

**Power Inductor APCI Series**

**Automotive  
AEC-Q200**

RoHS Compliant  
Halogen Free  
REACH Compliant



Power  
Circuit

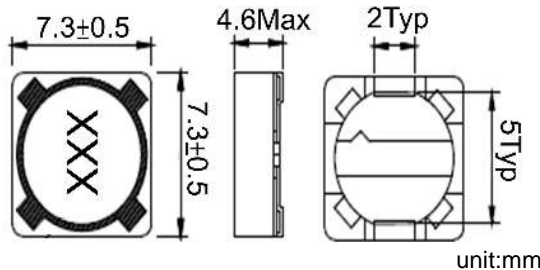
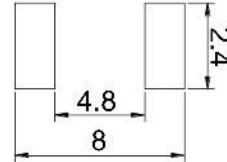
Shield

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			

**APCI00070746 - 80 Type**
**■ Dimensions**

**■ Recommended Land Pattern**

**■ 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%**

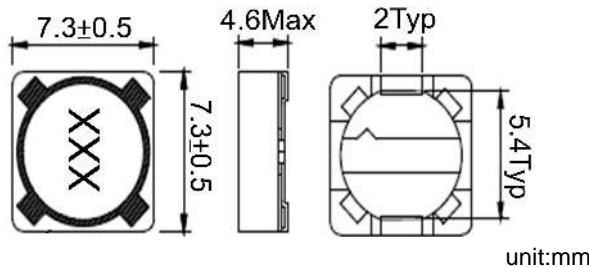
1. Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
2. Isat for Inductance drop 30% from its value without current
3. Iirms for a 40°C temprature rise from 25°C ambient with current
4. Rated DC Current: The less value which is Isat or Iirms
5. Measure Equipment:

L: HP4284A PRECISION LCR METER (or equivalent)

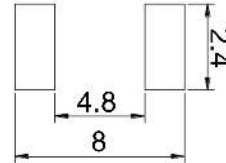
RDC: CHROMA MODEL 16502 MILLIOHMMETER (or equivalent)

Isat:WK3255BQ+ WK3265B (or equivalent)

Iirms: WK3255BQ+ WK3265B (or equivalent)

**APCI00070746 - Y0 Type**
**■ Dimensions**


unit:mm

**■ Recommended Land Pattern**


unit:mm

**■ Electrical Characteristics**

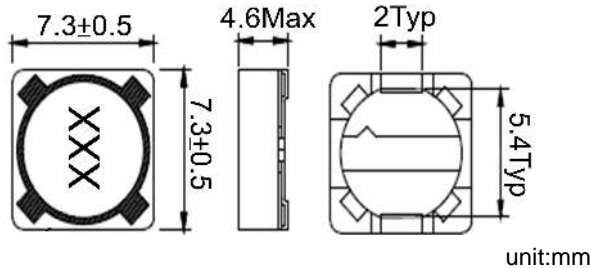
Part No.	Inductance (uH)	Test Freq.	RDC (Ω)Max	Rated Current (A)Max	Tolerance (±%)	Marking
APCI00070746R33□Y0	0.33	100kHz,0.25V	0.0087	8.5	30	R33
APCI00070746R47□Y0	0.47	100kHz,0.25V	0.0109	8	30	R47
APCI00070746R1R0□Y0	1.0	100kHz,0.25V	0.0111	6.8	30	1R0
APCI00070746R2□Y0	1.2	100kHz,0.25V	0.0111	6.8	20,30	1R2
APCI00070746R5□Y0	1.5	100kHz,0.25V	0.0134	5.7	20,30	1R5
APCI00070746R2R□Y0	2.2	100kHz,0.25V	0.0147	5	30	2R2
APCI00070746R3R□Y0	3.3	100kHz,0.25V	0.0214	4	20,30	3R3
APCI00070746R4R□Y0	4.7	100kHz,0.25V	0.031	3.4	20,30	4R7
APCI00070746R6R□Y0	5.6	100kHz,0.25V	0.0335	3	20,30	5R6
APCI00070746R8R□Y0	6.8	100kHz,0.25V	0.035	2.3	20,30	6R8
APCI00070746R8R2□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%**

