



# DATA SHEET

## Hall Effect Current Sensor

PN: CHK\_LB5S2

IPN=50 ~ 300A

### Feature

- Open- loop
- Capable measurement of currents: DC, AC, pulse with galvanic isolation between primary circuit and secondary circuit.
- Supply voltage: DC +5.0V

### Advantages

- Excellent accuracy
- Easy installation
- Optimized response time, no insertion losses
- High immunity to external interference
- Low temperature drift
- Very good linearity
- Can be customized

### Applications

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

CE  
RoHS



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

Parameter \ Ref	CHK50LB5S2	CHK100LB5S2	CHK200LB5S2	CHK300LB5S2
Rated input Ipn(A)	50	100	200	300
Measuring range Ip(A)	0 ~ ±50	0 ~ ±100	0 ~ ±200	0 ~ ±300
Output voltage Vo(V)	2.500±2.000*(IP/IPN)			
Output voltage Vo(V)	@IP=0, T=25°C		2.500	
Supply voltage Vc(V)	+5.0 ±5%			
Accuracy XG(%)	@IPN, T=25°C		< ±1.0	
Offset voltage VOE(mV)	@IP=0, T=25°C		< ±30	
Temperature variation of VOE VOT(mV/°C)	@IP=0, -40 ~ +85°C		< ±1.0	
Linearity error εr(%FS)	< 1.0			
Di/dt accurately followed (A/μs)	> 100			
Response time tra(μs)	@90% of IPN		< 3.0	
Power consumption IC(mA)	15			
Bandwidth Bw(KHZ)	@-3dB, IPN		DC-20	
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)	25
Plastic material	PBT G30/G15, UL94- V0;
Standards	IEC60950-1:2001
	EN50178:1998
	SJ20790-2000

Dimensions(mm):	
	<p style="text-align: center;">Connection</p>
General tolerance	
<p>General tolerance: &lt;math&gt;\pm 0.5\text{mm}&lt;/math&gt;            Primary through-hole : <math>D16.0 \pm 0.15</math>            Connection of secondary :            5pin <math>0.635 \times 0.635</math></p>	

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 if fully filled with.</li> <li>➤ The primary conductor should be <math>&lt; 100^{\circ}\text{C}&lt;/math&gt;.</math></li> </ul>
<p><b>WARNING : Incorrect wiring may cause damage to the sensor.</b></p>

