

**Power Inductor APCK Series**

**Automotive  
AEC-Q200**

RoHS Compliant  
Halogen Free  
REACH Compliant



Power  
Circuit

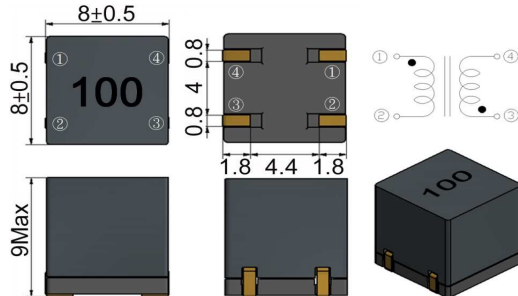
Shield

Assembly

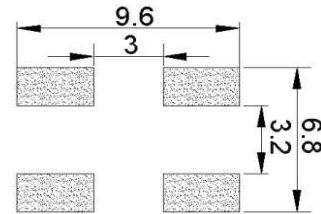
Ferrite

**Part Numbering**

A	PCK	00	080809	100	M	70
Grade	Series Name	Control Code	Dimensions Code (mm)	Inductance (uH)	Tolerance	Internal Code
			080809 8x8x9	6R8 6.8	M ±20%	70
			100910 10x9x10	100 10		
			131111 12.8x10.5x10.7			

**APCK00080809 Type**
**■ Dimensions**


unit:mm

**■ Recommended Land Pattern**


unit:mm

**■ Electrical Characteristics**

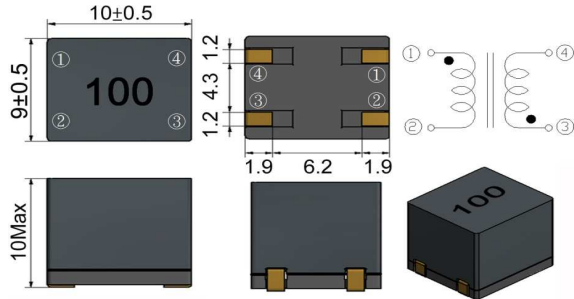
Part No.	Inductance (uH)	Test Freq.	RDC (mΩ)Max	Isat (A)Max	Irms (A)Typ	Tolerance (±%)	Marking
APCK000808096R8M70	6.8	100kHz,0.25V	31	5.2	3.2	20	6R8
APCK00080809100M70	10	100kHz,0.25V	40	4.3	2.7	20	100
APCK00080809220M70	22	100kHz,0.25V	90	3	1.8	20	220

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

- Operating temperature range - 50°C ~ 150°C(Including self - temperature rise)
- Isat : Based on Inductance change drop ( $\Delta L/L_0$  : drop 25% Max.)@ ambient temp. 25°C
- Irms : Based on temperature rise ( $\Delta T$  : 40°C Typ.)
- Temperature rise allowable current : A rise in temperature of core surface is within 40°C
- 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)

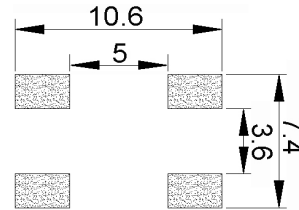
**APCK00100910 Type**

**■ Dimensions**



unit:mm

**■ Recommended Land Pattern**



unit:mm

**■ Electrical Characteristics**

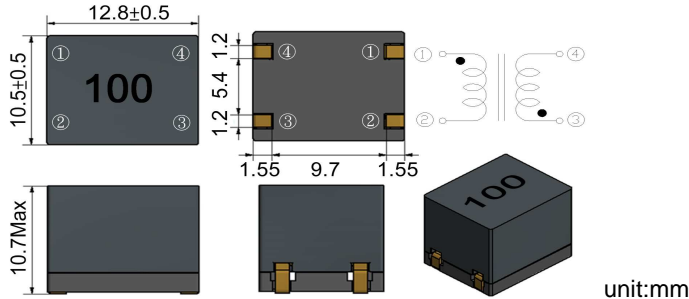
Part No.	Inductance (uH)	Test Freq.	RDC (mΩ)Max	Isat (A)Max	Irms (A)Typ	Tolerance (±%)	Marking
APCK00100910100M70	10	100kHz,0.25V	22	5	3.9	20	100

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

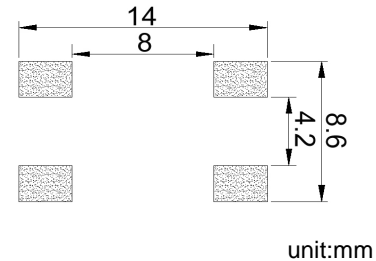
- Operating temperature range - 50°C ~ 150°C(Including self - temperature rise)
- Isat : Based on Inductance change drop ( $\Delta L/L_0$  : drop 25% Max.)@ ambient temp. 25°C
- Irms : Based on temprature rise ( $\Delta T$  : 40°C Typ.)
- Temperature rise allowable current : A rise in temperature of core surface is within 40°C
- 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)

**APCK00131111 Type**

**■ Dimensions**



**■ Recommended Land Pattern**



**■ Electrical Characteristics**

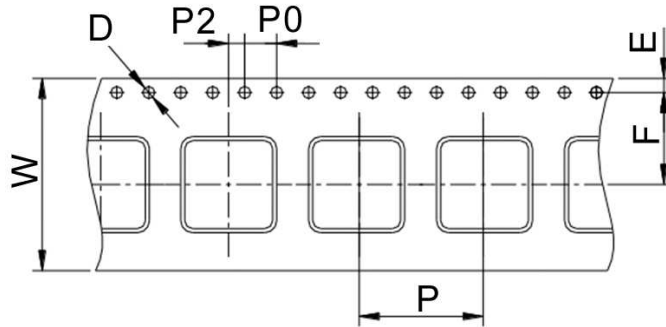
Part No.	Inductance (uH)	Test Freq.	RDC (mΩ)Max	Isat (A)Max	Irms (A)Typ	Tolerance (±%)	Marking
APCK00131111100M70	10	100kHz,0.25V	18	7.1	4.2	20	100

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

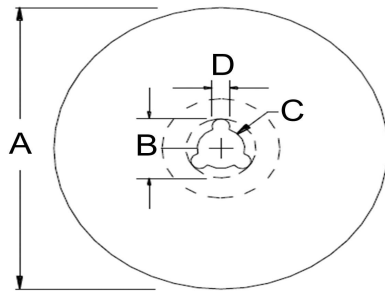
- Operating temperature range - 50°C ~ 150°C(Including self - temperature rise)
- Isat : Based on Inductance change drop ( $\Delta L/L_0$  : drop 25% Max.)@ ambient temp. 25°C
- Irms : Based on temprature rise ( $\Delta T$  : 40°C Typ.)
- Temperature rise allowable current : A rise in temperature of core surface is within 40°C
- 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	
APCK00080809	24	1.5	1.75	11.5	16	4	2	330	20	13	2	400
APCK00100910	24	1.5	1.75	11.5	16	4	2	330	20	13	2	300
APCK00131111	24	1.5	1.75	11.5	24	4	2	330	20	13	2	200