

DATA SHEET

Hall Effect Current Sensor



PN: CHK_LB15D4

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 $\pm 12 \sim 15V$

Advantages

- High accuracy
- Easy installation
- No insertion losses
- Low power consumption
- Wide current measuring range
- High immunity to external interference

Applications

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



RoHS



Electrical data: ($T_a=25^\circ C$, $V_c=\pm 15VDC$, $R_L=10K\Omega$)

Parameter \ Ref	CHK50LB15D4	CHK100LB15D4	CHK200LB15D4	CHK300LB15D4
Rated input $I_{pn}(A)$	50	100	200	300
Measuring range $I_p(A)$	$0 \sim \pm 150$	$0 \sim \pm 200$	$0 \sim \pm 400$	$0 \sim \pm 450$
Output voltage $V_o(V)$	$\pm 4.0 * (I_p / I_{PN})$			
Load resistance $R_L(K\Omega)$	> 10			
Supply voltage $V_C(V)$	$(\pm 12 \sim \pm 15) \pm 5\%$			
Accuracy $X_G(\%)$	@IPN, $T=25^\circ C$	$< \pm 1.0$		
Offset voltage $V_{OE}(mV)$	@IP=0, $T=25^\circ C$	$< \pm 25$		
Temperature variation of VOE $V_{OT}(mV/^\circ C)$	@IP=0, $-40 \sim +85^\circ C$	$< \pm 1.0$		
Hysteresis offset voltage $V_{OH}(mV)$	@IP=0, after $1 * I_{PN}$	$< \pm 20$		
Linearity error $\epsilon_r(\%FS)$	< 1.0			
Di/dt accurately followed ($A/\mu s$)	> 100			

Response time $t_{ra}(\mu s)$	@90% of IPN	<3.0
Power consumption $I_C(mA)$		15
Bandwidth $B_w(KHZ)$	@-3dB, IPN	DC-20
Insulation voltage $V_d(KV)$	@50/60Hz, 1min,AC	2.5

General data:

Parameter	Value
Operating temperature $T_A(^{\circ}C)$	-40 ~ +85
Storage temperature $T_S(^{\circ}C)$	-55~ +125
Mass $M(g)$	25
Plastic material	PBT G30/G15, UL94- V0;
Standards	IEC60950-1:2001
	EN50178:1998
	SJ20790-2000

Dimensions(mm):

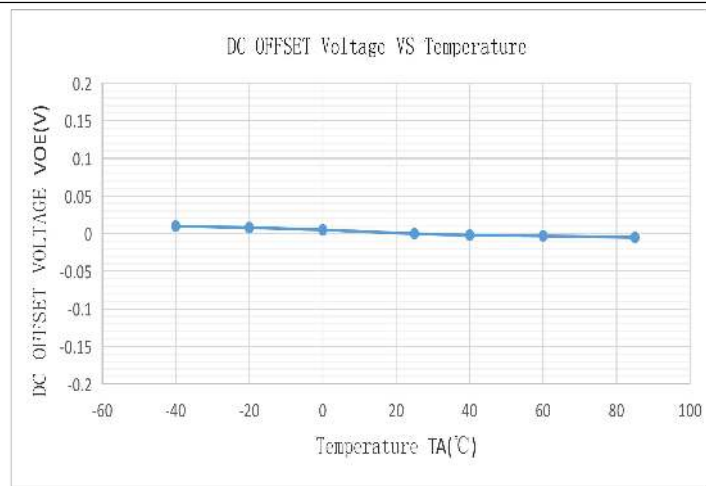
	<p style="text-align: center;">Connection</p>
	<p style="text-align: center;">General tolerance</p> <p>General tolerance: <math>\pm 0.5mm</math> Primary through-hole: $D16.0 \pm 0.15$ Connection of secondary : 5pin 0.635*0.635</p>

Remarks:

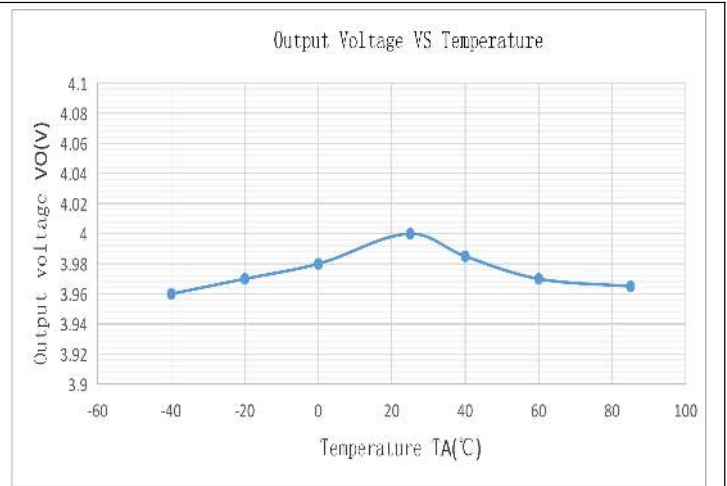
- When the current goes through the primary pin of a sensor, the voltage will be measured at the output end.
- Custom design is available for the different rated input current and the output voltage.
- The dynamic performance is the best when the primary hole if fully filled with.
- The primary conductor should be <math>< 100^{\circ}C</math>.

