

Power Inductor APCI Series

**Automotive
AEC-Q200**

RoHS Compliant
Halogen Free
REACH Compliant



Power
Circuit

Shield

Wire
Wound

Ferrite

Part Numbering

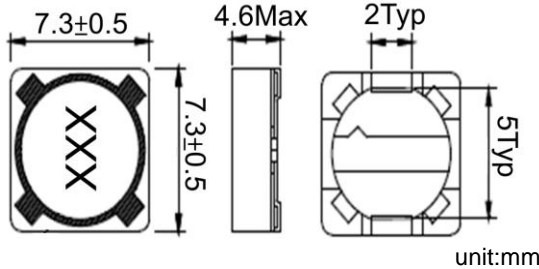
| A | PCI | 00 | 101040 | 1R0 | M | 80 |
|-------|-------------|--------------|----------------------|-----------------|-----------|---------------|
| Grade | Series Name | Control Code | Dimensions Code (mm) | Inductance (uH) | Tolerance | Internal Code |
| | | | 070746 7.3x7.3x4.6 | 1R0 1 | K ±10% | 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

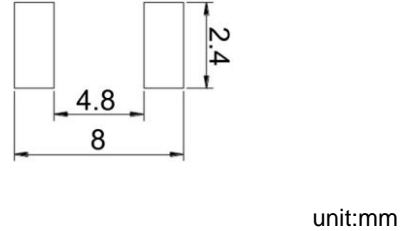
**Automotive
AEC-Q200**

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%

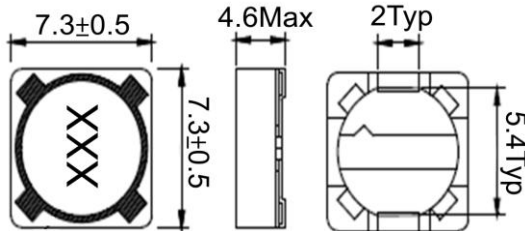
1. Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
2. Isat for Inductance drop 30% from its value without current
3. I rms for a 40°C temprature rise from 25°C ambient with current
4. Rated DC Current: The less value which is Isat or I rms
5. Measure Equipment:
 - L: HP4284A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

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**Automotive
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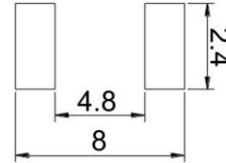
APCI00070746 - Y0 Type

■ 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%

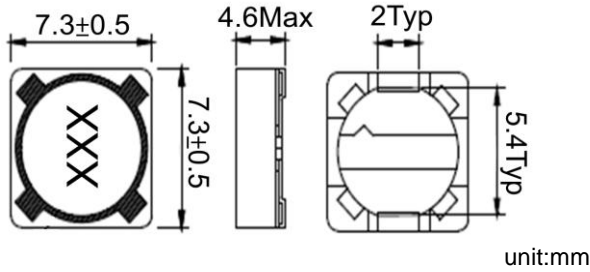
- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- Rated DC Current: Based on inductance change ($\Delta L/L_0$: drop 25% Max.) @ambient temperature 25°C and Based on temperature rise (ΔT : 40°C Typ.)
- Measure Equipment:
 L: HP4284A PRECISION LCR METER (or equivalent)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

Power Inductor APCI Series

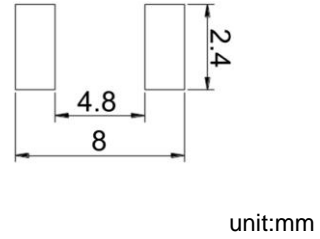
**Automotive
AEC-Q200**

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%

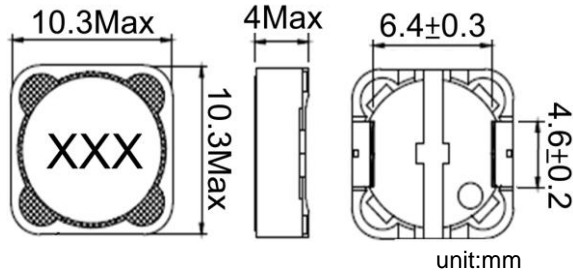
- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- Rated DC Current: Based on inductance change ($\Delta L/L_0$: drop 25% Max.) @ambient temperature 25°C and Based on temperature rise (ΔT : 40°C Typ.)
- Measure Equipment:
 L: HP4284A PRECISION LCR METER (or equivalent)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

