DATA SHEET
Hall Effect Current Sensor

PN: CHB_LTA5S2H | **IPN=50~300A**

Feature

- Closed- loop (compensated) current transducer
- Supply voltage: DC +5.0V
- Capable measurement of currents: DC, AC,pulse with galvanic isolation between primary circuit and secondary circuit.

Advantages

- High accuracy
- Low temperature drift
- Optimized response time, no insertion losses
- Low power consumption

Applications

- The application of variable frequency electrical appliances
- AC/DC variable-speed drive
- Uninterruptible Power Supplies (UPS)
- Switched Mode Power Supplies (SMPS)
- Inverter applications

Electrical data：（Ta=25℃， Vc=+5.0VDC,RL=2KΩ,CL=10000pF）

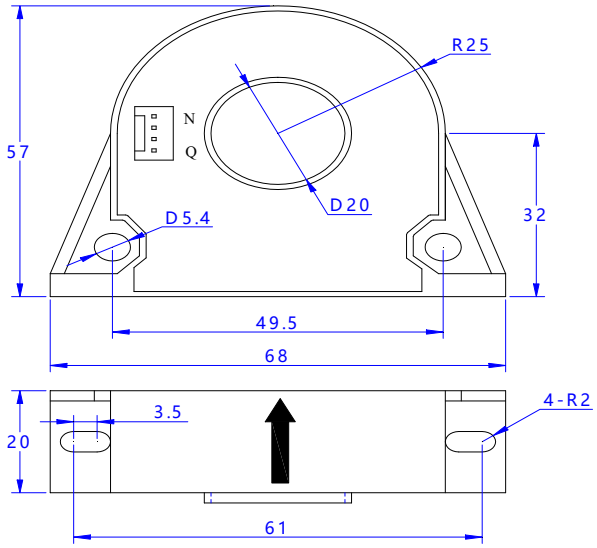
Parmeter \ Ref	CHB50 LTA5S2H	CHB100 LTA5S2H	CHB200 LTA5S2H	CHB300 LTA5S2H
Rated input Ipn(A)	50	100	200	300
Measuring range Ip(A)	0～±50	0～±100	0～±200	0～±300
Turns ratio Np/NS (T)	1:2000	1:4000	1:4000	1:5000
Inside resistance RM(Ω)	20±0.1%	20±0.1%	10±0.1%	8.333±0.1%
Output voltage Vo(V)	2.500±2.0*(IP/IPN)			
Output voltage Vo(V)	@IP=0,T=25°C 2.500			
Reference voltage VR(V)	@Internal reference,re out 2.500			
Supply voltage VC(V)	+5.0±5%			
Accuracy XG(%)	@IPN,T=25°C ＜±0.5			
Offset voltage VOE(mV)	@IP=0,T=25°C ＜±10			
Temperature variation of VOE VOT(mV/°C)	@IP=0,-40～+85°C ＜±0.05			
Linearity error εr(%FS)	＜0.1			
Di/dt accurately followed （A/μs）	＞50			

Response time tra(μs)	@90% of IPN	< 1.0
Power consumption IC(mA)		10+Is
Bandwidth BW(KHZ)	@-3dB,IPN	DC-100
Insulation voltage Vd(KV)	@50/60Hz, 1min,AC	3.0

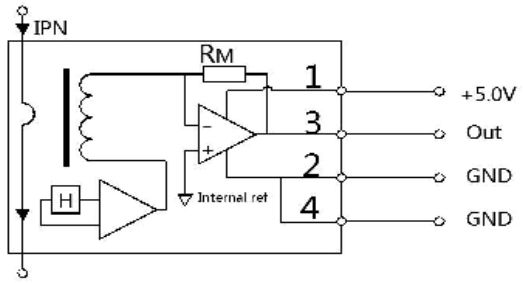
General data:

Parameter	Value
Operating temperature TA(°C)	-40 ~ +125
Storage temperature TS(°C)	-55~ +150
Mass M(g)	50
Plastic material	PBT G30/G15, UL94- V0;
Standards	IEC60950-1:2001
	EN50178:1998
	SJ20790-2000

Dimensions(mm):



Connection



General tolerance

General tolerance:< ±0.5mm

Primary through-hole: D20±0.3mm;

Connection of Secondary :
2510-04A (Instead of Molex 5045-04A)

Remarks:

- When the current goes through the primary pin of a sensor, the voltage will be measured at the output end.
- Custom design is available for the different rated input current and the output voltage.
- The dynamic performance is the best when the primary hole if fully filled with.
- The primary conductor should be <100°C.

WARNING : Incorrect wiring may cause damage to the sensor.