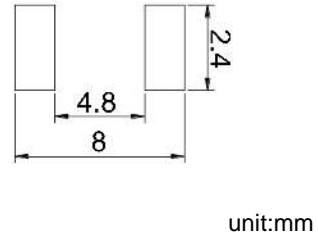
- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- Rated DC Current: Based on inductance change ( $\Delta L/L_0$  : drop 25% Max.) @ambient temperature 25°C and Based on temperature rise ( $\Delta T$  : 40°C Typ.)
- Measure Equipment:  
 L: HP4284A PRECISION LCR METER (or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

**APCI00070746 - Y0 Type**

**■ Dimensions**



**■ Recommended Land Pattern**



**■ Electrical Characteristics**

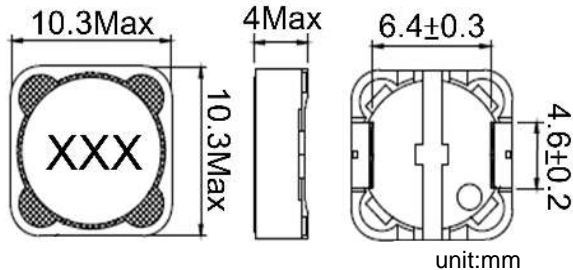
Part No.	Inductance (uH)	Test Freq.	RDC (Ω)Max	Rated Current (A)Max	Tolerance (±%)	Marking
APCI00070746271□Y0	270	100kHz,0.25V	1.64	0.34	20	271
APCI00070746331□Y0	330	100kHz,0.25V	1.86	0.32	20	331
APCI00070746391□Y0	390	100kHz,0.25V	2.85	0.29	20	391
APCI00070746471□Y0	470	100kHz,0.25V	3.01	0.26	20	471
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%**

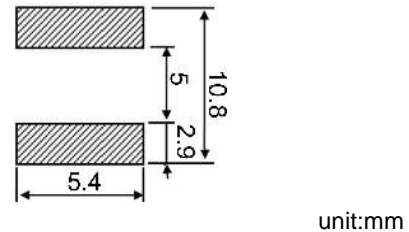
- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- Rated DC Current: Based on inductance change ( $\Delta L/L_0$  : drop 25% Max.) @ambient temperature 25°C and Based on temperature rise ( $\Delta T$  : 40°C Typ.)
- Measure Equipment:  
 L: HP4284A PRECISION LCR METER (or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

**APCI00101040 - Y0 Type**

**■ Dimensions**



**■ Recommended Land Pattern**

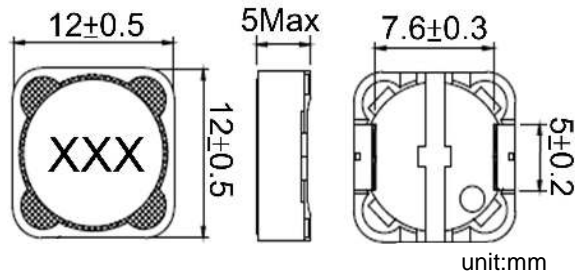
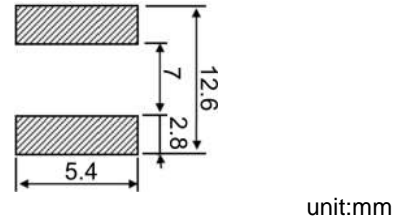


**■ Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)Max (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%**

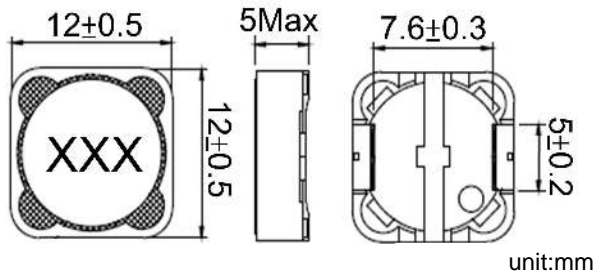
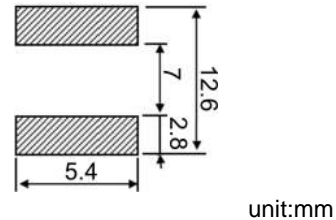
1. Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
2. Isat for Inductance drop 35% from its value without current
3. Irms for a 40°C temprature rise from 25°C ambient with current
4. Rated DC Current: The less value which is Isat or Irms
5. Measure Equipment:  
 L: HP4284A PRECISION LCR METER (or equivalent)  
 RDC: CHROMA MODEL 16502 MILLIOHMMETER (or equivalent)  
 Isat:WK3255BQ+ WK3265B (or equivalent)  
 Irms: WK3255BQ+ WK3265B (or equivalent)

