DATA SHEET
Hall Effect Current Sensor

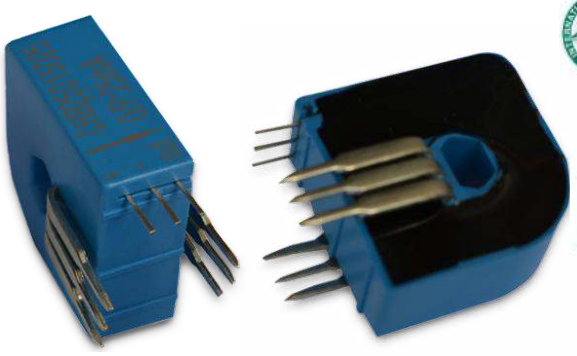
PN: CHB_D15D25 | **IPN=25/50A**

Feature

- Closed- loop (compensated) current transducer
- Supply voltage: DC ±12 ~ 15 V
- Capable measurement of currents: DC, AC,pulse with galvanic isolation between primary circuit and secondary circuit.

Advantages

- High accuracy
- Easy installation
- Low temperature drift
- Optimized response time
- Low power consumption
- High immunity to external interference



Applications

- The application of induction cooker
- AC/DC variable-speed drive
- Uninterruptible Power Supplies (UPS)
- Switched Mode Power Supplies (SMPS)
- Inverter applications

Electrical data：（Ta=25℃， Vc= ±15VDC）

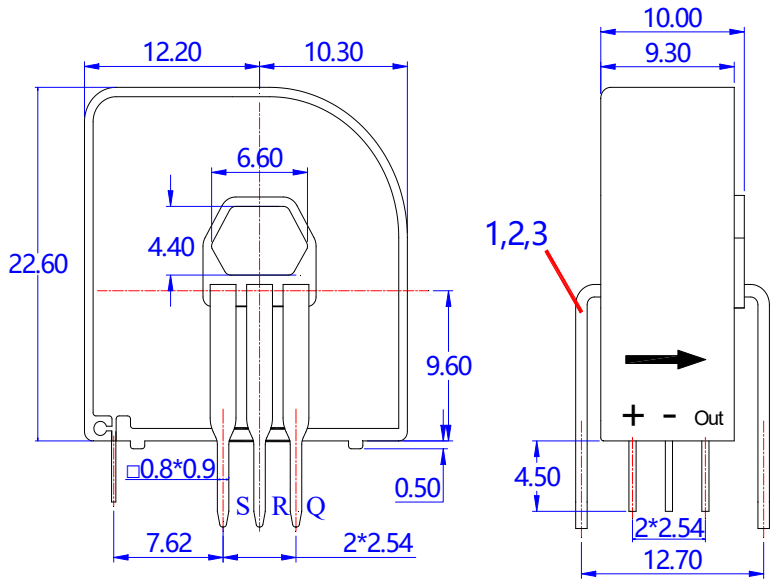
Parmeter \ Ref	CHB25D15D25	CHB50 D15D25
Rated input Ipn(A)	25	50
Measuring range Ip(A)	0 ~ ±50	0 ~ ±100
Turns ratio Np/NS (T)	1:1000	1:2000
Output current rms IS(mA)	±25*IP/IPN	±25*IP/IPN
Secondary coil resistance RS (Ω)	30	40
Inside resistance RM (Ω)	[(VC-2.0V)/(IS*0.001)]-RS	
Supply voltage VC(V)	(±12 ~ ±15) ±5%	
Accuracy XG(%)	@IPN,T=25°C	< ±0.5
Offset current IOE(mA)	@IP=0,T=25°C	< ±0.2
Temperature variation of IOE IOT(mA/°C)	@IP=0,-40 ~ +85°C	< ±0.5
Linearity error εr(%FS)	< 0.1	
Di/dt accurately followed（A/μs）	> 50	

Response time tra(μs)	@90% of IPN	< 1.0
Power consumption IC(mA)		15+Is
Bandwidth BW(KHZ)	@-3dB,IPN	DC-100
Insulation voltage Vd(KV)	@50/60Hz, 1min,AC	4.0

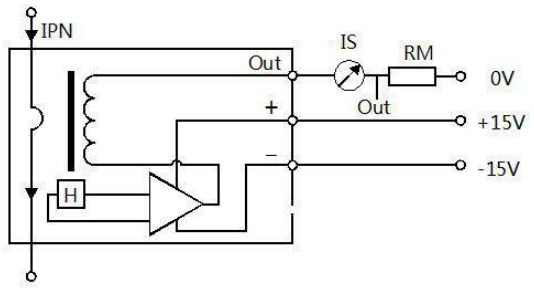
General data:

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):



Connection



General tolerance

General tolerance: <±0.2mm

Primary through-hole& size of Primary pin:

4.4*6.6±0.15mm; 0.8*0.9±0.15mm;

Secondary pin:3pin 0.25*0.5

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.