Power Inductor APCI Series

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AEC-Q200**

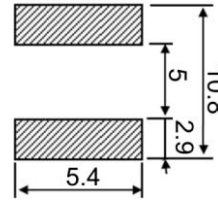
APCI00101040 - Y0 Type

Dimensions



unit:mm

Recommended Land Pattern



unit:mm

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%

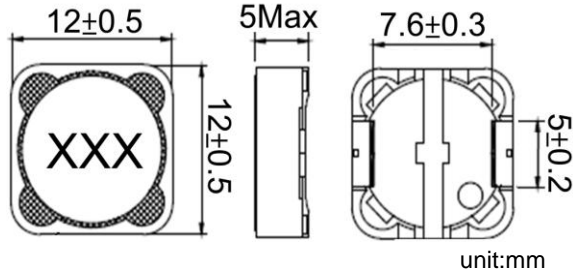
- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- Isat for Inductance drop 35% from its value without current
- Irms for a 40°C temprature rise from 25°C ambient with current
- Rated DC Current: The less value which is Isat or Irms
- Measure Equipment:
 - L: HP4284A PRECISION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

Power Inductor APCI Series

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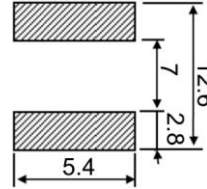
APCI00121250 - 80 Type

■ 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%

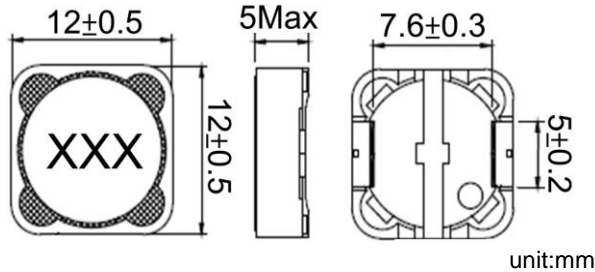
1. Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
2. Isat for Inductance drop 10% from its value without current
3. Irms for a 40°C temprature rise from 25°C ambient with current
4. Rated DC Current: The less value which is Isat or Irms
5. Measure Equipment:
 L: HP4284A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

Power Inductor APCI Series

**Automotive
AEC-Q200**

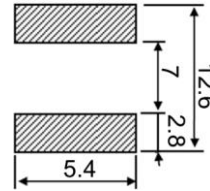
APCI00121250 - Y0 Type

■ 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%

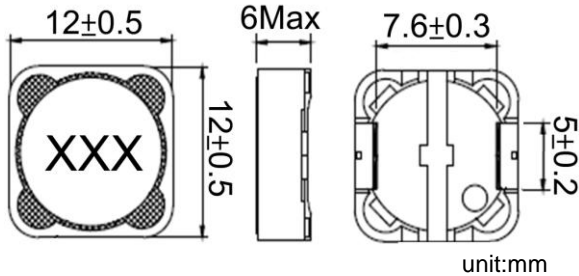
- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- Rated DC Current: Based on inductance change ($\Delta L/L_0$: drop 10% Max.) @ambient temperature 25°C and Based on temperature rise (ΔT : 40°C Typ.)
- Measure Equipment:
 - L: HP4284A PRECISION LCR METER (or equivalent)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

Power Inductor APCI Series

**Automotive
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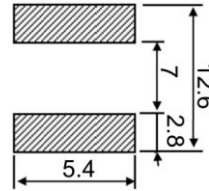
APCI00121260 - 80 Type

■ 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%

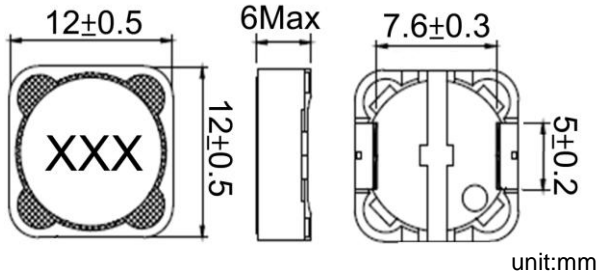
1. Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
2. Isat for Inductance drop 10% from its value without current
3. I rms for a 40°C temprature rise from 25°C ambient with current
4. Rated DC Current: The less value which is Isat or I rms
5. Measure Equipment:
 - L: HP4284A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

Power Inductor APCI Series

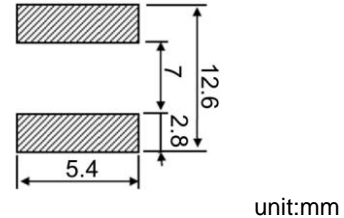
**Automotive
AEC-Q200**

APCI00121260 - Y0 Type

■ Dimensions



■ Recommended Land Pattern



■ 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 (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)