**APCI00121250 - 80 Type**
**■ Dimensions**

**■ Recommended Land Pattern**

**■ Electrical Characteristics**

Part No.	Inductance ( $\mu$ H)	Test Freq.	RDC ( $\Omega$ )Max	Isat (A)Max	Irms (A)Typ	Tolerance ( $\pm$ %)	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 MILLIOHMETER (or equivalent)
  - Isat:WK3255BQ+ WK3265B (or equivalent)
  - Irms: WK3255BQ+ WK3265B (or equivalent)

**APCI00121250 - Y0 Type**
**■ Dimensions**

**■ Recommended Land Pattern**

**■ Electrical Characteristics**

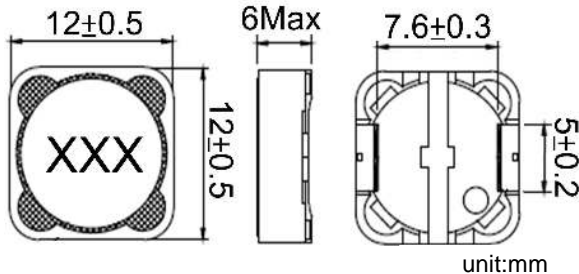
Part No.	Inductance (uH)	Test Freq.	RDC (Ω)Max	Rated Current (A)Max	Tolerance (±%)	Marking
APCI001212503R0□Y0	3.0	100kHz,0.25V	0.015	7	20,30	3R0
APCI001212503R3□Y0	3.3	100kHz,0.25V	0.015	7	30	3R3
APCI001212503R9□Y0	3.9	100kHz,0.25V	0.015	6.5	30	3R9
APCI001212504R2□Y0	4.2	100kHz,0.25V	0.016	6.5	30	4R2
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 ( $\Delta T$  : 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)

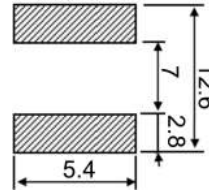
**APCI00121260 - 80 Type**

**■ 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

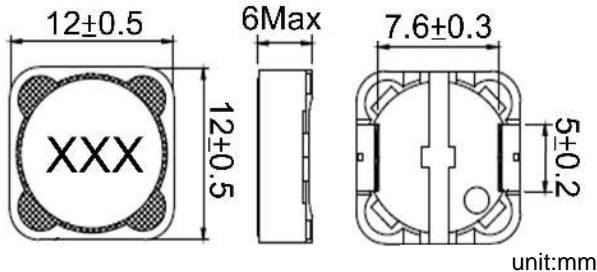
**Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%**

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 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)



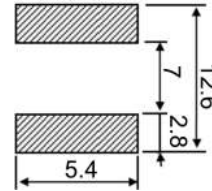
**APCI00121260 - Y0 Type**

**■ 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

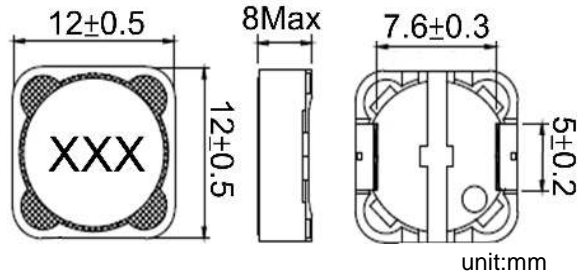
**Note: When ordering, please specify tolerance code. Tolerance: K=±10% / M=±20% / T=±30%**

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

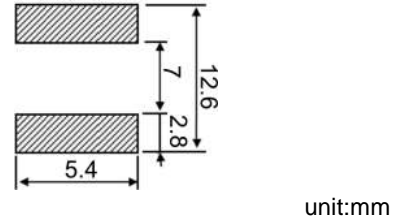
Please be sure to request approval specifications that provide further details of the products. Kindly note that the content of these specifications are subject to change or may be discontinued without prior notice. This product may not be designed/used in medical or high risk applications without Chilisin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

