQ+ WK3265B (or equivalent)

Power Inductor APCI Series

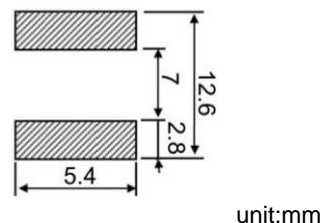
Automotive
AEC-Q200

APCI00121280 - Y0 Type

■ Dimensions



■ Recommended Land Pattern



■ Electrical Characteristics

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)Max	Rated Current (A)Max	Tolerance (±%)	Marking
APCI001212801R0□Y0	1.0	100kHz,0.25V	0.007	9.8	30	1R0
APCI001212801R2□Y0	1.2	100kHz,0.25V	0.007	9.8	30	1R2
APCI001212802R2□Y0	2.2	100kHz,0.25V	0.0115	8	20,30	2R2
APCI001212802R4□Y0	2.4	100kHz,0.25V	0.0115	8	30	2R4
APCI001212802R5□Y0	2.5	100kHz,0.25V	0.0115	8	30	2R5
APCI001212803R3□Y0	3.3	100kHz,0.25V	0.0135	7.5	20,30	3R3
APCI001212803R5□Y0	3.5	100kHz,0.25V	0.0135	7.5	30	3R5
APCI001212804R6□Y0	4.6	100kHz,0.25V	0.0158	6.8	30	4R6
APCI001212804R7□Y0	4.7	100kHz,0.25V	0.0158	6.8	30	4R7
APCI001212805R6□Y0	5.6	100kHz,0.25V	0.0176	6.6	20,30	5R6
APCI001212806R1□Y0	6.1	100kHz,0.25V	0.0176	6.6	30	6R1
APCI001212806R4□Y0	6.4	100kHz,0.25V	0.019	6.3	30	6R4
APCI001212806R8□Y0	6.8	100kHz,0.25V	0.019	6.3	30	6R8
APCI001212807R6□Y0	7.6	100kHz,0.25V	0.02	5.9	30	7R6
APCI00121280100□Y0	10	100kHz,0.25V	0.0216	5.4	20,30	100
APCI00121280120□Y0	12	100kHz,0.25V	0.0243	4.9	20,30	120
APCI00121280150□Y0	15	100kHz,0.25V	0.027	4.5	20,30	150
APCI00121280180□Y0	18	100kHz,0.25V	0.0392	3.9	20,30	180
APCI00121280220□Y0	22	100kHz,0.25V	0.0432	3.6	20,30	220
APCI00121280270□Y0	27	100kHz,0.25V	0.0459	3.4	20,30	270
APCI00121280330□Y0	33	100kHz,0.25V	0.0648	3	20,30	330
APCI00121280390□Y0	39	100kHz,0.25V	0.0729	2.75	20,30	390
APCI00121280470□Y0	47	100kHz,0.25V	0.1	2.5	20,30	470
APCI00121280560□Y0	56	100kHz,0.25V	0.11	2.35	20,30	560
APCI00121280680□Y0	68	100kHz,0.25V	0.14	2.1	20,30	680
APCI00121280750□Y0	75	100kHz,0.25V	0.15	2	20,30	750
APCI00121280820□Y0	82	100kHz,0.25V	0.16	1.95	20,30	820

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

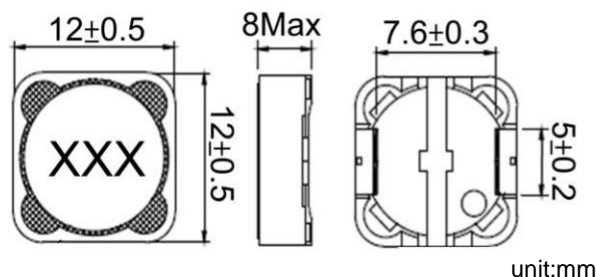
- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- Rated DC Current: Based on inductance change ($\Delta L/L_0$: drop 10% Max.) @ambient temperature 25°C and Based on temperature rise (ΔT : 40°C Typ.)
- Measure Equipment:
 - L: HP4284A PRECISION LCR METER (or equivalent)
 - RDC: CHROMA MODEL 16502 MILLIOHM METER (or equivalent)
 - Isat:WK3255BQ+ WK3265B (or equivalent)
 - Irms: WK3255BQ+ WK3265B (or equivalent)

