

DATA SHEET Hall Effect Current Sensor

PN: CHB BS3S6H

IPN=20~200A

• Supply voltage: DC +3.3V

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

Electrical data: (Ta=25°C, Vc=+3.3VDC,RL=2K Ω ,CL=10000pF)

@90% of IPN

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



Very good linearity

Can be customized









Ref Parmeter	CHB20BS3S6H	CHB50BS3S6H	CH100BS3S6H	CHB200BS3S6H
Rated input Ipn(A)	20	50	100	200
Measuring range Ip(A)	0∼±20	0~±50	0~±100	0~±200
Turns ratio Np/NS (T)	1:2000	1:2500	1:4000	1:4000
Inside resistance $RM(\Omega)$	31.25±0.1%	15.6±0.1%	12.5±0.1%	6.25±0.1%
Output voltage Vo(V)	1.650±0.625*(IP/IPN)			
Output voltage Vo(V)	@IP=0,T=25°C 1.650			
Reference voltage VR(V)	@Internal reference,reout 1.650			
Supply voltage VC(V)	+3.3 ±5%			
Accuracy XG(%)	@IPN,T=25°C <±0.5			
Offset voltage VOE(mV)	@IP=0,T=25°C <±10			
Temperature variation of VOE VOT(mV/°C)	@IP=0,-40 \sim +85°C $< \pm 0.05$			
Linearity error $\varepsilon r(\%FS)$	< 0.1			
Di/dt accurately followed (A/us)	> 50			



Response time tra(µs)

IC(mA)

Power consumption

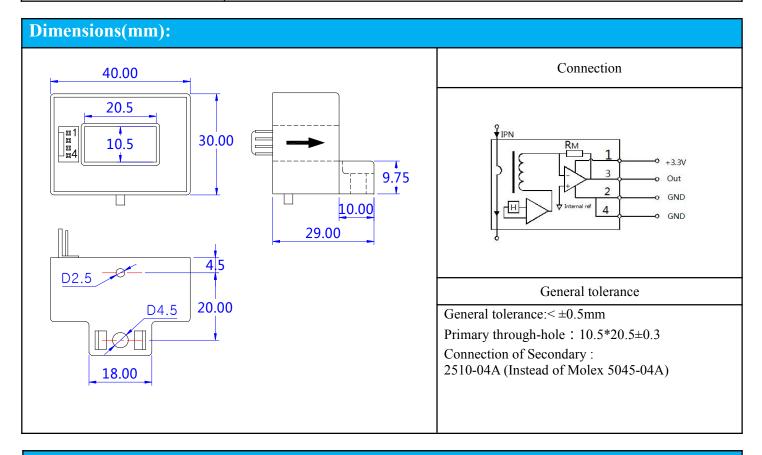
< 1.0

10+Is

Cheemi Technology Co., Ltd

Bandwidth BW(KHZ)	@-3dB,IPN	DC-200
Insulation voltage Vd(KV)	@50/60Hz, 1min,AC	3.0

General data:			
Parameter	Value		
Operating temperature TA(°C)	- 40 ∼ +85		
Storage temperature TS(°C)	-55~ +125		
Mass M(g)	70		
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.

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The primary conductor should be <100°C.

WARNING: Incorrect wiring may cause damage to the sensor.