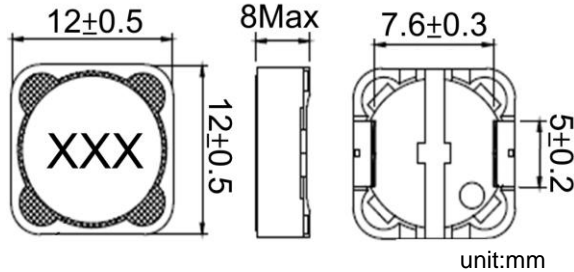
Please be sure to request approval specifications that provide further details of the products. Kindly note that the content of these specifications are subject to change or may be discontinued without prior notice. This product may not be designed/used in medical or high risk applications without Chilisin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

Power Inductor APCI Series

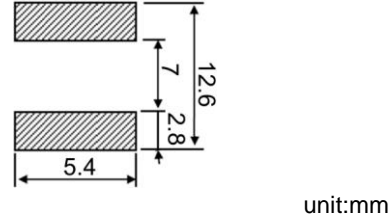
**Automotive
AEC-Q200**

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. 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:

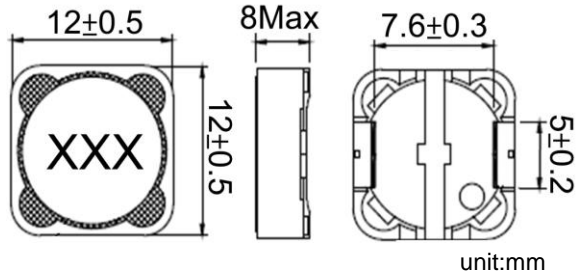
L: HP4284A PRECISION LCR METER (or equivalent)
 RDC: CHROMA MODEL 16502 MILLIOHMMETER (or equivalent)
 Isat:WK3255BQ+ WK3265B (or equivalent)
 I rms: WK3255BQ+ WK3265B (or equivalent)

Power Inductor APCI Series

**Automotive
AEC-Q200**

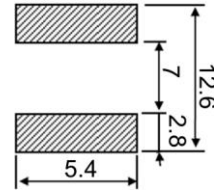
APCI00121280 - 80 Type

■ 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 |
|--------------------|------------------|--------------|------------|-------------|-------------|----------------|---------|
| 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%

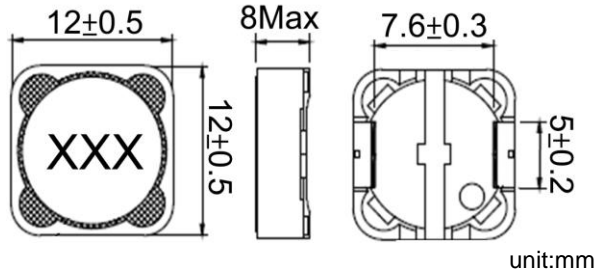
1. Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
2. Isat for Inductance drop 10% from its value without current
3. I rms for a 40°C temprature rise from 25°C ambient with current
4. Rated DC Current: The less value which is Isat or I rms
5. Measure Equipment:
 - L: HP4284A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

Power Inductor APCI Series

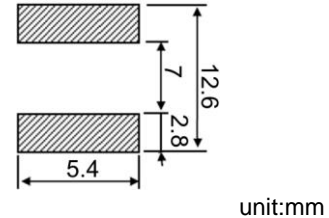
**Automotive
AEC-Q200**

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%

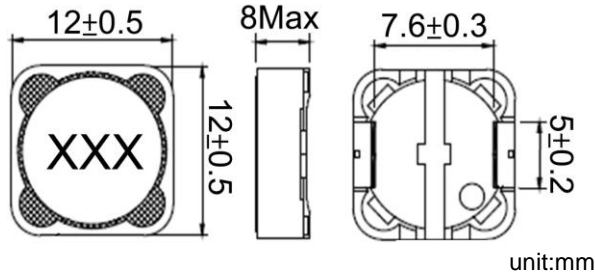
- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- Rated DC Current: Based on inductance change ($\Delta L/L_0$: drop 10% Max.) @ambient temperature 25°C and Based on temperature rise (ΔT : 40°C Typ.)
- Measure Equipment:
 - L: HP4284A PRECISION LCR METER (or equivalent)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

