



DATA SHEET

Hall Effect Current Sensor

PN: CHB_LSP5S2

IPN=06~30A

Feature

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

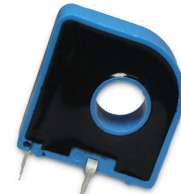
Advantages

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

- Very good linearity
- Can be customized

Applications

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



RoHS

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

Parameter \ Ref	CHB06 LSP5S2	CHB15 LSP5S2	CH20 LSP5S2	CHB25 LSP5S2	CHB30 LSP5S2
Rated input I _{pn} (A)	06	15	20	25	30
Measuring range I _p (A)	0~±06	0~±15	0~±20	0~±25	0~±30
Turns ratio N _p /N _s (T)	1:600	1:750	1:500	1:625	1:1500
Inside resistance R _M (Ω)	200±0.1%	100±0.1%	50±0.1%	50±0.1%	100±0.1%
Output voltage V _o (V)	2.500±2.000*(IP/IPN)				
Output voltage V _o (V)	@IP=0,T=25°C			2.500	
Supply voltage V _C (V)				+5.0 ±5%	
Accuracy X _G (%)	@IPN,T=25°C			< ±0.7	
Offset voltage V _{OE} (mV)	@IP=0,T=25°C			< ±25	
Temperature variation of V _{OE} V _{OT} (mV/°C)	@IP=0,-40 ~ +85°C			< ±0.5	
Linearity error ε _r (%FS)				< 0.1	
Di/dt accurately followed (A/μs)				> 50	
Response time t _{ra} (μs)	@90% of IPN			< 1.0	



Cheemi Technology Co., Ltd

Tel: 025-85996365

E-mail: info@cheemi-tech.com

www.cheemi-tech.com

Add:N22, Xianlongwan, Xianyin South Road, Qixia District, Nanjing - China.

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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: $\pm 0.2\text{mm}$ Primary through-hole: $D8.5 \pm 0.15\text{mm}$ Fixed pin: $0.8 * 0.9 \pm 0.15\text{mm}$; 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 is fully filled with.
- The primary conductor should be <math>< 100^{\circ}\text{C}</math>.

WARNING : Incorrect wiring may cause damage to the sensor.



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