WARNING : Incorrect wiring may cause damage to the sensor.

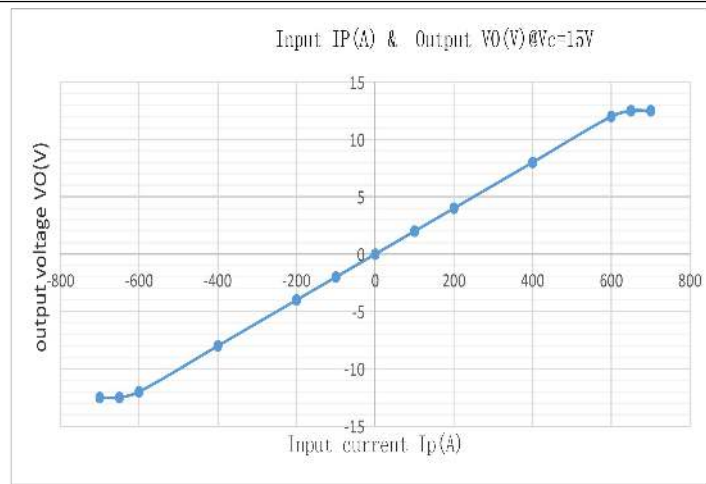
Reference Data:



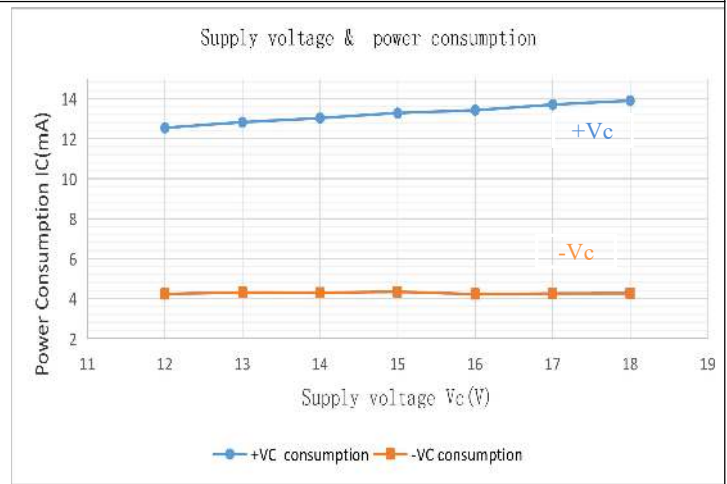
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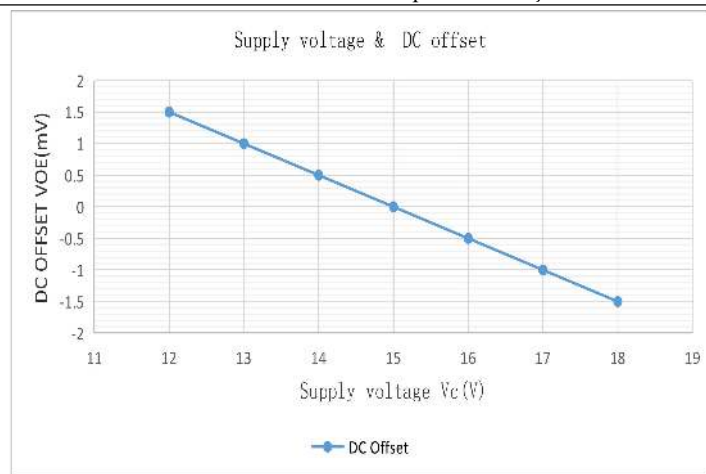
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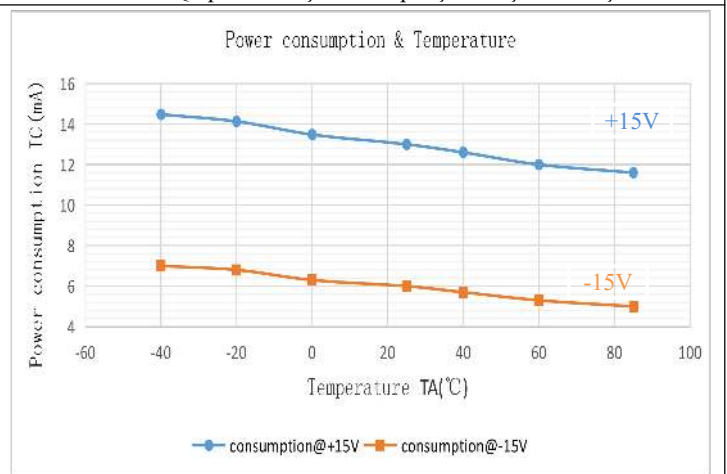
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