



DATA SHEET

Hall Effect Current Sensor

PN: CHB_LX5S6

IPN=05~25A

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

- The application of variable frequency electrical appliances
- 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	CHB05LX5S6	CHB10LX5S6	CH15LX5S6	CHB25LX5S6
Rated input Ip(A)		05	10	15	25
Measuring range Ip(A)		0 ~ ±16	0 ~ ±32	0 ~ ±48	0 ~ ±80
Size of Input pin *d (MM)		Ø1.0	Ø1.0	Ø1.0	Ø1.4
Turns ratio Np/NS (T)		2:1600	1:1600	1:1200	1:2000
Inside resistance RM(Ω)		100±0.1%	100±0.1%	50±0.1%	50±0.1%
Output voltage Vo(V)		2.500±0.625*(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 er(%FS)				< 0.1	
Di/dt accurately followed (A/μs)				> 50	



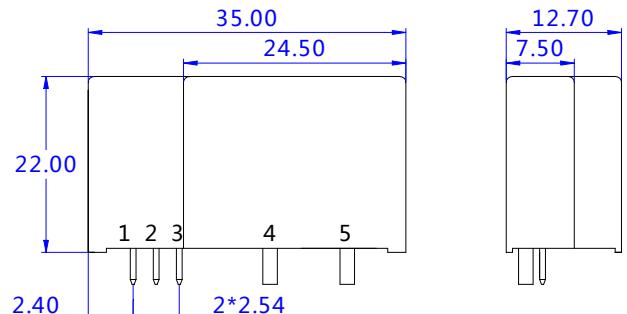
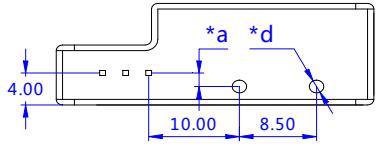
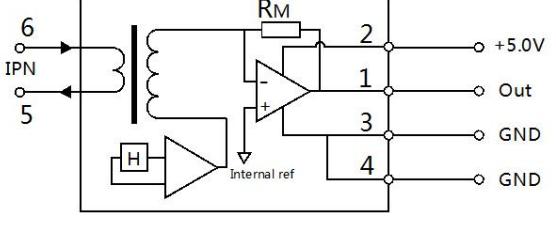
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Response time tra(μs)	@90% of IPN	< 1.0
Power consumption IC(mA)		10+Is
Bandwidth BW(KHZ)	@-3dB,IPN	DC-200
Insulation voltage Vd(KV)	@50/60Hz, 1min,AC	2.5

General data:

Parameter	Value
Operating temperature TA(°C)	-40 ~ +85
Storage temperature TS(°C)	-55~+125
Mass M(g)	12
Plastic material	PBT G30/G15, UL94- V0;
Standards	IEC60950-1:2001 EN50178:1998 SJ20790-2000

Dimensions(mm):

 				
	General tolerance General tolerance:< ±0.2mm size of Primary pin : *d (Find the electrical data) ; Secondary pin:3pin 0.25*0.5;			
Size of primary pin & Distance (mm)				
Type	05LX	10LX	15LX	25LX
*a	1.3	1.4	1.6	1.6
*d	1.0	1.0	1.0	1.4

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.

