

DATA SHEET Hall Effect Current Sensor

PN: CHB PS3S6 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. PCB mounting installation

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

Very good linearity

Supply voltage: DC +3.3V

Can be customized











Electrical data:	(Ta=25°C,	Vc=+3.3VDC,F	KL=2K\O,CL=10000	JpF)

Ref Parmeter	CHB05PS3S6	CHB10PS3S6	CHB15PS3S6	CHB25PS3S6
Rated input Ipn(A)	05	10	15	25
Measuring range Ip(A)	0 ~ ±10	0 ~ ±20	0 ~ ±30	0~±50
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 $RM(\Omega)$	100±0.1%	100±0.1%	50±0.1%	50±0.1%
Output voltage Vo(V)	1.650±0.625*(IP/IPN)			
Output voltage Vo(V)	@IP=0,T=25°C 1.650			
Supply voltage VC(V)	+3.3 ±5%			
Accuracy XG(%)	@IPN,T=25°C <±0.7			
Offset voltage VOE(mV)	@IP=0,T=25°C <±20			
Temperature variation of VOE VOT(mV/°C)	@IP=0,-40 \sim +85°C $< \pm 0.5$			
Linearity error εr(%FS)	< 0.1			
Di/dt accurately followed (A/µs)	> 50			
Response time tra(µs)	@90% of IPN < 1.0			



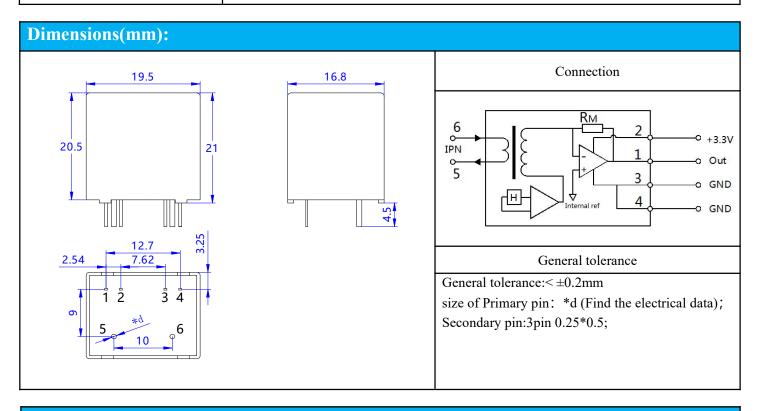
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Power consumption IC(mA)		10+Is	
Bandwidth BW(KHZ)	@-3dB,IPN	DC-200	
Insulation voltage Vd(KV)	@50/60Hz, 1min,AC	2.5	

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;			
	IEC60950-1:2001			
Standards	EN50178:1998			
	SJ20790-2000			



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.