Power Inductor APCI Series

Automotive
AEC-Q200

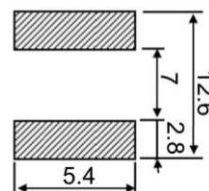
APCI00121280 - Y0 Type

■ Dimensions



unit:mm

■ Recommended Land Pattern



unit:mm

■ Electrical Characteristics

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)Max	Rated Current (A)Max	Tolerance (±%)	Marking
APCI00121280101□Y0	100	100kHz,0.25V	0.22	1.7	10,20	101
APCI00121280121□Y0	120	100kHz,0.25V	0.25	1.6	10,20	121
APCI00121280151□Y0	150	100kHz,0.25V	0.28	1.42	10,20	151
APCI00121280181□Y0	180	100kHz,0.25V	0.35	1.3	10,20	181
APCI00121280201□Y0	200	100kHz,0.25V	0.39	1.16	20	201
APCI00121280221□Y0	220	100kHz,0.25V	0.39	1.16	10,20	221
APCI00121280271□Y0	270	100kHz,0.25V	0.56	1.06	10,20	271
APCI00121280331□Y0	330	100kHz,0.25V	0.64	0.95	10,20	331
APCI00121280391□Y0	390	100kHz,0.25V	0.7	0.88	10,20	391
APCI00121280471□Y0	470	100kHz,0.25V	0.98	0.79	10,20	471
APCI00121280561□Y0	560	100kHz,0.25V	1.07	0.73	10,20	561
APCI00121280681□Y0	680	100kHz,0.25V	1.46	0.67	10,20	681
APCI00121280821□Y0	820	100kHz,0.25V	1.64	0.6	10,20	821
APCI00121280102□Y0	1000	100kHz,0.25V	1.82	0.55	10,20	102
APCI00121280152□Y0	1500	10kHz,0.25V	2.48	0.45	10,20	152
APCI00121280202□Y0	2000	10kHz,0.25V	3	0.42	10,20	202
APCI00121280242□Y0	2400	10kHz,0.25V	3.5	0.4	10,20	242
APCI00121280252□Y0	2500	10kHz,0.25V	3.5	0.4	10,20	252
APCI00121280332□Y0	3300	10kHz,0.25V	5.2	0.35	10,20	332
APCI00121280472□Y0	4700	10kHz,0.25V	5.7	0.3	10,20	472
APCI00121280103□Y0	10000	10kHz,0.25V	19.2	0.2	10	103

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

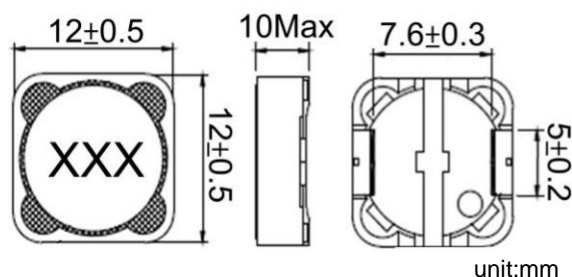
- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- Rated DC Current: Based on inductance change ($\Delta L/L_0$: drop 10% Max.) @ambient temperature 25°C and Based on temperature rise (ΔT : 40°C Typ.)
- Measure Equipment:
 - L: HP4284A PRECISION LCR METER (or equivalent)
 - RDC: CHROMA MODEL 16502 MILLIOHMMETER (or equivalent)
 - Isat:WK3255BQ+ WK3265B (or equivalent)
 - Irms: WK3255BQ+ WK3265B (or equivalent)

Power Inductor APCI Series

Automotive
AEC-Q200

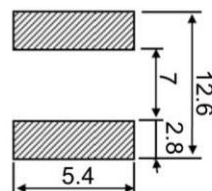
APCI00121210 - 80 Type

■ Dimensions



unit:mm

■ Recommended Land Pattern



unit:mm

■ Electrical Characteristics

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)Max	Isat (A)Max	Irms (A)Typ	Tolerance (±%)	Marking
APCI001212106R8□80	6.8	100kHz,0.25V	0.014	12.8	8.4	20,30	6R8
APCI00121210100□80	10	100kHz,0.25V	0.0183	11.5	7.5	20,30	100
APCI00121210150□80	15	100kHz,0.25V	0.028	8.6	6	20,30	150
APCI00121210330□80	33	100kHz,0.25V	0.045	5.5	4.2	20	330
APCI00121210470□80	47	100kHz,0.25V	0.06	4.5	3.8	20	470
APCI00121210560□80	56	100kHz,0.25V	0.07	4	3.4	20	560
APCI00121210680□80	68	100kHz,0.25V	0.0885	3.6	3.2	20	680
APCI00121210101□80	100	100kHz,0.25V	0.11	3.1	2.5	20	101
APCI00121210221□80	220	100kHz,0.25V	0.27	2.5	1.8	20	221
APCI00121210271□80	270	100kHz,0.25V	0.33	2.1	1.6	20	271
APCI00121210301□80	300	100kHz,0.25V	0.34	1.8	1.45	20	301
APCI00121210331□80	330	100kHz,0.25V	0.34	1.8	1.45	20	331
APCI00121210681□80	680	100kHz,0.25V	0.675	1.6	1.25	20,30	681
APCI00121210821□80	820	100kHz,0.25V	1	1.1	0.85	20	821

