



DATA SHEET

Hall Effect Current Sensor

PN: CHB_PS5S6

IPN=05~25A

Feature

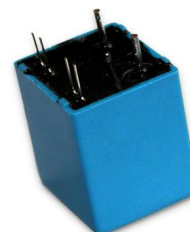
- Closed- loop (compensated) current transducer
- Capable measurement of currents: DC, AC,pulse with galvanic isolation between primary circuit and secondary circuit.
- Supply voltage: DC +5.0V
- PCB mounting installation

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)

Ref Parmeter	CHB05PS5S6	CHB10PS5S6	CH15PS5S6	CHB25PS5S6
Rated input Ipn(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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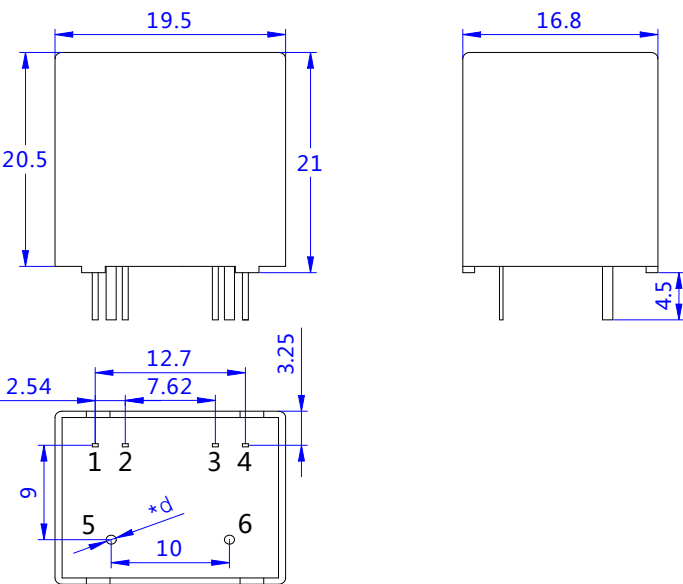
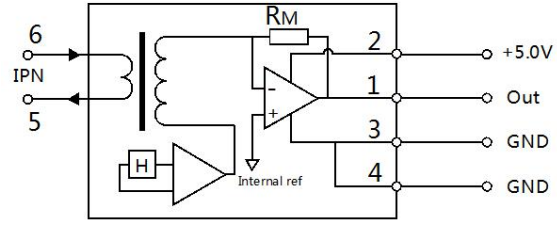
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Response time $t_{ra}(\mu s)$	@90% of IPN	< 1.0
Power consumption IC(mA)		10+Is
Bandwidth BW(KHZ)	@-3dB,IPN	DC-200
Insulation voltage Vd(KV)	@50/60Hz, 1min,AC	2.5

General data:

Parameter	Value
Operating temperature $T_A(^{\circ}C)$	-40 ~ +85
Storage temperature $T_S(^{\circ}C)$	-55~ +125
Mass M(g)	12
Plastic material	PBT G30/G15, UL94- V0;
Standards	IEC60950-1:2001
	EN50178:1998
	SJ20790-2000

Dimensions(mm):

 Top view dimensions: 19.5 (width), 20.5 (height), 21 (height), 16.8 (width), 4.5 (height). Bottom view dimensions: 2.54 (width), 12.7 (width), 7.62 (width), 3.25 (height), 9 (height), 10 (width), *d (hole diameter).		Connection  General tolerance General tolerance: < $\pm 0.2mm$ size of Primary pin : *d (Find the electrical data) ; Secondary pin: 3pin 0.25*0.5;
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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 <100°C.

WARNING : Incorrect wiring may cause damage to the sensor.



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