**APCI00121280 - 80 Type**

**■ Dimensions**



**■ Recommended Land Pattern**



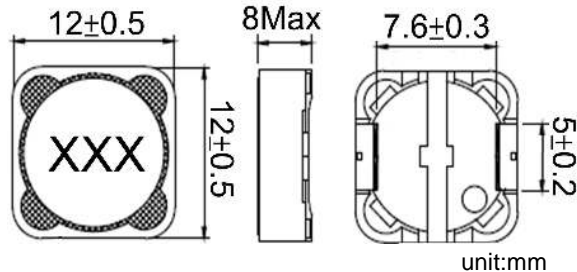
**■ Electrical Characteristics**

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

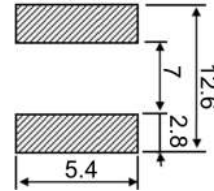
**Note: When ordering, please specify tolerance code. Tolerance: K=±10% / M=±20% / T=±30%**

1. Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
2. Isat for Inductance drop 10% from its value without current
3. 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)

**APCI00121280 - 80 Type**
**■ Dimensions**


unit:mm

**■ Recommended Land Pattern**


unit:mm

**■ Electrical Characteristics**

Part No.	Inductance ( $\mu$ H)	Test Freq.	RDC ( $\Omega$ )Max	Isat (A)Max	Irms (A)Typ	Tolerance ( $\pm$ %)	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%**

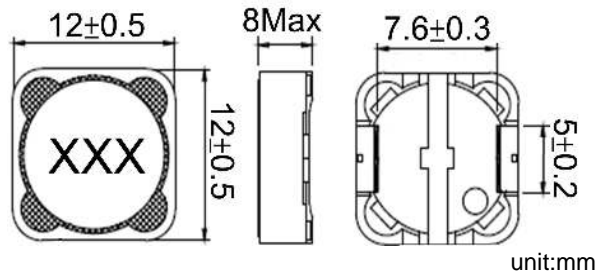
- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- Isat for Inductance drop 10% from its value without current
- Irms for a 40°C temprature rise from 25°C ambient with current
- Rated DC Current: The less value which is Isat or Irms
- Measure Equipment:
  - L: HP4284A PRECISION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

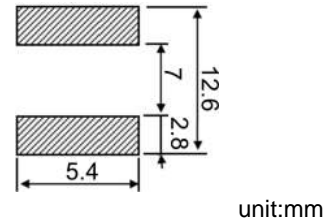
Automotive  
AEC-Q200

### APCI00121280 - Y0 Type

#### ■ Dimensions



#### ■ Recommended Land Pattern



#### ■ Electrical Characteristics

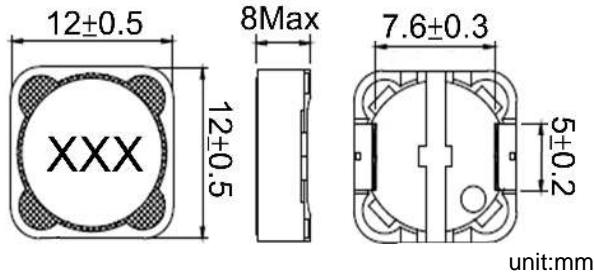
Part No.	Inductance (uH)	Test Freq.	RDC (Ω)Max	Rated Current (A)Max	Tolerance (±%)	Marking
APCI001212801R0□Y0	1.0	100kHz,0.25V	0.007	9.8	30	1R0
APCI001212801R2□Y0	1.2	100kHz,0.25V	0.007	9.8	30	1R2
APCI001212802R2□Y0	2.2	100kHz,0.25V	0.0115	8	20,30	2R2
APCI001212802R4□Y0	2.4	100kHz,0.25V	0.0115	8	30	2R4
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 ( $\Delta T$  : 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)

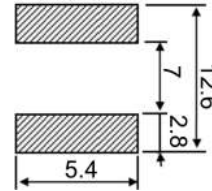
**APCI00121280 - Y0 Type**

**■ Dimensions**



unit:mm

**■ Recommended Land Pattern**



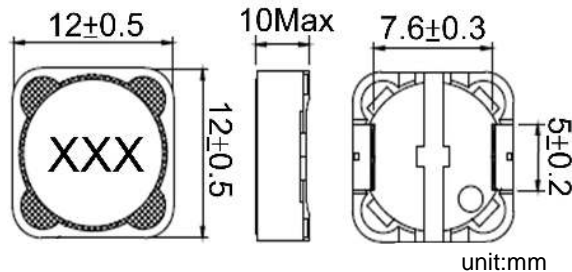
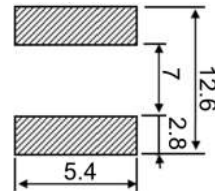
unit:mm