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. I rms for a 40°C temprature rise from 25°C ambient with current
4. Rated DC Current: The less value which is Isat or I rms
5. Measure Equipment:

L: HP4284A PRECISION LCR METER (or equivalent)

RDC: CHROMA MODEL 16502 MILLIOHMETER (or equivalent)

Isat:WK3255BQ+ WK3265B (or equivalent)

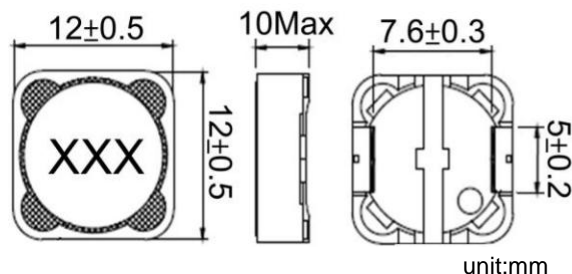
I rms: WK3255BQ+ WK3265B (or equivalent)

Power Inductor APCI Series

Automotive
AEC-Q200

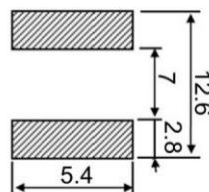
APCI00121210 - Y0 Type

■ Dimensions



unit:mm

■ Recommended Land Pattern



unit:mm

■ Electrical Characteristics

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)Max	Isat (A)Max	Irms (A)Typ	Tolerance (±%)	Marking
APCI001212101R0□Y0	1.0	100kHz,0.1V	0.0055	19.9	11.6	30	1R0
APCI001212101R8□Y0	1.8	100kHz,0.1V	0.0065	13.4	11	30	1R8
APCI001212102R0□Y0	2.0	100kHz,0.1V	0.007	12.9	10.7	30	2R0
APCI001212102R2□Y0	2.2	100kHz,0.1V	0.007	12.9	10.7	20,30	2R2
APCI001212102R5□Y0	2.5	100kHz,0.1V	0.008	12.16	10.3	30	2R5
APCI001212103R5□Y0	3.5	100kHz,0.1V	0.0097	12	8.7	30	3R5
APCI001212103R6□Y0	3.6	100kHz,0.1V	0.01	12	8.7	30	3R6
APCI001212104R7□Y0	4.7	100kHz,0.1V	0.011	11	8.4	20,30	4R7
APCI001212105R8□Y0	5.8	100kHz,0.1V	0.0113	10.5	7.6	30	5R8
APCI001212106R8□Y0	6.8	100kHz,0.1V	0.0115	10	7.1	20,30	6R8
APCI001212107R5□Y0	7.5	100kHz,0.1V	0.014	8.48	6.8	20,30	7R5
APCI001212108R2□Y0	8.2	100kHz,0.1V	0.016	8.3	6.7	20,30	8R2
APCI00121210100□Y0	10	100kHz,0.1V	0.017	8.2	6.95	20,30	100
APCI00121210120□Y0	12	100kHz,0.1V	0.0185	7.04	6.2	20,30	120
APCI00121210150□Y0	15	100kHz,0.1V	0.025	5.8	5.22	20,30	150
APCI00121210220□Y0	22	100kHz,0.1V	0.029	5.12	4.95	20,30	220
APCI00121210330□Y0	33	100kHz,0.1V	0.053	4.25	3.6	20,30	330
APCI00121210470□Y0	47	100kHz,0.1V	0.063	3.6	3.45	20,30	470
APCI00121210560□Y0	56	100kHz,0.1V	0.068	2.85	2.95	20,30	560
APCI00121210680□Y0	68	100kHz,0.1V	0.093	2.76	2.85	20,30	680
APCI00121210820□Y0	82	100kHz,0.1V	0.099	2.62	2.6	20,30	820
APCI00121210850□Y0	85	100kHz,0.1V	0.12	2.6	2.6	20,30	850
APCI00121210101□Y0	100	100kHz,0.1V	0.126	2.31	2.45	20	101
APCI00121210121□Y0	120	100kHz,0.1V	0.154	2.05	2.2	20	121
APCI00121210151□Y0	150	100kHz,0.1V	0.174	1.8	1.9	20	151
APCI00121210181□Y0	180	100kHz,0.1V	0.191	1.66	1.86	20	181
APCI00121210221□Y0	220	100kHz,0.1V	0.246	1.64	1.72	20	221
APCI00121210331□Y0	330	100kHz,0.1V	0.386	1.28	1.28	20	331
APCI00121210391□Y0	390	100kHz,0.1V	0.44	1.2	1.27	20	391