Power Inductor APCI Series

**Automotive
AEC-Q200**

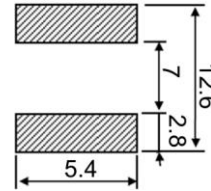
APCI00121280 - Y0 Type

■ 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%

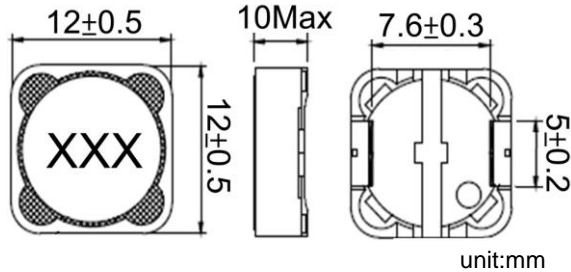
- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- Rated DC Current: Based on inductance change ($\Delta L/L_0$: drop 10% Max.) @ambient temperature 25°C and Based on temperature rise (ΔT : 40°C Typ.)
- Measure Equipment:
 - L: HP4284A PRECISION LCR METER (or equivalent)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

Power Inductor APCI Series

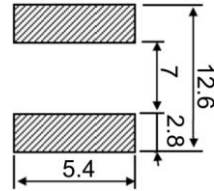
**Automotive
AEC-Q200**

APCI00121210 - 80 Type

■ Dimensions



■ Recommended Land Pattern



■ 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%

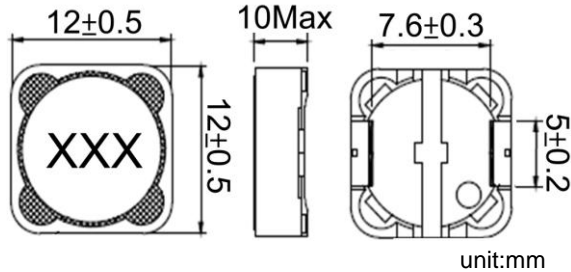
- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- Isat for Inductance drop 30% from its value without current
- Irms for a 40°C temprature rise from 25°C ambient with current
- Rated DC Current: The less value which is Isat or Irms
- Measure Equipment:
 - L: HP4284A PRECISION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

Power Inductor APCI Series

**Automotive
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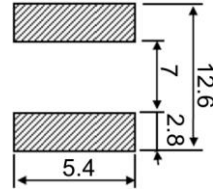
APCI00121210 - Y0 Type

■ 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:

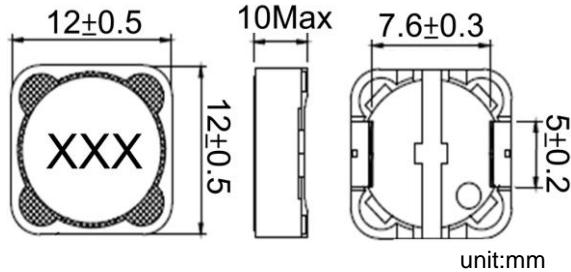
- L: HP4284A PRECISION LCR METER (or equivalent)
- RDC: CHROMA MODEL 16502 MILLIOHMETER (or equivalent)
- Isat:WK3255BQ+ WK3265B (or equivalent)
- Iirms: WK3255BQ+ WK3265B (or equivalent)

Power Inductor APCI Series

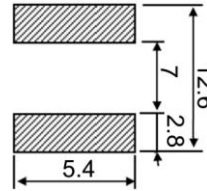
**Automotive
AEC-Q200**

APCI00121210 - Y0 Type

■ Dimensions



■ Recommended Land Pattern



■ Electrical Characteristics

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

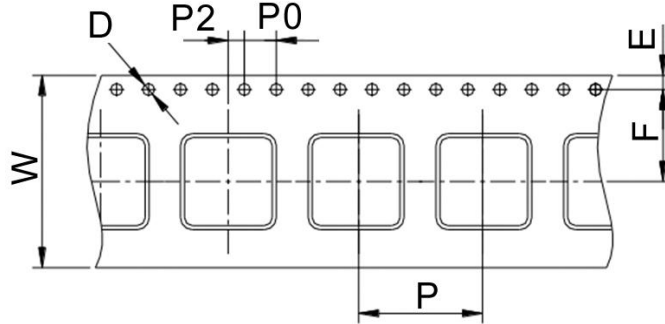
1. Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
2. Isat for Inductance drop 25% from its value without current
3. Irms for a 40°C temprature rise from 25°C ambient with current
4. Rated DC Current: The less value which is Isat or Irms
5. Measure Equipment:
 - L: HP4284A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

Power Inductor APCI Series

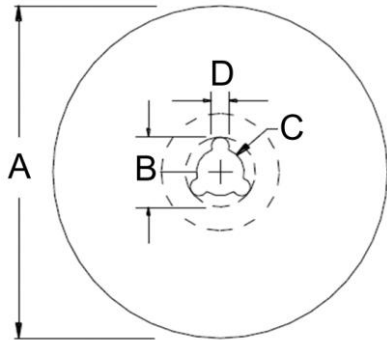
**Automotive
AEC-Q200**

■ 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 |