



# DATA SHEET

## Hall Effect Current Sensor

PN: CHB\_DS3S6

IPN=06~50A

### Feature

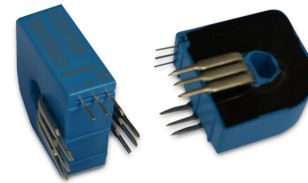
- Closed- loop (compensated) current transducer
- Capable measurement of currents: DC, AC, pulse with galvanic isolation between primary circuit and secondary circuit.
- Supply voltage: DC +3.3V
- PCB mounting installation

### 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=+3.3VDC, RL=2KΩ, CL=10000pF)

Parameter	Ref	CHB06DS3S6	CHB15DS3S6	CH25DS3S6	CHB50DS3S6
Rated input Ip(A)		06	15	25	50
Measuring range Ip(A)		0~±12	0~±30	0~±50	0~±100
Turns ratio Np/NS (T)		1:960	1:1200	1:1000	1:2000
Inside resistance RM(Ω)		100±0.1%	50±0.1%	25±0.1%	25±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 ~ +85°C	< ±0.5			
Linearity error er(%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):																													
	<p><b>Connection</b></p>																												
	<p><b>General tolerance</b></p> <p>General tolerance: &lt;math&gt;\pm 0.2\text{mm}&lt;/math&gt;            Primary through-hole &amp; size of Primary pin :  <math>4.4 \times 6.6 \pm 0.15\text{mm}</math> ; <math>0.8 \times 0.9 \pm 0.15\text{mm}</math> ;            Secondary pin: 3pin <math>0.25 \times 0.5</math>;</p>																												
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Remarks:
<ul style="list-style-type: none"> <li>➤ When the current goes through the primary pin of a sensor, the voltage will be measured at the output end.</li> <li>➤ Custom design is available for the different rated input current and the output voltage.</li> <li>➤ The dynamic performance is the best when the primary hole is fully filled with.</li> <li>➤ The primary conductor should be &lt;math&gt;&lt; 100^\circ\text{C}&lt;/math&gt;.</li> </ul>
<p><b>WARNING : Incorrect wiring may cause damage to the sensor.</b></p>

