DATA SHEET
Hall Effect Current Sensor

PN: CHB_LSP5S2 | **IPN=06~30A**

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.
- PCB mounting installation

Advantages

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

Applications

- Photovoltaic (PV) current applications
- AC/DC variable-speed drive
- Uninterruptible Power Supplies (UPS)
- Switched Mode Power Supplies (SMPS)
- Inverter applications

ISO 14001

RoHS

CE

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

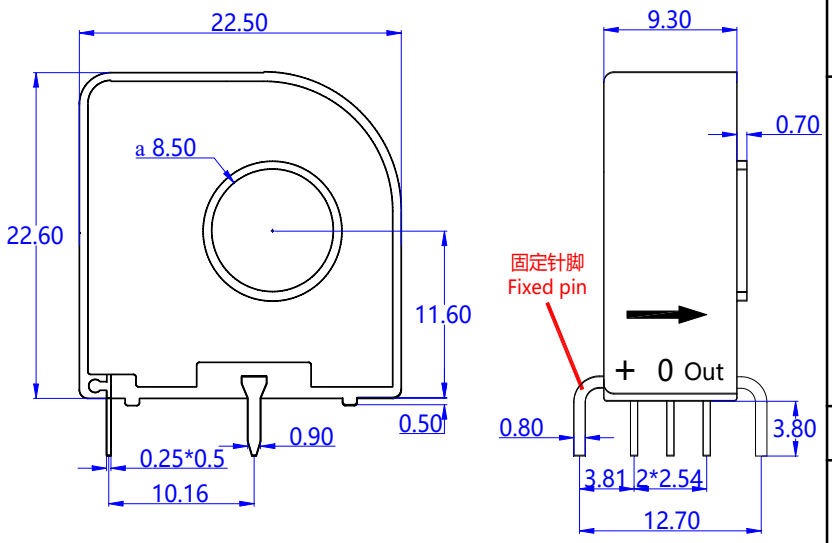
Parmeter \ Ref	CHB06 LSP5S2	CHB15 LSP5S2	CH20 LSP5S2	CHB25 LSP5S2	CHB30 LSP5S2
Rated input Ipn(A)	06	15	20	25	30
Measuring range Ip(A)	0～±06	0～±15	0～±20	0～±25	0～±30
Turns ratio Np/NS (T)	1:600	1:750	1:500	1:625	1:1500
Inside resistance RM(Ω)	200±0.1%	100±0.1%	50±0.1%	50±0.1%	100±0.1%
Output voltage Vo(V)	2.500±2.000*(IP/IPN)				
Output voltage Vo(V)	@IP=0,T=25°C	2.500			
Supply voltage VC(V)	+5.0 ±5%				
Accuracy XG(%)	@IPN,T=25°C	< ±0.7			
Offset voltage VOE(mV)	@IP=0,T=25°C	< ±25			
Temperature variation of VOE VOT(mV/°C)	@IP=0,-40 ~ +85°C	< ±0.5			
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-200
Insulation voltage Vd(KV)	@50/60Hz, 1min,AC	4.0

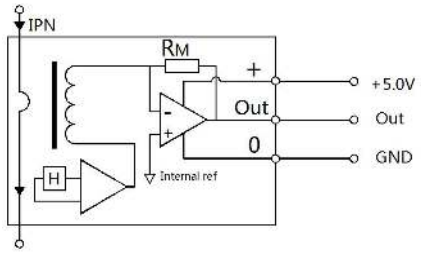
General data:

Parameter	Value
Operating temperature TA(°C)	-40 ~ +85
Storage temperature TS(°C)	-55~ +125
Mass M(g)	10
Plastic material	PBT G30/G15, UL94- V0;
Standards	IEC60950-1:2001
	EN50178:1998
	SJ20790-2000

Dimensions(mm):



Connection



General tolerance

General tolerance:< ±0.2mm
Primary through-hole: D8.5±0.15mm
Fixed pin: 0.8*0.9±0.15mm;
Secondary pin:3pin 0.25*0.5

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.