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 25% from its value without current
3. Iirms for a 40°C temprature rise from 25°C ambient with current
4. Rated DC Current: The less value which is Isat or Iirms
5. Measure Equipment:

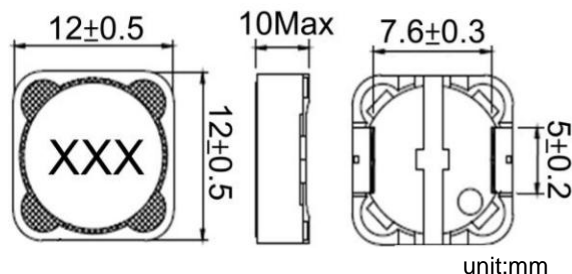
- L: HP4284A PRECISION LCR METER (or equivalent)
- RDC: CHROMA MODEL 16502 MILLIOHMETER (or equivalent)
- Isat:WK3255BQ+ WK3265B (or equivalent)
- Iirms: WK3255BQ+ WK3265B (or equivalent)

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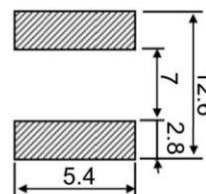
APCI00121210 - Y0 Type

■ Dimensions



unit:mm

■ Recommended Land Pattern



unit:mm

■ Electrical Characteristics

Part No.	Inductance (μH)	Test Freq.	RDC (Ω)Max	Isat (A)Max	Irms (A)Typ	Tolerance ($\pm\%$)	Marking
APCI00121210471□Y0	470	100kHz,0.1V	0.471	1.06	1.25	20	471
APCI00121210561□Y0	560	100kHz,0.1V	0.65	1.01	0.98	20	561
APCI00121210681□Y0	680	100kHz,0.1V	0.73	0.83	0.96	20	681
APCI00121210821□Y0	820	100kHz,0.1V	0.824	0.81	0.94	20	821
APCI00121210102□Y0	1000	100kHz,0.1V	1.22	0.7	0.78	20	102
APCI00121210122□Y0	1200	100kHz,0.1V	1.33	0.64	0.79	20	122
APCI00121210152□Y0	1500	100kHz,0.1V	1.99	0.56	0.58	20	152
APCI00121210182□Y0	1800	100kHz,0.1V	2.18	0.48	0.54	20	182
APCI00121210222□Y0	2200	100kHz,0.1V	2.58	0.43	0.52	20	222
APCI00121210332□Y0	3300	100kHz,0.1V	4.6	0.3	0.4	20	332

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 25% from its value without current
3. I rms for a 40°C temprature rise from 25°C ambient with current
4. Rated DC Current: The less value which is Isat or I rms
5. Measure Equipment:

L: HP4284A PRECISION LCR METER (or equivalent)

RDC: CHROMA MODEL 16502 MILLIOHMMETER (or equivalent)

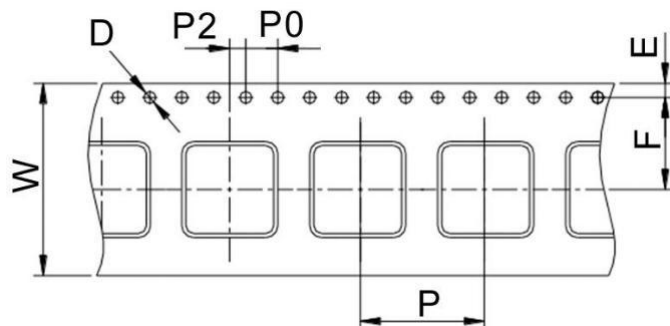
Isat:WK3255BQ+ WK3265B (or equivalent)

I rms: WK3255BQ+ WK3265B (or equivalent)

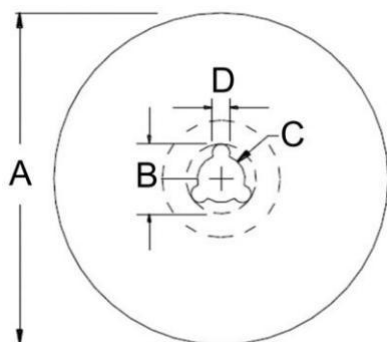
Power Inductor APCI Series **Automotive AEC-Q200**

■ 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	
APCI00070746	16	1.5	1.75	7.5	12	4	2	330	20	13	2	1000
APCI00101040	16	1.5	1.75	7.5	12	4	2	330	20	13	2	900
APCI00121250	24	1.5	1.75	11.5	16	4	2	330	20	13	2	500
APCI00121260	24	1.5	1.75	11.5	16	4	2	330	20	13	2	500
APCI00121280	24	1.5	1.75	11.5	16	4	2	330	20	13	2	500
APCI00121210	24	1.5	1.75	11.5	24	4	2	330	20	13	2	250