**■ 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 ( $\Delta T$  : 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)

**APCI00121210 - 80 Type**
**■ Dimensions**

**■ Recommended Land Pattern**


unit:mm

**■ Electrical Characteristics**

Part No.	Inductance ( $\mu$ H)	Test Freq.	RDC ( $\Omega$ )Max	Isat (A)Max	Irms (A)Typ	Tolerance ( $\pm$ %)	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%**

- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- Isat for Inductance drop 30% 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)

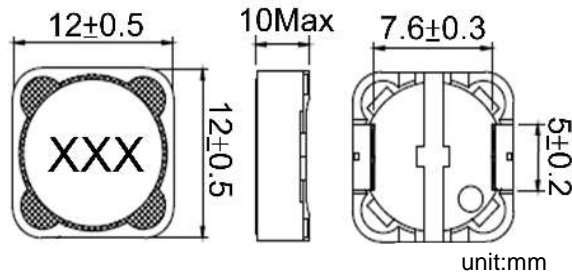
RDC: CHROMA MODEL 16502 MILLIOHMETER (or equivalent)

Isat:WK3255BQ+ WK3265B (or equivalent)

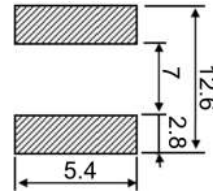
Irms: WK3255BQ+ WK3265B (or equivalent)

**APCI00121210 - Y0 Type**

**■ Dimensions**



**■ Recommended Land Pattern**



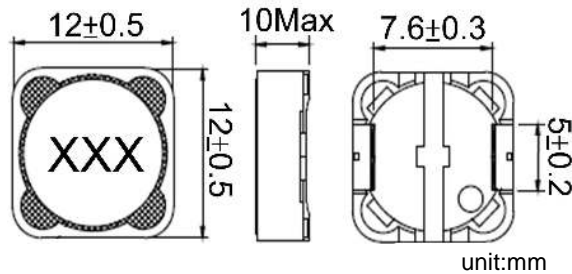
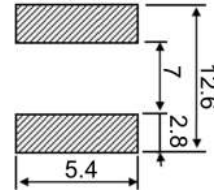
unit:mm

**■ Electrical Characteristics**

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)Max	Isat (A)Max	Irms (A)Typ	Tolerance (±%)	Marking
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%**

- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- Isat for Inductance drop 25% 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 MILLIOHMETER (or equivalent)  
Isat:WK3255BQ+ WK3265B (or equivalent)  
Irms: WK3255BQ+ WK3265B (or equivalent)

**APCI00121210 - Y0 Type**
**■ Dimensions**

**■ Recommended Land Pattern**


unit:mm

**■ Electrical Characteristics**

Part No.	Inductance ( $\mu$ H)	Test Freq.	RDC ( $\Omega$ )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

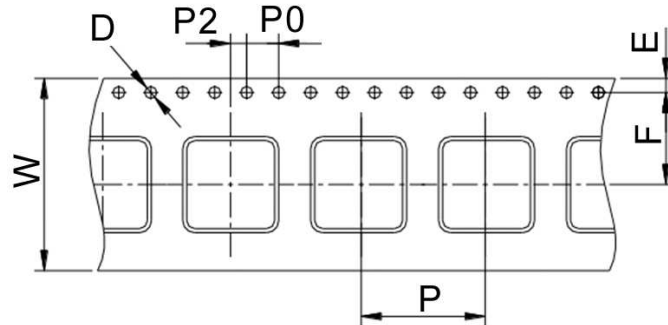
**Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%**

- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- Isat for Inductance drop 25% 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)

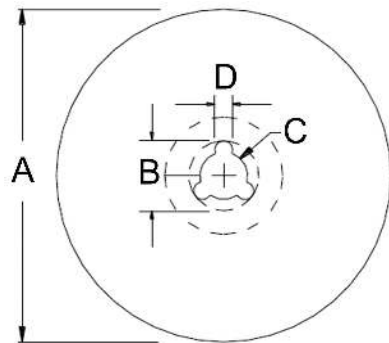


**■ Packaging**

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