

## Automotive Hall Current Sensor ASIC Chip Series

### YCOV800..1200C205



Suitable for measuring DC, AC, and pulse currents; the primary and secondary circuits are completely isolated, with no insertion loss.

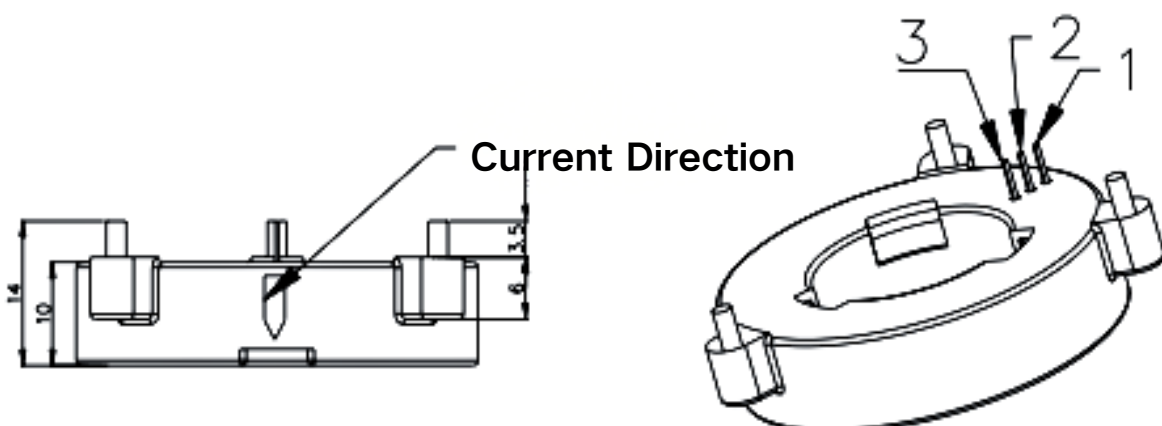
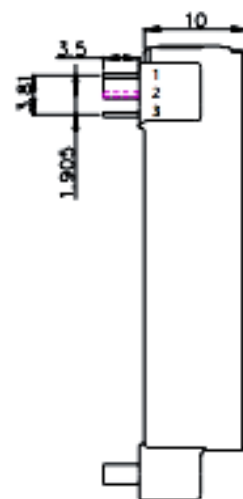
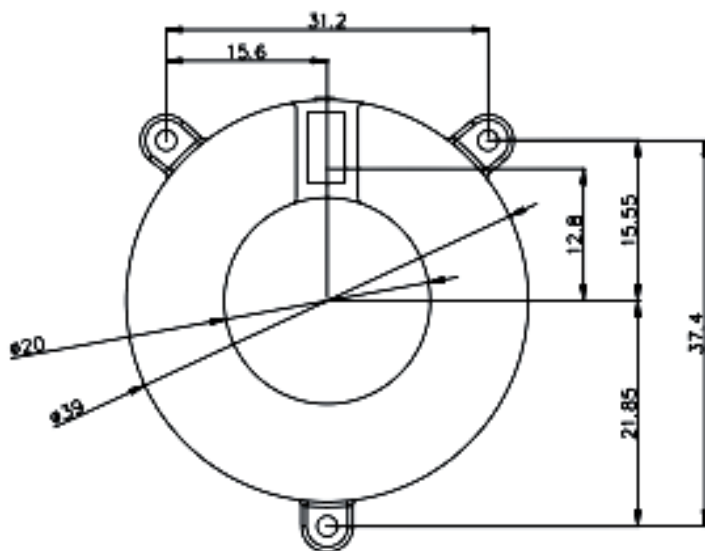
Product Model	Rated Current I <sub>pn</sub> (A)	Maximum Measurement Range I <sub>pm</sub> (A)
YCV800C205/-1	± 800	± 800
YCV900C205/-1	± 900	± 900
YCV1000C205/-1	± 1000	± 1000
YCV1100C205/-1	± 1100	± 1100
YCV1200C205/-1	± 1200	± 1200

Application Fields
• Switching Power Supplies
• AC Drives (VFD)
• Uninterruptible Power Supplies (UPS)
• Testing Equipment
• Instruments and Meters

### Executive Standards

- JB/T 7490-2007 Hall Effect Current Sensors
- SJ20790-2000 General Specification for Current and Voltage Sensors

### Outline Dimensions and Pin Definition (Unit: mm)



PINS	Definition
1	Power Supply +5V
2	Ground GND
3	Output OUT

- General Tolerance : ± 1 mm
- Other Tolerances Standard : GB/T 1804-2000-M

## Electrical Parameter Characteristics @ Ta = 25°C

Parameter Description	Symbol	Unit	Test Conditions	Min	Typ	Max
Supply Voltage	Vcc	V	@DC	4.75	5	5.5
Power Consumption Current	Ic	mA	@Ipn		15	
Rated Output	Vout	V	@ Ipn, RL=10K, T=25 ° C		Vcc ± 2	
Quiescent Output Voltage	Voe	V	@Ipn=0A, C205	2.48	2.5	2.52
			@Ipn=0A, C205-1	1/2Vcc -0.02	1/2Vcc	1/2Vcc +0.02
Magnetic Offset Voltage	Vom	mV	@Ipn=0A, T=25 ° C		± 10	
Load Resistance	RL	Ω	@DC+5V, Ipn	4.7K		
Output Resistance	Rout	Ω			9	
Accuracy	Xg	%	@Ipn, T=25 ° C	-1		1
Linearity	ε L	%	@Ipn, T=25 ° C	-1		1
Current Following Precision	di/dt	A/μs		100		
Response Time	Tr	μs	@90%Ipn		5	
Zero-point Output Drift	TCVoe	mV/°C	@-40 ° C ~ +125 ° C		±0.5	
Rated Output Drift	TCVout	mV/°C	@-40 ° C ~ +125 ° C		±0.5	
Operating Bandwidth	BW	KHz		DC 120		
Operating Temperature Range	TA	° C		-40 ° C	-	+125 ° C
Storage Temperature Range	Ts	° C		-45 ° C		

## Product Naming Rules

YC
OV
1000
C20
5
1

1
2
3
4
5
6

1. YUCHENG
2. Voltage Output
3. Rated Measurement Current 1000A
4. Automotive Sensor, Aperture Diameter 20mm
5. Supply Voltage +5V
6. None: V OE=2.500V  
1: VOE=1/2VCC

## Usage Instructions and Precautions

- Refer to the current direction arrow in the structural diagram to connect the current correctly, and pay attention to the forward and reverse directions of the current passing through the sensor.
- Strictly follow the functional pin definitions marked in the structural diagram for wiring (Note: Incorrect wiring may cause damage to the sensor).
- The above specifications are for standard parameter products; products can be customized according to customer requirements.