



DATA SHEET

Hall Effect Current Sensor

PN: CHB_LTR5S2

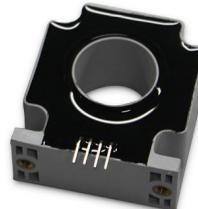
IPN=25~100A

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 customi



RoHS

Applications

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

Electrical data: (Ta=25°C, Vc=+5.0VDC,RL=2KΩ,CL=10000pF)

Parameter	Ref	CHB25LTR5S2	CHB50LTR5S2	CH75LTR5S2	CHB100 LTR5S2
Rated input Ipn(A)		25	50	75	100
Measuring range Ip(A)		0 ~ ±25	0 ~ ±50	0 ~ ±75	0 ~ ±100
Turns ratio Np/NS (T)		1:1250	1:2500	1:1875	1:2500
Inside resistance RM(Ω)		100±0.1%	100±0.1%	50±0.1%	50±0.1%
Output voltage Vo(V)		2.500±2.000*(IP/IPN)			
Output voltage Vo(V)	@IP=0,T=25°C	2.500			
Reference voltage VR(V)	@Internal ref,ref out model	2.500			
Reference voltage VR(V)	@External ref,ref in model	1.9~2.7			
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			



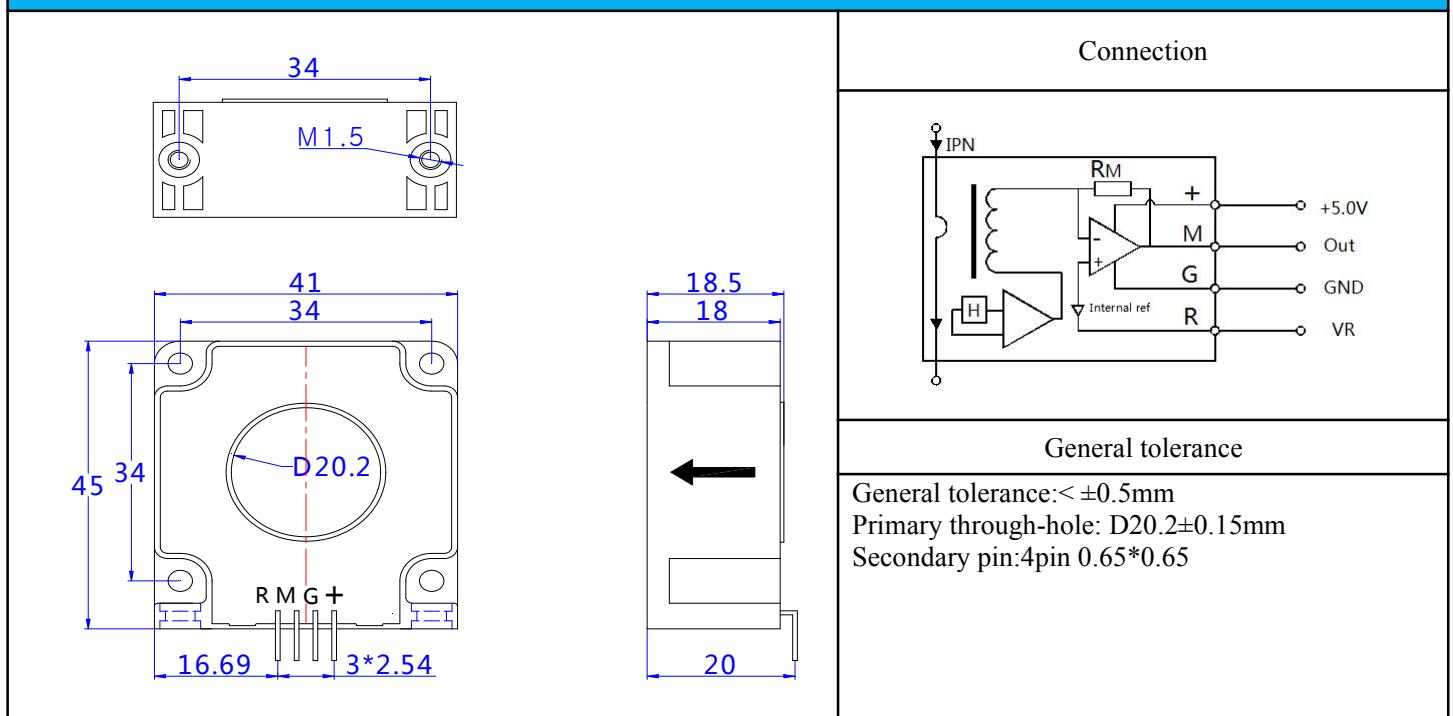
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Di/dt (A/ μ s)	> 50
Response time tra(μ s)	@90% of IPN < 1.0
Power consumption IC(mA)	10+Is
Bandwidth BW(KHZ)	@-3dB,IPN DC-200
Insulation voltage Vd(KV)	@50/60Hz, 1min,AC 6.0

General data:

Parameter	Value
Operating temperature TA(°C)	-40 ~ +85
Storage temperature TS(°C)	-55~ +125
Mass M(g)	32
Plastic material	PBT G30/G15, UL94- V0; IEC60950-1:2001
Standards	EN50178:1998 SJ20790-2000

Dimensions(mm):



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.



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